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Conference Proceedings

Reclaiming the Quality in Healthcare

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We have always believed that everyone should get involved in improving healthcare, and our mission at the International Forum on Quality and Safety in Healthcare has always been just to do that - make healthcare improvement simple, support effective innovation and provide practical ideas that can be implemented in the workplace.

The Conference Proceedings contains work submitted to us via our Call for Posters for this year's International Forum taking place in Amsterdam, on 2-4 May 2018.

The work volunteered by abstract authors for inclusion in this booklet is a reflection and a celebration of what the global quality improvement community has achieved over the past few years. You will find many projects from teams in countries such as the UK, Netherlands, Taiwan, United States, Denmark, Singapore, Canada, and many more.

Thank you to all those who have shared their work and have made it available in this digital format.

We hope you enjoy this selection of abstracts and will join the International Forum improvement community to share your experiences, challenges, improvement successes and failures at our future events.

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We would like to thank our colleagues for their time spent reviewing over 900 poster abstracts submitted to the International Forum.



Abstract reviewers

We would like to thank our colleagues for their time spent reviewing poster and improvement science research abstract submissions.

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Building capability through networks: the UCLPartners Improvement Fellows Programme

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Background

The UCLPartners Improvement Fellows Programme is an initiative aimed at creating a peer support network, going beyond traditional institutional boundaries, connecting and supporting people with shared interests in quality improvement and safety.

Research suggests that networks contribute to healthcare improvement by providing a forum for experimentation and creating knowledge, exchanging information and spreading good practice. However, not all networks are equally effective and it can be difficult to measure their impact. In 2015, UCLPartners developed and launched our Improvement Fellows Programme aiming to further expand on existing opportunities for peer learning and support across the region and to tackle the barriers to improving the quality of health and care and outcomes for patients through creating connections.

Methods

Following strong interest in the founding cohort of the Q Initiative, UCLPartners developed an opportunity for improvers to connect and to harness the enthusiasm across the region in having a peer support network. The resulting programme enables participants to be part of an enduring network of like-minded people, who can turn to each other for inspiration, support and expertise beyond their current local and professional networks.

Open to individuals from all backgrounds with some experience of improvement, but more importantly a demonstrable passion and enthusiasm improvement and the benefits it can bring to patients and staff. Features include:

- Learning sessions on topics such as person-centred care, human factors, appreciative inquiry and the science of improvement
- Access to learning resources for fellows and their teams
- Action Learning Sets, supporting fellows to find practical ways of addressing the challenges they face
- Formal and informal networking opportunities.

Outcome

The programme's reputation is growing. We received 50 applications for the first cohort in 2015 and selected 22 participants. The following year, applications grew to 148 and we selected 38 participants. We recruited the third cohort of 28 participants in December 2017.

We evaluate each session, with fellows asked to rate content as well as opportunities for networking. Feedback is consistently positive, with an average of 92% rating each session 'excellent' or 'good' in terms of overall value.

Our open, competitive application process has widened the UCLPartners audience and network, thus increasing our overall impact. Fellows report increased skills and knowledge and use the network to share learning and implement improvements in their organisations. We are seeing the impact of the network through increased, ongoing cross-organisational work. For example, one fellow in Essex is developing a local improvement hub, connecting with other fellows and the wider network.

Conclusion

- A structured development programme for a large, diverse, multi-professional group maximises opportunities for sharing learning across boundaries and an enduring network
- Informal networking is important and, as well as more structured discussion, should have dedicated time, as this supports the lasting impact of the network
- Selecting individuals on their passion and motivation for improvement has more lasting value for a growing network than selecting on experience and expertise alone
- Applicants with strong organisational support get more out of the programme and share more with their organisation.
- Those who engage fully in the programme and network will reap the benefits of the network and associated opportunities more than those who are less engaged.
- Organisations need to support individuals who are passionate about improvement and quality and release them for continuous learning opportunities and enabling sharing locally.

Development of web-based care innovation for patients with heart disease. Lessons learnt from a participatory design study

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Background

The use of telemedicine technologies in health care has increased substantially, together with a growing interest in participatory design methods when developing telemedicine approaches. Ideally, participatory design should be initiated as early in the design phase as possible and in a setup, that involves representatives of all major end user groups. User involvement will increase the likelihood of creating technological solutions that meet the needs and preferences of end users in their specific social and organizational contexts. In turn, this is likely to enhance efficacy and to ensure that the product makes a difference to patients and the health care system, while also increasing the likelihood of successful implementation in clinical practice.

Objective: We present lessons learned from a case study involving patients with heart disease and health care professionals in the development of a personalized Web-based health care intervention.

Methods

Our study was carried out as part of the ACQUIRE project (AdvanCe the QUality of life and caRE), aiming to contribute to the development and design of a web-based care innovation for patients with heart disease. The care innovation was based on a modular platform made available to end users as a web application. The care innovation was expected to increase patient empowerment by encouraging them to become co-managers of their own disease.

Design: We used a participatory design approach. We collected qualitative data using multiple methods in 3 workshops and analyzed the data using thematic analysis. Participants were 7 patients and 2 nurses, 1 physician, 2 systems architects, 3 moderators, and 3 observers. Following each workshop, observational notes and transcriptions of discussions were analysed by means of thematic analysis. The transcripts and observational notes were coded and core themes were then identified, mapping end users' experiences and attitudes.

Outcome

Users gave valuable feedback on ease of use of the platform, platform design, terminology, and insights into patients' monitoring needs, information and communication technologies skills, and preferences for self-management tools.

Patients and health professionals contributed different perspectives, with the patients using an experience-based approach and the health professionals using an attitude-based approach. A key finding is that given the heterogeneity of patients with heart disease, it is important that both the interface and the content can be targeted to the individual patient. The most distinct difference between patients and health professionals was their different ways of approaching the participatory process; patients actively engaged themselves in the process and contributed with experience-based input, whereas health professionals were more likely to observe and help patients and thus contribute with input of authoritarian and health professional character.

Conclusion

The definition of a participatory design is broad and slightly ambiguous; though, a participatory design should ideally be initiated in the early phases of the design process; our process is more likely to be a collaborative evaluation or participatory customisation process. A participatory design involves 'more than having a voice'; it involves affecting the outcome as in 'having a say' - and when it comes to how our workshops actually helped shape the platform, it is more a question of 'how' instead of 'what'; as in customising the usability of the specific platform, more than deciding what it takes to empower and encourage patients.

Both patients and health care professionals revealed different perspectives with patients' experience-based approach and health care professionals' more attitude-based approach. We also learnt that patients engage actively and willingly in the process, whereas it was more challenging than expected to include and engage health care professionals.

The Impacts of Quality Improvement Strategies on the Performance of Primary Healthcare Organisations. The Case Study of the Accreditation Process in Lebanon

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Background

This study has been done in Lebanon, where the Accreditation process for the implementation of quality standards in the Primary Healthcare sector (MoPH in collaboration with Accreditation Canada International) began in 2009, targeting the Ministry of Public Health's network of Primary Healthcare Organisations, from both the public and private sectors, with the first formal award ceremony for accredited centres in 2016. The researcher's client population, as the main focus of this work, involves key-informant figures from national and international stakeholders, the first cohort of the "National Lebanese Surveyors", in addition to local community representatives and some patients who are frequent visitors of the centres.

Methods

In this study, qualitative methods have been used: semi-structured interviews with main key-informants, focus groups with frequent visitors of the centers represented in communities' committees, field observations, healthcare providers feedback, in addition to a Focus Discussion Group with the experienced NLS to determine some pragmatic "Best Practices" and Key Success Factors for the incremental implementation of this primary healthcare reform of the Accreditation process in Lebanon as a quality improvement reform.

Outcome

According to the results of the methods used and to Literature review, the main effects of this implemented change were the improvement of the following processes in the targeted Primary Health Care (PHC) Organisations that underwent the Accreditation process, enhancing thus the overall performance of the system: leadership and management, interdisciplinary teamwork, safety and risk management, policies and procedures, documentation, customer service, governance and accountability, health information systems, evidence-based health, community engagement, coordination and collaboration. Furthermore, the author has created a conceptual framework of Best Practices in PHC, based on the field visit surveys of the first cohort of National Lebanese Surveyors, which will be shared with the leadership teams of prospective accredited centers in order to support the implementation of the Accreditation Canada International quality standards.

Conclusion

The key-message for the change management process of the Accreditation of the Primary Healthcare Sector in Lebanon is that the implementation of quality improvement standards by engaged leaders, delivered by empowered teams, lead to a better comprehensive people-centered evidence-based health system with high performance and safe patients' outcomes.

In conclusion, the Accreditation process in Lebanon is an incremental reform of change that has improved the performance of the Primary Health Care sector. However, the main challenge will be its sustainability, mainly through a cultural transformation of quality improvement and a patient-focused healthcare comprehensive system, with adequate administrative and clinical good governance.

Safer collaborative primary care for community dwelling individuals with dementia: the DementiaNet approach

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Background

The DementiaNet approach has been developed at the Radboud Alzheimer Centre and introduced in 20 Primary care community networks in the Netherlands. The rising incidence and policies to keep dementia patients in their own homes are increasingly putting pressure on primary care systems and budgets. Redesign of primary care is required to meet dementia patients' needs. In the Netherlands, current dementia care still falls short in areas including ad hoc collaboration, lack of feedback on quality to professionals involved, and incomplete implementation of established multidisciplinary guidelines. The theoretical framework beneath DementiaNet includes collaborative network theories, like the conceptual framework of partnership collaboration. We also applied best-practice models on quality improvement, including the Improvement Model / Plan- Do-Check-Act, and evidence from previously implemented collaboration models, e.g. the ParkinsonNet and Healthy Aging Brain Care model.

Methods

The DementiaNet program stimulates development of primary care networks of medical, nursing and welfare professionals for community-dwelling dementia patients through practice facilitation. DementiaNet networks are formed via a stepwise approach. The programme for each network is tailored to the members' own needs and priorities. This tailor-made approach requires the guidance of each DementiaNet Team in supporting primary care networks through implementation of five core processes: network-based care, clinical leadership, quality improvement cycles, inter- professional practice-based training, and communication support tools. Various steps to support the network are undertaken over a two-year period. As a wide variety of dementia care practice exists between regions, the DementiaNet approach must be adapted to local settings and needs. This study aimed to provide insight into the merits and drawbacks of this program, mechanisms and which contextual factors influenced them.

Outcome

Thirteen networks were successfully initiated in the program, consisting of a median of 9 professionals. Overall, the networks showed an average yearly increase of 2.03 (95% CI 1.20-2.96) on network maturity and 8.45 (95% CI 2.80-14.69) on quality indicator sum scores. Mixed methods interpretation revealed patterns regarding network and contextual factors enabling the transition towards more mature networks and better quality of care.

Conclusion

Participation in the DementiaNet program was associated with increased network maturity and subsequent beneficial effects on quality of care. Adaptation towards a more mature network seemed to favour quality of care improvements.

Developing a clear development programme for registered nursing staff in Adult Critical Care

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Background

Leeds Teaching Hospitals Trust is a large acute NHS trust in the North of England with 70 Adult Critical Care beds encompassing regional centres for Transplantation, Cardiac surgery ,Neurosurgery and Trauma.

In 2015 it was determined that there was an inconsistent approach to registered staff training and development across Adult Critical Care (ACC) with no defined strategy for education and training.

In October 2015 ACC had an establishment shortfall, with many experienced staff leaving and being replaced with newly registered staff.

A review of existing education and training for the CSU staff was undertaken by the Clinical Quality Team along with a training needs analysis in Oct 2015.

This was discussed with unit leads and the Head of Nursing for ACC and a strategy for education and training was developed encompassing all nursing staff within the CSU

Methods

An approach was taken to develop packages under a comprehensive umbrella of education and training. These were designed around safety and delivering high quality patient care.

They included competency packages and role development programmes with condition specific workbooks and educational inset sessions to compliment them.

These enable staff to have a clear pathway within their role and to develop the skills necessary to be competent critical care practitioners, working alongside the national competency packages for Critical care.

The development packages for CSW and Assistant Practitioners develop additional skills needed for critical care and in addition we developed a clear programme for being a preceptor within the CSU, giving staff the essential skills required whilst empowering them within the mentor role

Our Clinical Practice Educators work alongside new starters within the CSU helping them to develop and supporting them through their Critical Care journey.

Outcome

We have shown a consistent improvement in training compliance and metrics data over the last 18 months with our most recent figures showing 93% compliance with mandatory training

Staff retention has improved in 2017 and recruitment has also seen an improvement with Adult Critical Care being seen as a good place to work.

The Staff survey results also evidence this.

Qualitative evidence gathered as feedback from staff shows enthusiasm for the development packages from all those who have been using them to date as they offer a fair and consistent approach for all staff.

Feedback for the inset days has been positive with many recommending these days to their colleagues and it has been shown to benefit staff experience. We now have a waiting list for those wishing to attend. It has also evidenced a feeling of greater staff empowerment amongst our new starters.

Conclusion

The delivery of this programme would not be possible without involvement, time and effort from our patients, carers, Clinical Practice Educators and the full Multi - disciplinary Team

It is a collaborative effort.

We now need to maintain these improvements and we plan to undertake a review of the training needs analysis so that we are flexible and responsive to the feedback and new service demands ensuring continued delivery of high quality education and training.

DO IT - it is worth the investment

PreHomeCare- going home early after premature birth

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Background

Premature infants and their parents are discharged earlier from hospital and sent home in early in-homecare programs. Effect studies of early in-homecare point towards that premature infants have lower risk of infections under the period of tube feeding, higher parental satisfaction and indicate that early in-homecare of premature infants benefit of home visits with fewer readmissions and less unscheduled support, shorter length of hospital stay and longer provision of breast milk. Standard procedure in early in-homecare is home visits but in regions of Denmark with large distances to the parent/infant this is not possible.

No studies have until now offered 24-7 hours home visit support. Further research regarding the use of health IT is needed to say, whether the use of videoconference (participatory guidance) and Smartphone application (knowledge and data registration) is a viable option to address the parents need for support in relations to early discharge.

Methods

The project will be conducted in 4 neonatal wards in Denmark. Parents will be randomized to either intervention or control group via simple randomization procedure. The intervention group will receive a Smartphone application and videoconferencing system. The control group includes hospital consultations (usual care) on the hospital 2-3 times a week.

Outcome

Outcome will be measured using proportion of exclusive breastfeeding, MABISC-Mother And Baby Interaction Scale, KPCS -KaritaneParenting Confidence Scale.

Conclusion

The study is ongoing. Preliminary results indicate that more mothers in the control group quit breastfeeding compared to the intervention group.

We expect that the result will be positive.

Preventing pressure ulcers at Aalborg University Hospital 2015-2018

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Background

Aalborg University Hospital is the largest hospital in the North Denmark Region.

Aalborg University Hospital handles highly specialized regional functions for approximately 640,000 inhabitants.

The Team: A group of clinical experts (Orthopedic Surgeon, Wound Nurses, Physiotherapist, Occupational Therapist, Clinical Nursing Specialist and quality coordinators).

Client/Patient group: In-hospitalized adults patients in all wards (excluded is outpatients, day surgery, pregnant/birthing and children).

Methods

An interdisciplinary group of Physicians, Nurses, Therapists, Quality and IT staff was established to reduce the occurrence of hospital acquired pressure ulcers.

Identification of problem

- Baseline for pressure ulcers
- Interviews with care staff (Knowledge-gap)
- Documentation-tools

Remedy

- Changes to electronic medical journal
- Instructions and screening tools
- Information materials for patients/relatives and staff
- Education and training of key-staff
- New mattresses
- Hospital campaigns with site visits
- Test off preventive disposable materials and special pillows
- Validate and Evaluate
- Prevalence 4/year
- Maintain support and education of resources and staff

Measurement of improvement

A prevalence of pressure ulcers is carried out 4 times a year by the ward staff. Data is subsequent collected and processed at hospital level.

We use statistical process control and have data from 2013 to 2017.

Outcome

In recent measurements, we have detected a decrease in the occurrence of pressure ulcers, but it is not yet a stable low prevalence. We see a reduction in the occurrence of pressure ulcers in categories 3 and 4 and that the staff choose the correct type of relief material for risk patients.

We have some problems with registration in the electronic patient record, but are in progress to make it easier and more intuitive to register.

Conclusion

Pressure ulcer prevention is an extensive task that requires management attention and constant focus. The project is challenged with workdays characterized by bustle, patients that are more complex and resource shortage.

With the proper observation of the patients and with the right actions, staff can help prevent that pressure ulcers occurs or worsens.

Keep your focus, keep your patience and keep going.

Improving the care of patients with Acute Kidney Injury stage 3 using a multifaceted approach.

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Background

Patients with AKI stage 3 are known to have an increased morbidity and mortality associated with their illness. This includes an increased need for admission to critical care areas and prolonged inpatient stays in hospital.

Patients were reviewed as part of a NHS England care review in 2012. This found that patients in the local area had a slightly increased mortality and a prolonged length of stay compared to the national average.

Methods

A multifaceted approach to improvement was carried out. This included the implementation of the NHS England electronic algorithm, the introduction of a AKI Advanced Nurse Practitioner (AKI ANP) that would review the patients with AKI stage 3 and a education package for all clinical staff.

The AKI algorithm was implemented in April 2015, this highlighted the number of patients within our organisation that had AKI stage 3. The AKI ANP role was commenced in September 2015, with patient reviews starting in October 2015. Education for staff was commenced in September 2015, and has included an electronic learning package and bedside education for the nursing and medical staff caring for patients with AKI.

- Improvement has been measured using a repeat retrospective notes review. The measures of improvement were
- Number of patients with AKI stage 3
- Mortality
- Length of stay (LOS)
- LOS within critical care.

Outcome

The effects of the change were as follows.

- Reduction in the number of patients with AKI stage 3 by 18% .
- Reduction in mortality of patients with AKI stage 3 from 37% to 28%- an improvement of 9%.
- LOS reduction. Average LOS from 25.8 days to 20.5 days. A 5.3 day per patient reduction.
- Reduction in the LOS within critical care from 8 days to 7.5 days per patient.

Conclusion

Improving patient care for patients with AKI stage 3 has involved using many different approaches. The most effective methods of improvement had been through repetition of education and reinforcing changes in practice.

When attempting to improve patient care it is important to have a baseline of the data to be able to show the extent of the problem and the areas that need to be improved. Often improvement work will involve repetition of the change. The benefit to having a AKI ANP is that teaching can be delivered in a formal setting to all staff, alongside bedside teaching to staff when caring for patients to help to contextualise the formal education

A new method for estimating examination repetition rate for risky actions in patient care

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Background

ZGT is a large general hospital with over 3000 employees. The new method focusses on risky actions in patient care hospital-wide.

ZGT wants to offer its patients the most professional care possible. This means employees must be trained and examined in risky actions, for instance infusion technology. Also legislation and regulation demand staff members to be authorized and qualified to perform medical actions. The frequency by which examination must be repeated is generally not imposed externally. The method used to identify the repetition rate in ZGT was not satisfactory because there was no distinction between functions and patient groups. Result was a repetition rate that was too high for some caretakers to keep skilled and too low for others.

Methods

The problem was discussed by multidisciplinary teams. Outcomes of discussions were used to design a better method to determine examination repetition rates. Next step was a pilot with one department (internal medicine) to test if the method invented had useful outcome.

Thereafter, in workshops with each department, for each risky action, the risk (implications for the patient (or employees/bystanders) when the action is not performed correct), frequency of performing the action by the different functions (less practice means skills weaken) and complexity of the action for these functions were identified. For each parameter scores were given. The examination repetition rate was calculated based upon three parameters: Final score = frequency x risk x complexity.

The result defines the category of the risky action and the requirements for examination.

Outcome

Expectation is a better method to determine examination repetition rates will lead to more qualified staff, understandable demands for employees, no over or under testing and better foundation for making examination programs. Responses of management and medical staff showed that professionals in ZGT encounter the outcomes and feel examination frequencies are more reasonable and match with needs in practice. They feel also more conscious of there actions as a result of the attention for the theme.

At this stage, departments are busy with implementation to comply with the new demands. Qualification of employees will be registered in a digital learning management system. The repetition rate, determines when qualification expires and gives the deadline for next examination. Management reports give insight in the state of qualification in different cross sections.

Conclusion

Determining the repetition rate of examination of risky actions to stay qualified by using the three factors frequency,

risk and complexity, is a useful method and gives thorough results that meet expectations of management and medical staff. Examination frequencies that match with needs to stay qualified, lead to better performing medical staff with improved skills to execute risky actions. Expectation is this will lead to better patient care, less incidents, lower costs and better compliance of employees to meet the demands for examination.

Combating Hospital Infections with Link Nurses

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Background

Landspítali University Hospital (LUH) is a 650 bed university hospital in Iceland and a national referral centre. After a period of economic recession, the Department of Infection Control is under resourced. Hospital acquired infection (HAI) is a major safety concern for both patients and healthcare providers, causing increase in health care cost and mortality. The LUH average point prevalence hospital infection rate was 7,5 % in 2015, well above the desired goal. This amounts to almost 1900 hospital infections annually, equalling 5 patients containing an infection each day. Epidemics of community acquired infections and outbreaks of resistant bacteria were frequent, necessitating closing of whole hospital wards with associated cost and disruption of hospital operations. Among causes were both ineffective infection control practices in the patient care and lack of standards in cleaning and housekeeping, as well as lack of compliance to infection control practices.

Methods

In order to reach out to the clinical wards a pilot project involving infection control link nurses was launched on 8 wards in different clinical disciplines throughout the hospital. One staff nurse was appointed as a link nurse (LN) in each of the 8 wards to act as a bridge between the clinical wards and the infection control team. Their task was to increase awareness of infection control and motivate their co-workers to improve their infection control practices in housekeeping, patient care and hand hygiene as well as banning any hand jewellery, thus hopefully reducing HAI's and increasing compliance to hospital infection prevention protocols.

The intervention period was from February 1st 2016 to January 31st 2017. Staff nurses were appointed by their nursing manager as LN in a 10% allotted work time. They then received 36 hours of education and practical training by the department of Infection Control. Defined goals were assigned and ongoing quarterly reporting was taught.

Outcome

Hospital infection rates decreased on all the 8 wards from the average point prevalence of 7,4% to 4,8% respectively. Compliance to hand hygiene guidelines increased from an average of 56% to 88% and compliance to hand jewellery ban increased from 60% to 86%.

Visually the wards were cleaner, tidier and better organized. Care was taken to choose new purchases of furniture and appliances of material that could be easily cleaned and disinfected.

The most surprising result and possibly the greatest impact, was the change in the attitude of the ward staff and heightened overall awareness.

Conclusion

During the project several practical problems were encountered, the most frequent being:

1. Support of the nursing manager. As expected this would prove to be a major factor of impact.
2. Lack of time. Link nurses were not always allotted enough time for the work. This is closely linked to the nursing manager's support of the project.
3. The link nurse's personality and drive. An open, determined personality and someone well respected among colleagues, was more likely to be successful.

Since 2015 there has not been an outbreak of resistant bacteria necessitating closing and isolation of any ward in the LUH. Community acquired viral infections /e.g. influenza) have also been contained.

The LN project was proved to be an effective and inexpensive strategy to change culture and promote better hygiene in the hospital. By preventing as little as one extra day of admission for one patient in each ward each month, the costs of the project were covered.

Anatomy of a scheduling crisis

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Background

Albert Lea-Austin hospital medicine practice requires 13.6 full-time physicians to cover 552 shifts per quarter (two day-time shifts and one night shift at each site).

Fall 2016, the practice faced a scheduling crisis with some physicians leaving practice, cutting back work, taking vacation/family leave, hence creating a shift deficit of 102 in 4th quarter 2016 and 180 for 1st quarter 2017. Also, multiple available resources like supplemental physicians, locums working through Mayo's internal moonlighting service, and external services were not used optimally.

Unfilled shifts have a huge potential for negatively affecting financial performance, morale of existing physician and non-physicians and forcing patient diversion to Rochester destination practice.

Methods

Strategy and Tactics:

Key strategies included accurate current state assessment, evaluating causes for sub-optimal use of existing resources, and options to improve shift deficit.

Tactics included: hospitalist engagement, aligning incentives for shifts above required number, engaging Enhanced Med and remove barriers for locums to pick shifts, and flexible staffing to accommodate the scheduling needs of supplemental and locum physicians.

Outcome

Results

We were successfully able to reduce the number of unfilled shifts from 210 to 17 for Q-4, 2016 and from 239 to 3 for Q-1, 1st quarter 2017.

Conclusion

Conclusion

Every crisis is an opportunity to address the root causes and come up with a solution that not only fixes the current crisis but potentially avoids the next one. Team work, engagement, shared future vision, and trust are crucial for a successful crisis management plan.

The Performance Measures of Primary Health Care Quality: Experiences of Morocco Primary Health Centers

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Background

Several projects implemented the activities of Quality Assurance by the various structures of the Health Ministry , such as Hospital Audits, Team Approach for the problems resort, the standards elaboration , the hospital accreditation , analysis laboratories certification and institution of cycles quality. All this was concluded by a conference on the quality of health in 2002. The Objectives are : To évaluer the perception of health staff on the quality of care in the PHCE in Morocco; to evaluate the performance management systems in the field of care in Morocco by analyzing the different dimensions and perspectives of the quality of health care..

Methods

The data collection was made through a questionnaire for the staff who exercises in the ESSP. This questionnaire contains three parts adapted according to the model of Donabedian (Structure, processes and results), understanding seven domains. The first part concerns the Structure dedicated to the Quality Planning, the Leadership and the Human Resources Management. The second part concerns the processes dedicated to the Process Management, the Monitoring and the Analysis. The third part handles the Results of the quality and the user's satisfaction. Every domain contains 4 to 9 questions handling an aspect with 46 questions. The questionnaire was sent to the concerned in an individual way either directly, or through emails, assuring the guarantors

Outcome

We note significant differences in the perception of the quality of the care of the health workers general. The steps of ACQ remain a good tool to improve the quality of the care. The satisfaction of the population remains high with a performance of (74 %), the steps of ACQ are effective tools of the organizational change, the impact on the change of professional practices for our case (68 %) have this image, which varies, enters average and low on the CQ. Continuity and integration of the care are assured only in 34 % of the cases.

Conclusion

In spite of the challenges which the Moroccan health system knows, we note that the perception of the performance the staff of care remains relatively high (exceed largely the 60%). The approaches of QCI are a good tool to improve the quality of the care. The current approach regarding measurement of performance of the quality is far from establishing an effective national system of measurement of performance and production of reports for the following reasons: The objectives are not well defined and are not accessible. The existing approaches produce measures which are inconsistent, complex and unstable, imposing to the persons receiving benefits of care the uncertainty and the burden of the contradictory measures. The primary care also faces certain important challenges, among which the epidemiological transition in the chronic diseases, the decentralization of the health system and the erosion of the financing of the health.

Association between nurse education and experience and the risk of mortality and failure to rescue in acute care hospitals : a longitudinal study

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Background

In 2011, the Institute of Medicine suggested that by 2020, 80% of registered nurses in acute care hospitals should be educated at the baccalaureate degree. The aim of this study was to determine whether this threshold is associated with a lower risk of mortality and failure to rescue.

Methods

A dynamic cohort of medical-surgical patients was followed from January 2010 to December 2016 in a large university health centre in Quebec (Canada). Nurse education was measured, using payroll data, as the cumulative number of shifts where at least 80% of RNs held a baccalaureate degree. Mortality and failure to rescue were measured from discharge abstract data. The association between nurse education, mortality, and failure to rescue, were assessed using two Cox regression models (one per outcome). These models adjusted for fixed-in-time patient characteristics (e.g., age, sex, comorbidities, severity of illness on admission) as well as time-varying nursing unit (e.g., unit type and occupancy) and nurse staffing characteristics (e.g., nurse-to-patient ratio, nurse experience levels).

Outcome

A total of 124,832 patients was followed, of which 4,975 died and 2,339 experienced failure to rescue. Descriptive statistics indicated that patient who died or experienced failure to rescue were older, had more comorbidities and higher severity of illness of admission than those who survived. After adjusting for patient, nursing unit, and nurse staffing characteristics, we found that each additional work-shift where 80% or more of the Registered Nurses held a baccalaureate degree was associated with a 3% decrease in the risk of mortality (HR: 0.98; 95%CI: 0.96-0.99), and a 3.4% decrease in the risk of failure to rescue (HR: 0.96; 95%CI:0.95-0.98).

Conclusion

Increasing the number of work-shifts with 80% or more baccalaureate-prepared registered nurses is associated with lower risks of mortality and failure to rescue, thus lending support to the Institute of Medicine's recommendation. Our findings reinforce the pressing need for decision makers to design and implement policies that will attract and retain baccalaureate-prepared nurses in acute care hospitals.

An evaluation study of the application of the "Quiet Room" in the management of patients with emotional problems in Hong Kong

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Background

The study was conducted in the long-stay ward of The Department of General Adult Psychiatry, Castle Peak Hospital, Hong Kong. People who are disturbing by abnormal perception or bothering by emotional instability may feel extra stressful or anxious in a place that is different from their home environment. In many situations, these negative feelings magnified to psychiatric emergency and require imminent staff intervention.

To promote recovery concept in mental health, we agree that locus of control should shift from staff intervention to personal responsibility for self-regulation or self-management. We start setting up "Quiet Room" in wards but we want to know how far the "Quiet Room" can help in the management of patients with emotional problems. We also want to explore patients' perception on the application of "Quiet Room".

Methods

The Faculty of Nursing of Open University Hong Kong was invited to conduct a joint study of the application of "Quiet Room". To assess the pre and post stress and anxiety level with the "Quiet Room" treatment as well as patients' perception on the application of the "Quiet Room".

A mixed method, a quasi-experimental study, and interviews with stakeholders were used in this study. Phase 1 involved a quasi-experimental study with assessment tools, State and Traits Anxiety Inventory (STAI) & Perceived Stress Scale (PSS) to check the outcome variables from the intervention of the "Quiet Room". Phase 2 included interviews with all participants to explore their perception of the "Quiet Room".

Outcome

In the pre-test of quasi-experimental study, the mean score of the anxiety level is 46.0/80 and the stress level is 27.1/56, which suggested that the participants were considered to have moderate levels of anxiety and stress before the intervention was given. In the post-test, the mean anxiety level dropped to 36.2/80 and stress level dropped to 23.3/56. The results indicated that the intervention of the "Quiet Room" reduced the anxiety and stress levels of the participants.

In the interview sessions, the participants also reflected that the "Quiet Room" helps them in the following ways:

- improving health condition, both physical and psychosocial health;
- increasing autonomy.

Conclusion

The study proves that mentally ill people are capable for self-help and self-management if appropriate facilities/guidance provided.

Quality Indicators As A Tool To Improve Patient Care In Blood Sample Collection Area

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Background

Quality indicators are measurable, objective, quantitative measures of key system element's performance. They indicate extent up to which a certain system meets the needs and expectations of customers and quality of key, strategic, and support processes. Customers in blood sample collection area are patients. Their safety and satisfaction are essential for optimal functioning of sample collection area. Major problem faced in a tertiary care institute like ours that caters to a large number of patients coming from all over India is high work load and optimal utilisation of our services in that regard. This study aimed to determine quality indicators for blood sample collection area, their periodic assessment, relevant corrective actions and assessment of effectiveness of those corrective actions. Team included consultants at laboratory services and technologists working in the area. Focus of study was technical staff responsible for sample collection.

Methods

A total of seven quality indicators were defined for blood sample collection area and analysis was done for period of January-June 2017. Indicators included reasons of sample rejection, needle-prick injuries to the collection area staff and turn-around-time (TAT) for patients to get their blood sample collected. Based on analysis of quality indicators for this period, corrective actions were undertaken to improve areas that required attention. Quality indicators were further monitored over next three months, from July-September 2017. Intervention in form of training of relevant staff and redeployment of staff to sample collection area was done and was a continual affair. Staff schedules were changed so that additional staff was deployed to sample collection area in peak hours and additional chair for collections, to make sure that patients did not have to wait for long periods for their turn to collect blood.

Outcome

Laboratory received 57,702 samples during the period January-June 2017 and 34,670 samples during the period July-September 2017. Number of rejected samples for haemolysis were 10(0.017%), clotting were 4(0.006%) during January-June, which reduced to 4(0.011%) for haemolysed samples and 1(0.002%) for clotted samples in July-September. TAT for patient waiting was calculated in three one-hour slots for peak timings and was 12.50 minutes for 8:30-9:30am period, 19 minutes for 9:31-10:30am period and 18 minutes for 10:31-11:30am period which reduced to 9 minutes(29.66%), 11 minutes(42.04%) and 5 minutes(72.34%) respectively after intervention. There were no rejections for labelling errors, wrong requisitions and samples with no requisitions during the entire period from January-September 2017. There were no incidences of needle stick injury either in this period.

Conclusion

Quality indicators help us evaluate facilities and bring forth issues requiring attention to make patient care better and

safer. It also helps assess effectiveness of interventions used. Defining quality indicators for processes and their periodic assessment is essential for continuous optimal functioning of facilities and customer satisfaction.

To determine the Positive and Negative Predictive Value of AMT administered by an Active Elder-Care Agency in Singapore

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Background

Aged Psychiatry Community Assessment & Treatment Service (APCATS) is a community-oriented psychogeriatric outreach service in the Institute of Mental Health (Singapore), which aims to meet the psychosocial needs of the elderly in the community. One of its role is to train elder-care agencies (ECA) to screen elderly in the community for depression using EBAS-Dep (Even Briefer Assessment Scale for Depression) and dementia using AMT (Abbreviated Mental Test), and provide right-siting of care for clients who are screened positive for either of the tests.

In the central region of Singapore, around 555 elderly with no psychiatric history were screened for dementia every year using AMT. However, till date, there is no audit or study on the negative and positive predictive value of AMT performed by ECAs in Singapore to determine the effectiveness of the tool to identify elderly with dementia.

Methods

This was an audit on the effectiveness of current practices (i.e. using AMT to screen elderly for dementia in an ECA). No change to practice was implemented.

In an active ECA, each client, who was screened for dementia using AMT within a period of 1 month, received a post-screening assessment by the APCATS team to determine if they have dementia. The post-screening assessment includes using SMMSE (Standardized Mini Mental State Examination) and taking history from the clients according to the DSM 5 criteria of Major Neurocognitive Disorder. The findings of each post-screening assessment would be presented to a psychiatrist during APCATS multidisciplinary meeting who will determine if the client has dementia. The results of the AMT and post-screening assessment were tabulated in a 2x2 table to calculate the negative (NPV) and positive predictive value (PPV).

Outcome

A sample size of 14 and 46 clients who were screened negative and positive by ECA partners respectively were selected. The PPV of AMT is 46%, and NPV is 100%.

The audit revealed high false positive rates. Currently, positively screened clients are referred to the specialist outpatient clinic (SOC). Around 149 clients are screened positive each year. Hence many false positive cases can be referred to the SOC unnecessarily, reducing the accessibility of care to other more needy patients.

However, the audit also revealed low false negative rates. Hence, it is very unlikely that persons with Dementia will be missed with the current practice of screening elderly for dementia in ECA.

Conclusion

Dementia is a significant and growing public health issue which greatly affects Singapore's healthcare cost. Early diagnosis and intervention can reduce the disease burden of Dementia. However, the challenge is to utilise our limited resources to pick up persons with Dementia cost-effectively – the results in this project suggested that we are not able to do that with AMT alone.

Ensuring Quality Immediate Discharge Letters from Mental Health Unit at Forth Valley Royal Hospital

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Background

Immediate Discharge Letters (IDLs) from the Mental Health Unit at Forth Valley Royal Hospital are vital in ensuring safe patient transfer to primary care. This project developed a standardised list of information that should be included in all IDLs, and aimed to assess its use in practice.

Methods

Three audit cycles analysed IDLs over two week periods for their inclusion of the standardised list. The data was assessed qualitatively.

Outcome

Baseline measurement showed 49% of discharges had a brief reason for admission, 15% included a description of the patient's progress during inpatient admission, 36% had medication alterations included and 23% included follow-up arrangements. Following a series of interventions, analysis of subsequent IDLs demonstrated that 76.2% of discharges had a brief reason for admission, 76% included a description of the patient's progress during inpatient admission, 76% had medication alterations included and 71.4% included follow-up arrangements.

Conclusion

The standardised list developed will ensure quality communication and safe patient transfer to primary care; the application of this list was effective and cost neutral.

Welearn: patients, students and care professionals learn together in equity!

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Background

Next to training professionals, training of patients is essential to enhance patient-centeredness of care. To simultaneously train patients and (future) professionals, an educational program of five educational sessions was constructed, wherein patients, students and professionals learn together by exchanging experiences, knowledge and skills. The educational program (called “Welearn”) was co-created, co-produced and co-evaluated with target groups and education professionals in a participatory approach.

Methods

Welearn was tested in four pilots using the plan-do-study-act methodology with mixed methods evaluation, i.e., evaluation surveys, observational research and focus groups. Two pilots focused on testing the program for chronically diseased patients. Expert-by-experience patients with rheumatoid arthritis (n=6), medical students (n=6) and rheumatology professionals (n=3) participated in the first pilot, wherein the program was tested in a safe and controlled setting. A second pilot was organized wherein the complete program was offered to patients with rheumatoid arthritis who are treated at outpatient clinic (n=7), medical students (n=4), nursing students (n=2) and rheumatology professionals (n=4). In addition, a pilot aimed at health literacy was performed wherein medical students (n=6) learned with people with low literacy (n=10). During the last pilot, medical and biomedical science students (n=29) learned together with patients or parents in the field of congenital anomalies (n=10).

Outcome

The open and safe atmosphere and equity contributed to the exchange of experiences and knowledge. All participants benefited from the program, for example in the sense of personal and/or professional development, and recommend participation. Students learned about the patients' perspective, communicating with patients and shared decision making. Interprofessional education enabled medical and nursing students to interact. Patients or people with low literacy gained knowledge regarding health and treatment, and saw more opportunities and responsibility in interacting with care providers. The program enabled patients to adjust their care planning with participating professionals. Patient-to-patient support also helped patients to gain support. Next to their task in guarding quality of information, care professionals learned from the interaction between students and patients, and from the stories of patients during the meetings.

Conclusion

Previous studies have shown the effects of involving students in providing patient education on both patients as well as students. We provide an innovative approach in combining patient education and medical education. The program had positive effects on patients, students and professionals; participation was highly recommended. In future studies, we aim to further develop the program for other patient categories, e.g., people who were treated for an oncologic condition, and further implement the program.

Early and active mobilization of critically ill patients in Intensive Care Unit

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Background

Intensive care unit (ICU) therapy saves lives but many patients experience a substantial decrease in physical functional level after an ICU admission. Mobilization of ICU patients mainly consists of passively hoisting the patient from bed to a chair. However, passive mobilisation does not preserve muscle mass and level of physical functioning. Furthermore, staff may be unsure whether it is safe to mobilise ICU patients due to the severity of their conditions.

Methods

Baseline: Registration of mobilisation practice (methods of mobilisation, and numbers of daily mobilisations for each patient February-May 2015)

Intervention: Development of mobilisation algorithm and guideline. Daily mobilisation plan for each patient. Purchase of active training tools like hand weights, standing bars etc.. Increased physiotherapist presence from 2 hour daily to 3.5 hours daily

Strategy for change: Implementation via daily morning meetings and one-to-one tuitions

Follow-up: In February – May 2016 first follow-up registration (like baseline) and in February – May 2017 second registration

Outcome

A total of 116 patients were included in the baseline registration, 133 in the first follow-up and 155 in the second follow-up with a total of 629, 614 and 716 registrations, respectively.

The groups were comparable in age (median 69), and gender (43% women).

The percentages of patients who had been actively mobilized by sitting on the edge of the bed, standing and walking on the spot had increased from 26%, 30% and 24% at baseline to 44%, 54% and 41%, respectively at first follow-up. The increase was sustained at second follow-up.

Conclusion

It is possible to change mindsets and through that lasting changes in practice by: 1) Education that helps staff understand why the change of practice is important, and 2) Regularly provide data of improvements as feed-back

Post colonoscopy colorectal cancer (PCCRC) rate at Tameside and Glossop Integrated Care NHS FT

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Background

PCCRC defined as colorectal cancer (CRC) diagnosed within 3 years from a colonoscopy, has been proposed as key quality indicator for a colonoscopy service. In 2016, BSG and JAG recommend in the 'UK KPI & QA standards for colonoscopy' that all endoscopy units should develop a system to capture the data and review each case of PCCRC as a 'clinical incident, subject to root cause analysis'. Nationally, PCCRC rate (PCCRCR) is 6.8% and an aspirational <5% for all endoscopy units is recommended. Following the above guidance, we have audited our endoscopy unit PCCRCR over 1 year.

Methods

We conducted a retrospective audit between 01/04/2015 – 31/03/2016. All newly diagnosed CRC within the 12 months were identified from our local colorectal MDT database. Using UNISOFT endoscopy reporting tool, we screened each case of CRC to identify patients who had at least one colonoscopy in our department within the 3 years prior to the new CRC diagnosis. All identified cases were subject to root cause analysis, completed based on information from medical notes and Lorenzo informatic database.

Outcome

143 new CRC cases were discussed in our colorectal MDT in the audited interval. 9 of these patients had at least 1 colonoscopy (referred as 'index colonoscopy') within the previous 3 years. After root cause analysis, 2 cases were not eligible to be counted as PCCRC. The rest of 7 cases had at least one colonoscopy within the previous 3 years, for: change in bowel habit, previous polyps, anaemia and surveillance colonoscopy post CRC. All 7 PCCRC were located in the right colon; 6 PCCRC were adenocarcinomas and had curative right hemicolectomies. In one case histology is unknown, as initial biopsies were negative and patient declined further interventions. 6 of the index colonoscopies were performed by consultant endoscopists, 1 by a middle grade. Bowel prep at index colonoscopies was: poor in 1 patient, satisfactory in 5 patients, and good in 1 patient.

Conclusion

Our PCCRCR for the 12 months audited is 4.89%, better than the national average and well within the aspirational targets. There is still room for improvement and an action plan aiming for a local PCCRCR below 4% has already been formulated.

Assessing motivators and barriers to quality improvement activity in postgraduate medical and dental training programmes.

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Background

In the United Kingdom, postgraduate medical and dental education (PGMDE) is overseen by regional deaneries. These organisations are responsible for ensuring that training programs achieve professional capabilities as outlined by the Royal Colleges to create the future NHS consultant workforce. The Academy of Royal Medical Colleges report “Quality Improvement- training for better outcomes” highlighted the importance of including improvement methodology in training programmes and subsequently, colleges adapted curricula to reflect this. The Wales Deanery is responsible for 2513 such doctors and dentists in 50 training programs and established the Quality Improvement Skills Training (QIST) unit to address this need and equip trainees with the appropriate skills to undertake quality improvement (QI) activities. We aimed to conduct an assessment of trainee views on their involvement in QI activities in the context of the additional pressures of achieving general professional capabilities.

Methods

An electronic survey comprised of ten questions was circulated to doctors and dentists in training using the Wales Deanery mailing list. The survey aimed to collect semi-qualitative data; questions were multiple choice and all questions included the option for free text responses. A focus group of trainees was used to identify a list of common motivators and barriers to QI activities and this formed the answer choices for those particular questions.

The survey remained open for eight weeks after which responses were collated into an Excel spreadsheet. Simple percentages were calculated with no further statistical analysis. Free text answers were analysed for additional themes. No comparisons were drawn between the training programmes as there was likely to be bias depending on the progress of each Royal College developing a QI curricula.

Outcome

Training - 31% of respondents had undertaken some form of QI methodology training.

QI Activity - 53% of trainees had participated in clinical audit activity only; 12% had assisted with a QI project with a further 16% regarding themselves as having led a QI project.

Motivators for involvement with QI activity - Improving patient care (69%) and patient experience (47%) were the biggest motivators. Motivators unique to doctors and dentists enrolled in training programmes included curriculum requirement (38%), recruitment application scoring systems (44%) and the opportunity for publications and presentations (47%).

Barriers for involvement with QI activity - 70% of participants perceived that their clinical workload was too heavy to engage with QI with 52% frustrated at having to carry out QI activities in their own time. 33% felt that they had not had enough QI methodology training. The rotational nature of training posts was a barrier for 23% of respondents.

Conclusion

Doctors and dentists in training are predominantly motivated by the desire to improve patient care and experience as well as by frustrations with the system but training programmes create additional motivators through curricula requirements. There is a perception that the burden on clinical workload is a barrier to participation in QI activities and many trainees are frustrated with having to carry out such work in their own time.

Clinical audit is still the main QI methodology utilised by doctors and dentists in training to improve healthcare and there is a training need to introduce other QI concepts.

Doctors and dentists in training programmes have the additional motivators of curricula requirements, job application scoring and opportunities for publications and presentations; training bodies and healthcare organisations could utilise these factors to promote engagement of this section of the workforce in the implementation of organisational QI priorities.

Does a Nurse Practitioner Candidate improve the self-reported quality of life for residents in residential aged care?

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Background

Primary care provided by an onsite Nurse Practitioner Candidate (NPC) was implemented aiming to improving timely assessment and care provision for residents experiencing acute illness. Knowing that old frail people are adversely affected by transfer to the emergency department (ED) and potential resultant admission to hospital, it was hoped earlier intervention by the NPC would reduce the need for transfer to the ED and improve quality of life for residents. Research was undertaken at Sundale Ltd., a residential aged care facility (RACF) of approximately 390 beds across five sites, as part of a larger collaborative research study involving the local hospital and health service, the primary health network and a research team from University of the Sunshine Coast (USC).

Methods

Intervention: provided by a full-time NPC studying a Master of Nursing (NP) program. An onsite NPC can assess and treat the resident more thoroughly than the nursing or care staff due to their advanced training and education, and their extended scope of practice. They do not rely on the GP visiting the RACF for treatment to commence, preventing hospitalisation. The NPC empowers residents through increased choice of care provision, complements the role of the GP and multidisciplinary team and promotes development of advanced nursing practice through mentoring. Design: quasi-experimental utilising an intervention and control group and data collection over four time points. Methods: AQoL and EQ-5D instruments across five sites at four times periods – baseline, 3 months, 6 months and 12 months after the intervention commenced. Aged Care Funding Instrument scores for each resident at each time period were collected to determine acuity and resultant level of care required for residents.

Outcome

In total, 278 residents were deemed able to participate in the study, 228 residents participated in the study, 50 refused resulting in a participation rate of 82%. At baseline and three months, the quality of life scores for the intervention group were lower than for the control group. However, at six and twelve months this trend reversed showing quality of life for the intervention group was higher. Neither result was statistically significant. There were no statistically significant differences between results for AQoL-4D and EQ-5D instruments.

Conclusion

This sub-study demonstrated the difficulties in measuring change resulting from a health intervention that impacts on the outcomes at an individual level. While measuring overall outcomes in relation to number of transfers to hospital yielded results (reported elsewhere), determining if the NPC intervention impacted on quality of life for residents proved challenging. Problems were identified in: demonstrating the effect of change in health using standardised Quality of Life instruments; requiring devices to enable the hearing impaired to answer the questions; and standard

questions not relevant to residents such as 'doing household tasks'. Further research needs to ensure the tool is theoretically based and tested for validity and reliability in the RACF setting.

Assessment of the knowledge regarding Infection Prevention among para-medical staff in public facilities offering Female Sterilization Services in India

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Background

Sterilization is the most popular method of contraception in India. The 2005-06 National Family Health Survey found that female sterilization with a prevalence of 37% accounts for 66 % of all contraceptive use. These are predominantly conducted in the public sector, with Public static and mobile facilities providing 73.4 % and 12.1% respectively and only about 7.5% accessing these services from the private sector. In the public sector, static facilities have become a major source of India's family planning programmes for both males as well as females.

Unfortunately, the government of India has paid little attention to the quality of sterilization services, and has tended instead to emphasize achieving targeted numbers of cases.

Any intervention undertaken has been directed at training the service providers, with little or no attention to the para-medical staff that is responsible for preparation of instruments and Infection Prevention at these facilities

Methods

A cross-sectional evaluation of Para-medical staff regarding their knowledge, attitudes and practices about Infection Prevention and instrument processing was carried out to identify gaps in the knowledge, attitudes and practice of the Para-medical staff at the selected public facilities in Bihar, specifically regarding Infection Prevention and processing of instruments. An anonymous questionnaire is to be administered to Para-medical staff members in each of the selected facilities. The staff members selected for the study would be the ones identified as being responsible for instrument processing and infection prevention at selected PHCs and CHCs by the Medical Officer in charge of the facility. The facilities selected for the study are a mix of the levels at which female sterilization is offered on a Fixed Day Services mode, viz. PHCs and CHCs. District Hospitals have been excluded as they usually offer sterilization services on a daily basis.

Outcome

The information obtained from this study will enable us to get a better understanding of the present knowledge, attitudes of the Para-medical staff responsible for instrument processing and Infection Prevention, which is an integral part of Safety -one of the pillars of Quality Health Care as defined by WHO. This will also help us get an understanding of their appetite and motivating factors for learning, which can serve as a guide for any intervention that may be planned. This study will help us to identify avenues to address the gaps so revealed along with the most suitable candidates for receiving this training and the motivating actors that will encourage more and active participation-rustling in all round improvement I the Quality of Family Planning services.

Conclusion

Although the Family Welfare Programme has begun to give higher priority to spacing methods than to permanent methods, sterilization is expected to remain the most popular method for the foreseeable future. Any improvement in the Quality of Care offered in sterilization services will result in greater acceptance and uptake of Family Planning services and increased confidence in these services by the patients. It is to be hoped that this will result in greater uptake of all health services offered by the facility, leading to overall improvement in women's health.

CLEAR Dementia Care (c) Training Improves Quality of Life for People with Dementia

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Background

The Dementia Home Support Team includes clinical psychologist, social workers, nurses, occupational therapist and support workers. The team works with people with dementia and their carers in the Northern Health and Social Care Trust (NHSCT), Northern Ireland.

People with dementia can present with behaviours that carers find challenging and difficult to understand. These behaviours are caused by the distress the person experiences as they try to cope with the daily challenges of living with dementia. Failure to understand behaviour and address identified unmet need can result in unnecessary placement breakdown, unnecessary hospital admission and increased distress for the person with dementia.

(1) Clinical experience and discussions with care home staff highlighted the need for CLEAR Dementia Care © training for all staff working in care homes. (2) The successful outcomes lead to expressions of interest from other trusts across the UK to access training.

Methods

CLEAR Dementia Care © (Duffy, 2016) is a model of behavioural assessment and interventions which was being implemented in care homes across the NHSCT.

- (1) A CLEAR Dementia Care © Training Programme was developed for care home staff to help staff understand dementia from the perspective of the person with dementia. The content of the programme included; types of dementia, symptoms and understanding behaviour. The outcomes were extremely positive which prompted the development of a train the trainer programme.
- (2) A 2 day CLEAR Dementia Care © Train the Trainer Programme for Health and Social Care Trusts was developed. This is supported by a comprehensive pack of materials.

Both programmes include a range of training methods including powerpoint, video, case studies and exercises based on experiential learning.

Outcome

(1) CLEAR Dementia Care © Training for Care Home staff

Data is presented for 59 sessions delivered to 623 attendees. The evaluation assessed knowledge before and after training. There were significant improvements reported in knowledge across all areas in the evaluation. For example;

- 98% of participants improved knowledge of dementia symptoms.
- 99% of participants improved knowledge of Behavioural and Psychological Symptoms of Dementia (BPSD).
- 99% of participants reported improved knowledge of causes of BPSD.

(2) CLEAR Dementia Care © Train the Trainer Programme

Data is presented for 194 staff across 4 Health and Social Care Trusts (including psychology, psychiatry, social work, nursing, occupational therapy)

- 96% reported the training would benefit their practice.
- 93% reported the training improved their knowledge of BPSD.
- 93% reported that following training they felt more able to engage with care staff and help them to support people with dementia.

Conclusion

Training has facilitated a stepped care approach which enables early intervention to support people with dementia who present with behaviours associated with distress. Efficiency savings are estimated at £100000 per year in the community for the NHSCT. Early analysis indicates a reduction in psychiatric hospital admissions from care homes where staff have attended training; this will result in significantly greater savings.

CLEAR Dementia Care © aims to work in collaboration with care staff and this approach increases engagement. The model was developed to be accessible to care staff and fit within a busy and complex work environment.

CLEAR Dementia Care © training helps staff understand behaviour from the perspective of the whole person and find ways to reduce distress. The outcome is better care and enhanced quality of life for the person with dementia.

CLEAR Dementia Care © Train the Trainer programme enables implementation across other health trusts.

Quality Improvement in the Assessment of Foot Disease in Diabetic Inpatients at Maidstone Hospital

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Background

We carried out a quality improvement project (QIP) to raise diabetic foot assessment rates at Maidstone Hospital, a district general hospital in the United Kingdom. We focused on all in-patients with diabetes. The QIP team was made up of four 4th Year medical students from King's College London, supervised by a Consultant Diabetologist from Maidstone Hospital. Diabetic foot disease is a well-recognised sequela of diabetes with significant associated morbidity. National Institute of Health and Clinical Excellence guidelines and national auditable standards require every diabetic in-patient to undergo a diabetic foot assessment (DFA) within 24 hours of admission. However, this target was not being met for diabetic in-patients at Maidstone Hospital.

Methods

We aimed to increase the DFA rate from 13.3% to 80% over a 5-month period by March 2017. Our strategy was to both reinforce importance of adequate foot care in the diabetic in-patient population and to raise staff awareness of current guidelines around the issue. To do this we identified key stakeholders, such as diabetic nurses and ward managers, that would help us implement our proposals. We implemented 2 interventions, structured as PDSA cycles, on 4 target wards. Firstly, we established 'Foot Guardians' to advocate for proper foot assessment. Their role was to monitor DFA rates and prompt their colleagues to perform DFAs appropriately. Secondly, we provided teaching on the importance of foot assessment via a grand round presentation, posters on our target wards, and an instructional video.

Outcome

Our project raised the overall rate of foot assessment (at any point during their admission) of diabetic in-patients from 23.4% to 50%. We were also able to increase the mean percentage of patients with completed DFA documentation after 24 hours from 41.62% to 85.86%. However, we did not affect the assessment rates within 24 hours of admission.

Conclusion

Our experience and the challenges we faced show that it is difficult to effect sustainable change and improvement without strong and continued engagement with healthcare staff. While significantly raising the overall DFA rate, we were unable to significantly improve the DFA rate within the first 24 hours of admission. We attribute this to ineffective implementation of our changes on AMU, where most medical patients will spend at least some of their first day of admission. Nevertheless, we have demonstrated that projects with relatively limited resources and support can make measurable improvements to clinical practice.

Critical analysis of the follow-up of a Safety Management System in 35 Public Health Services in Brazil

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Background

The SPDM Affiliates, a non-profit social organization, is currently responsible for 75 public health services with a very large diversity and complexity of institutions. Patient safety is a strategic target for SPDM. At the end of 2013 we have defined a Safety Management System (SMS), based on the aviation safety framework, as a model to coaching and monitor organizations. After almost five years of follow-up we did a critical analysis about how we consolidate organizational learning about surveillance of Operational Safety Practices (OSP). The main question for analysis was: How to evaluate the effectiveness of a SMS and prioritize improvement projects?

Methods

In 2013 we defined four drivers to follow the strategy: 1. Safety Policy 2. Risk Management: identification, analysis and treatment 3. Management Vigilance (audit) 4. Promotion of Safety Culture. We performed the analysis of indicators of compliance with safety practices, adverse event reports, and institutional safety plan reports. Meetings were held with the units, separated by the same type of service. We standardize the audits of safety practices and define the specific events of each practice to be notified. We establish a level of reliability for each type of audit.

Outcome

We have chosen safety practices in accordance with current legislation in Brazil, the literature and our greatest weaknesses according to the audit and notifications data. With the results we consolidated an OPS Surveillance Framework of the SMS:

- - Pressure Injury Risk 45.512 audits - 95% compliance
- - Risk of Fall 160.031 audits - 94% compliance
- - Surgical Check List: 44.945 audits - 89% compliance
- - Secure Identification: 91.906 audits - 88% compliance
- - Antibiotic-prophylactic: 27.940 audits - 81% compliance
- - Hand Hygiene: 23.898 audits - 59% compliance

With this framework the institution were able to visualize in a didactic way where their greatest challenges lie, choose graphically oriented where to allocate your improvement projects and be able to learned from other equivalent service institutions. The definition of the most secure audit model helped to assess the level of reliability of the safety oversight.

Conclusion

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Analyzing each safety practice in isolation does not lead to systemic safety. We need to work on the operational Safety Management System (SMS) as a whole.

The visualization of a didactic framework support a better decision making about resource allocation in safety practices. Shared Learning meetings about operational safety practices are an important method of accelerating the understanding of an health modelo of SMS and organizational safety culture improvement.

A data-driven patient safety management model in a multi-clinic primary healthcare setting

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Background

Terveystalo is one of the largest private healthcare providers in Finland. It consists of 180 outpatient clinics all around Finland. Terveystalo's staff consists of 9000 healthcare professionals. In 2017, there were 3,3 million visits to the physician.

Terveystalo has a strategic aim to improve and measure quality using a framework called quality triangle. It defines quality as three-dimensional, including medical quality, operational excellence and customer satisfaction.

The most often used Patient safety indicators are aimed to hospital or specialized healthcare settings. They include hospital complications and adverse events following surgeries and childbirth. These indicators do not serve well in an organization that focuses mostly on outpatient care.

In this work, we identified the key indicators describing patient safety, created a reporting system and implemented a model aimed at improving patient safety continuously in every Terveystalo unit.

Methods

Together with our network, we identified the key indicators best suited to our operating environment. Besides audit findings, they include:

- Patient safety incidents
 - Adverse events
 - Near misses
 - Including data privacy incidents
- Cost of patient safety incidents
 - Gathers data of material losses, lost sales and lost working hours due to incidents
- Official complaints
- Post-surgery Infections

Then we built the reporting system using our business intelligence reporting system, Qlikview. The data is gathered from various sources. We developed a model for our units how to use these indicators with our Patient safety network, and then we implemented the model to our units.

Outcome

We are now able to continuously monitor patient safety in a national level. The reporting of near misses provides valuable information to support our improvement efforts, helping us to anticipate and remove patient safety risks. We have been able to analyze and remove various root causes to several patient safety and data privacy issues in our large network. With an open and trust-based patient safety culture, we increase the likelihood of everyone to report any observed nonconformities. All personnel groups have better understanding of their role in enhancing patient safety, now that the results are monitored continuously. All efforts to improve the situation in the units can be measured.

We have published our patient safety indicators in our quality yearbook as part of our comprehensive quality work for 2 years in a row.

Conclusion

It has been important to find and implement indicators of patient safety that are relevant to our organization. Equally important has been the management model with clear responsibilities and target levels. The project has been very helpful in implementing and enhancing an open patient safety culture.

The message to others is that every organization should use relevant patient safety indicators. In choosing indicators, the organization should consider closely what kind of indicators will be most useful to their field of work. Indicators alone do not improve patient safety, but gives management the possibility to lead patient safety with insight.

The results should be transparent to the organization and its customers.

Decreasing length of stay through Colorectal Surgery Accelerated Programme

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Background

Singapore General Hospital is the largest and oldest public hospital in Singapore. With 1800 beds, > 90,000 surgeries are performed annually. The Department of Colorectal Surgery performs 300 to 400 elective and emergency major bowel resections for colorectal cancer every year.

The typical length of stay(LOS) following elective major colorectal surgery ranges from 5 to 7 days. The need for expedient surgery in the face of increasing patient load and an ageing population with complex medical conditions, result in an ever-growing demand for bed and staffing resources. Strategies to streamline management during hospitalisation and improve recovery processes can decrease LOS, thereby promoting patient well-being, decreasing costs and ameliorating bed-occupancy situation.

A focused workgroup consisting of colorectal surgeons, nurses, anaesthetists, physiotherapists and dieticians was formed. We aimed to reduce LOS by 20% within 12 months, without affecting safety and readmission rates.

Methods

Cause-and-effect analysis was performed using fishbone diagrams. Following Pareto prioritisation, 4 main concepts to tackle root causes were identified.

1. Design standardised protocol for patient management
2. Reduce post-op nausea and vomiting
3. Reduce frequency and impact of post-op complications
4. Tackle caregiver unavailability

Solutions were formulated into a multi-modal colorectal surgery accelerated programme(CSAP).

1. Training and empowerment of clinician nurses
2. Prehabilitation with emphasis on exercise & nutritional supplementation by dietitians & physiotherapist
3. Additional pre-anaesthetic clinic slots by anaesthetists, with emphasis on patient education
4. Emphasis on anti-emetic agents, multi-modal analgesia, early mobilisation & feeding
5. Pre&post-operative stoma counselling to avoid delays in discharge due to caregiver unavailability.

CSAP was started 6 months after 1st conceptualisation. Feedback from 3-monthly audit cycles was incorporated in PDSA cycles.

Outcome

We compared the outcomes of 40 pre-CSAP patients and 60 post-CSAP patients. Demographics in both groups, including age, gender, body mass index, comorbidities, type and duration of surgery done, were comparable. After 8 months, LOS had significantly reduced by 1.3 days (20.2% reduction), from a mean of 6.45 days to 5.15 days ($p<0.05$). Both the duration of abdominal drains (mean 5.13 vs 3.08 days, $p<0.05$) and urinary catheterisation (mean 3.40 vs 3.00 days, $p<0.05$) had reduced. There were no differences in 30-day morbidity or readmission rates.

CSAP is changing surgeons' and patients' mindsets that an evidence-based protocol can safely reduce LOS following major surgery. The enrolment rate of CSAP has increased with time. Moving forward, we are implementing same-day admissions for patients who would otherwise be routinely admitted a night before for bowel preparation and logistical purposes.

Conclusion

CSAP reduced length of stay by 20% within 8 months, without affecting safety or readmission rates. Obstacles we faced included logistical challenges, the need for dedicated and motivated staff to engage patients, and increasing enrollment rates among eligible patients. These can be overcome by continuing to engage all staff and patients involved.

Get It Together: Implementation of a 'Glaucoma box' in the Emergency Department

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Background

This project took place at the Emergency Department at Monklands Hospital, a busy district general hospital serving approximately 260,000 patients in north Lanarkshire, Scotland. It is one of three district general hospitals in NHS Lanarkshire; of note is the centralisation of Ophthalmology services at Hairmyres Hospital which is located about 15 miles away.

The aim of this project is to improve the quality of care delivered to patients with suspected acute angle closure glaucoma, focusing in particular on diagnosis, management and referral process.

Methods

The concept of this project was first discussed with all the consultants in the Emergency department. It was agreed that there is a lack of easy accessibility to diagnostic and therapeutic resources for cases of suspected acute angle closure glaucoma, beyond basic ophthalmology equipment.

In consultation with a consultant ophthalmologist, we identified a list of resources required. These were acquired with the help of the department's senior pharmacist and a Medical Physics technologist. To improve efficacy in diagnosis and referral of acute eye problems, we also worked together with the same ophthalmologist to develop a quick reference guide on acute angle closure glaucoma. From this, we developed a 'Glaucoma Box' to be stored in the 'Eye room' in the Emergency Department.

Outcome

The 'Glaucoma box' is a prominently located, easily accessible and consistent one-stop shop to help emergency doctors manage patients with suspected acute angle closure glaucoma. The main intended benefit is to reduce delay in initiating treatment (by reducing time wasted in locating them). It also provides knowledge prompts to aid with assessment and onward referral to specialist ophthalmology services. These features are especially important relevant to our hospital as we do not have on-site Ophthalmology services and therefore must have the capacity to initially manage this ocular emergency well.

Prior to the addition of the Glaucoma box, a survey of the Emergency Department revealed availability of only intravenous Diamox. Following the addition of the Glaucoma box, there is complete availability of initial treatment regimen required in suspected acute angle closure glaucoma.

Conclusion

The 'Glaucoma box' is a simple but useful method of improving quality of care for patients presenting with suspected acute angle closure glaucoma, and can easily be implemented and replicated in other emergency departments.

Mediating effect of insomnia symptoms on relationship between depressive symptom and cognitive impairments : Nationwide survey

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Background

Sleep and depression are strongly associated with cognitive impairment. However, the question of the role of sleep on the adverse effect of depression on cognitive dysfunction in older adults remains unanswered. We aimed to explore the mediating effect of self-reported sleep disturbances on the relationship between depression and cognitive impairment in older adults according to sex differences.

Methods

This study derived data from the 2009 Taiwan National Health Interview Survey in Taiwan and included 2,175 community-dwelling adults aged 65 years and older (men = 991, women = 1184). Self-reported sleep disturbances, such as difficulty in initiating sleep, difficulty in maintaining sleep and early morning awakening, short sleep duration, and difficulty in breathing during sleep, were measured using survey questions. The Center for Epidemiologic Studies Depression Scale was used to assess depression. The Mini-Mental State Examination was used to evaluate cognitive impairment.

Outcome

A higher proportion of female older persons had cognitive impairment and depression than male older persons (cognition: 24.4% vs. 11.5% and depression: 17.0% vs. 10.8%). In male older adults, difficulty in initiating sleep was a complete mediator of the adverse effect of depression on cognitive impairment (Sobel test: $P = .03$). In female older adults, we did not find evidence of the mediating effect of self-reported sleep disturbance on the association between depression and cognitive impairment.

Conclusion

Difficulty in initiating sleep may be an important treatable mediator of the adverse effect of depression on cognitive impairment in male older adults.

A Patient-Centered Approach in Determining the Information Needs of Cancer Patients

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Background

A diagnosis of cancer is a very traumatic event, which is compounded by treatment and its side effects. Given the complex nature of the disease and treatment modalities, cancer patients need information and emotional support to help them with decision making and coping skills. Providing information and support is an important aspect of the healthcare professional's role and has been found to help patients in their coping process and improve their health outcomes.

Studies have indicated that patients undergoing cancer treatment have considerable information and supportive care needs and that these needs can vary considerably across individuals. In delivering patient-centered care, it is imperative to determine the particular information and supportive care needs of patients in order to address these efficiently and effectively.

Methods

This is an in-depth analysis of the information needs of cancer patients derived from respondents of a previous quantitative study in order to reinforce and to get a deeper significance of patients' needs and concerns. The intended outcome of this study is to provide baseline knowledge for improving patient-centered strategies to better meet the information needs of patients during cancer treatment.

A total of 411 patients participated in the survey. Respondents were patients undergoing cancer treatment at the largest ambulatory cancer centre in Singapore. Written informed consent was taken from all respondents.

Three open-ended questions from a quantitative study based on Content Analysis guided the researchers to explore in depth the information needs of patients. Data were initially categorized according to responses to questions. Data from each question were then examined systematically to identify particular categories of meanings.

Outcome

More women than men participated in this study. The majority (88%) of the respondents ranged from 41 to 60 years of age. They were mainly married, fairly educated and newly diagnosed with cancer. The majority of participants were Chinese. Breast, colorectal and lung cancers were the most common.

Three themes were identified: Three specific areas of concerns were identified: 1) psychosocial and supportive care needs, 2) information needs and 3) information delivery by professionals.

Conclusion

The information needs expressed were consistent with issues of cancer patients undergoing treatment. The results demonstrates the challenges of providing patient-centered care and indicate that despite best efforts by our healthcare professionals in providing information and supportive care to patients, some of these services may not be able to meet the needs of these patients.

The knowledge gained from this study provides several implications for healthcare professionals in general to assist them in the provision of patient-centered care. Recognising and addressing these information and supportive care needs will help to improve patients' coping abilities and decision-making skills; this may inadvertently exert a positive influence on their health outcomes.

Utilizing FOCUS-PDCA to improve oxygen valve body anomalies

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Background

Oxygen is a basic need for all patients in the hospital to survive, and will be life-threatening if the supply is interrupted. In September 2016, there was no central oxygen supply in the examination of patients undergoing cardiac ultrasound in our hospital. The severity assessment code (SAC) was Level 4 due to inadvertent shutdown of the oxygen valve without prior notice from the same floor renovation project.

Methods

we set up a team to improve the team a total of 5 people, the use of FOCUS-PDCA approach to collect the relevant processes and events, identify the key steps in the problem, by analyzing the status of the drill and the why tree to establish the root causes

Outcome

intervene in the hospital gas valve box and monitor specifications inventory records; production of oxygen valve box supply scope and operation instructions; emergency stop emergency plan and exercise; to establish the site before the handover confirmation form and other measures and implementation. As of October 2017, no similar incidents occurred. The application of FOCUS-PDCA to solve clinical problems can achieve continuous improvement and enhance patient safety and quality of medical care.

Conclusion

Production of oxygen valve box supply scope and operation instructions; emergency stop emergency plan and exercise. It is very important for patient safety.

Patient forums

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Background

North Stockholm Psychiatry (NSP) is part of the Stockholm County healthcare system (SLSO), which is a county healthcare provider. We offer specialist psychiatric out- and inpatient care for Stockholm County residents age 18+ (service area: 350.000). Inpatient care contains of nine closed wards (139 beds), with both voluntary and involuntary detentions. Outpatient care contains of 13 local clinics. NSP employs approx. 920 people. Since 2007, SLSO has User Involvement Coordinators ("UIC", an employee with lived experience of psychiatric care set to develop and support structures around user involvement, on organizational level) employed at five of their ten specialist psychiatric healthcare providers. One of the larger tasks for the UIC is to arrange Patient Forums (PF) as a tool for quality improvement. PF started in 2008 at Psychiatry South Stockholm. PF is now a mandatory process for all psychiatric inpatient care providers in SLSO.

Methods

We lacked thorough knowledge about the patients perspective on what was working and what wasn't at our inpatient wards. The power inequality made it difficult for some patients to speak up. We wanted to create a situation where the patients would be able to talk, and see if this could be to any value for our quality improvement work.

The UICs created a mandatory structure for PF:

1. PF is a weekly meeting (30 min) lead by the UIC, where all patients are welcome to tell their perspective about the ward.
2. PF is not an intervention or treatment for the patient.
3. Head nurse attends and takes notes anonymously. No other staff attends.
4. Participants can't bring up
 - a. Things about the individual care situation
 - b. Names on staff or other patients
5. Head nurse is responsible to address things that concerns the local ward.
6. UIC makes reports and statistics, and look for patterns on organizational level.

Outcome

In SLSO, since the start in 2008:

- More than 20000 subjects brought up by patients
- More than 3500 forums
- More than 14000 participants
- Avg of 3-4 patients per forum
- There's no pattern concerning diagnoses of the patients related to their participation, subjects they bring up, etc.

Outcome:

- PF results in quality improvements that comes directly from the patients perspective.
- PF offers a quick feedback to small changes.
- Staff gets more positive feedback than they thought they would.

- Our discussions are more about what is possible to do, rather than what the patient might want.

Conclusion

1. You need strong support from the board. PF will display the things that malfunction, and this must be addressed from the top or PF will be shut down.
2. Person leading PF:
 - a. someone not working at the ward but in the organization,
 - b. has lived experience of psychiatric care...
 - c. ...and qualifications for the job
3. A common opinion among staff before having PF is that the patients at their specific ward are “too sick to have PF”. This hasn’t come true since the start in 2008.

Message to others:

1. Have a UIC or similar employed.
2. The UIC recruitment is crucial: This is not a job for everyone.
3. PF has taught the organisation that patients are valid partners in the quality improvement work.

Orthogeriatric treatment and care benefits both patients and professionals: A focus group study

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Background

For decades, hospitals have been ‘vertically’ organized, with the risk that specialization leads to fragmented and one-sided views of patient care and treatment which again may cause poor communication and coordination of care and treatment.

Elderly patients admitted with fragility fractures often suffer from multiple comorbidities and a high risk of developing postoperative complications. Thus, patients with fragility fractures often need treatment and care from more than one medical specialty are therefore exposed to the risk of poor communication and coordination. To address these challenges, orthogeriatric care was developed as a model of collaboration between geriatricians, orthopedic surgeons, and an interprofessional team of relevant healthcare professionals. Orthogeriatric care aims at improving quality in patient care as for example reducing mortality and postoperative complications. Furthermore, quality can be visualized by assessing healthcare professionals’ perspectives.

Methods

In January 2013 a steering committee consisting of departmental management members from the departments of medicine, orthopedic surgery, and therapy assigned a group of clinical stakeholders to be responsible for the planning and implementation process of an orthogeriatric care unit. Along the process staff members were invited to contribute.

The orthogeriatric unit for acute elderly patients admitted with fragility fractures was opened on 1

March, 2014, as a section of an orthopedic surgery department at a regional hospital in Denmark. While staffing was essentially unchanged, the structures and processes guiding interprofessional collaboration were changed. For instance, every weekday interprofessional team meetings were held in which all professions at work on the day were represented to secure shared goals and optimal treatment. The meetings usually lasted about 20 minutes. They were followed by meetings in smaller interprofessional groups for the coordination of patient care.

Outcome

Orthogeriatric care were found to improve treatment quality in elderly patients admitted with hip fractures, and the reason given was that orthogeriatric care addressed all issues relevant to the patients’ well-being.

Healthcare professionals emphasized that interprofessional collaboration was strongly stimulated by the introduction of orthogeriatric care. In particular, the systematic and frequent face-to-face communication enabled by the interprofessional team meetings was considered essential to their feeling of enhanced collegial solidarity. Furthermore, healthcare professionals expressed their respect for other groups’ competences and their vital contributions to good

orthogeriatric care. However, the greatest challenge appeared to concern professional satisfaction and growth. Furthermore, heavy workloads were mentioned as a stressor and offhand one of the reasons for leaving the ward.

Conclusion

The introduction of orthogeriatric care was seen as an improvement of the quality of treatment by all healthcare professionals. Nevertheless, 2 years after the implementation, the orthogeriatric model continued to be challenged.

Considerations on how to stimulate professionals working with orthogeriatric care and how to ensure good working conditions – including considerations on the optimal organization of orthogeriatric care for maximum job satisfaction – are relevant.

Implementing Background Screening to Protect Healthcare Institutions against Document Fraud

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Background

With the global healthcare sector evolving at such a rapid pace, the DataFlow Group - a global provider of background screening and immigration compliance services - is witnessing an alarming increase in forged or embellished credentials presented by unqualified practitioners looking to unrightfully secure better jobs, salaries, positions and professional licensure in healthcare institutions across the world. For healthcare establishments, weeding out fraudulent individuals without specialized assistance and ensuring protection against the countless risks posed by document fraud is a complex task, which is precisely where the implementation of an advanced, rigorous, accurate and customizable background screening process that covers identity, visa, academic, employment, professional and financial credentials becomes imperative -

especially for those importing labour from overseas.

Methods

The solution offered by the DataFlow Group is known as Primary Source Verification (PSV), which authenticates applicant documents directly from the original issuing source. Compared to traditional verification procedures, PSV guarantees optimal information integrity due to its unique, thorough approach, and verifies content listed on the presented document, as opposed to the superficial authentication of signatures or stamps; a widely common practice insufficient to confirming the genuineness of a credential. PSV also includes an additional layer of security through a check on the accreditation of the issuing authority, course and mode of study, and through a check on whether the staff at the institution is authorized to have issued the document. Lastly, PSV differs from what is known as pre-employment screening, which is carried out for compliance purposes and is not necessarily based on the actual certificate issued officially against the information submitted by the applicant.

Outcome

By detecting hundreds of thousands of forged and misrepresented documents every year, we were able to better protect the safety and wellbeing of patients worldwide, as well as help healthcare institutions around the globe avoid possible financial, regulatory, reputational and internal implications incurred on the organizational level.

Conclusion

The best way to ensure that both medical institutions and practitioners maintain excellent quality standards and serve their respective communities to the best of their abilities is by affirming and sustaining integrity, competence and professionalism across all levels of the value chain. This can only be achieved with such effectiveness by leveraging the most rigorous verification solution available to date - PSV - thus enhancing the overall level of care within the healthcare sector and ultimately safeguarding global communities.

Famna's forum for competence in eHealth - Perspectives on eHealth in the microsystem

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Background

E-health innovations are globally described as one of the major driving forces to innovate health and social care. In line with technological and demographic developments a demand for new competencies is needed for both employees and organizations. At the same time many of the employees in the social care sector do not have enough knowledge regarding the potential of new technologies. The purpose in the project is to meet the needs for competence and at the same time create attractive workplaces needed to attract future employees. 11 member organizations in Stockholm are included in the project, among these you find 19 eHealthcoaches (part time project leaders) that together will help 1300 employees to increase their digitalization skills and contribute to a sustainable structure for workplace learning. Famna's forum for competence in eHealth is a regional project in Stockholm, Sweden financed by the EU and the European Social Fund in Stockholm.

Methods

Strategic focus on internal eHealthcoaches in the participating organizations. Majority of the eHealthcoaches are found right in the middle of the microsystem working as assistance nurses, IT-controllers, social workers and quality development leaders.

1. I: Identify and meet the employee's specific needs of competence in digital work.
2. II: Creating/building organizational capacity in workplace learning. Teach the methods of quality improvement. Learning by doing with the support from the project leader at Famna.
3. III: Create permanent structures for continuing professional development for tomorrow's needs. For examples learning networks.

Support the organizations in the processes of gender equality, accessibility and non discrimination as an integrated part of the continuous development work

Outcome

The eHealthcoaches have met over 1000 employees and many leaders to discuss needs of competence and digital changes at their workplaces. In their discussions they have included issues of gender equality, access and non-discrimination. The analyze showed need to start from the very beginning, with basic education in digital systems and work processes regarding eHealth. One aim was to decrease the employees' insecurity of using existing digital systems. Famna's forum for values is another important part of the projects second level. This is a leadership and quality development program that is inspired by the Dartmouth Microsystem Improvement Curriculum and includes a training program for improvement coaches. It is about creating a culture of continuous improvement. A total of 30 local improvement works will be carried out until November 2018, resulting in an increased ability to drive change at their workplace among the eHealthcoaches and team members.

Conclusion

We see that employees now have a better understanding of eHealth and what it can contribute to. When you have the will and get the mandate and the right tools the desire to find better solutions is increasing, and it also strengthens the employee and gives job satisfaction. One of the CEO: ssays; "The assistant nurses have been highlighted through this project and has created pride among them. They have become more involved in education and development in the organization. By know we also have about 100 "internal educators" (employees) among the 11 participating

organizations that educate their own colleges. This is a great way to ensure that the competence stays within the organization. You need to stress the purpose with the project from the start and never stop talking with the employees and leaders about why we do this, “what’s in it for me, us and the patients”?

Availability of Medical Air in the Ward Environment at Barnet Hospital: A Quality Improvement Project

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Background

Piped medical air is available at the majority of bed spaces in Barnet Hospital. Both oxygen and air flowmeters share the same “Christmas Tree” outlet to connect to tubing for facemasks or nebulisers. It is therefore straightforward to connect tubing to medical air accidentally, potentially giving patients insufficient oxygen and leading to adverse events relating to hypoxia. These risks were highlighted by a patient safety alert released by NHS improvement.

Methods

One afternoon in June 2017, each bed space in 4 inpatient wards (2 medical, 2 surgical) was assessed for the following criteria: 1) Presence or absence of air flowmeters; 2) If present, documentation of an indication for medical air; 3) If present, whether any measures to reduce the risk of administering air inappropriately were taken. From 78 bed spaces, 42 had air available. In 5 of 42 there was an indication (air driven nebulisers). In 9 of 42 instances a flap marked “medical air” covering the nozzle was present. In 15 instances, warning signage was present. These results were communicated to the Clinical Director of Critical Care, the Deputy Director of Patient Safety and Risk, and the Medical Devices Committee.

Outcome

The decision was taken at the Medical Devices Committee to remove all air flowmeters from ward areas and store them in the medical devices library and to encourage the use of separate electrical air pressurisers instead. The Head of Medical Devices was made responsible for the removal of flowmeters from wards on a four month timeline. After the change, the same wards were reassessed one day in October 2017. 78 bed spaces were examined. 30 of these had air available. Of these 10 were indicated, and 18 had some safety measure in place, (3 with a flap, 14 with a warning sign, and one with flap and sign). Importantly, 18 of the bed spaces with air flowmeters were on the same ward. The intervention resulted in a 46% decrease from 37 to 20 bed spaces with medical air available without any indication. We anticipate that this has reduced the risk of erroneously administering medical air instead of oxygen to patients at these bed spaces, and therefore the risk of causing harm due to hypoxia.

Conclusion

The intervention resulted in a 46% decrease from 37 to 20 bed spaces with medical air available without any indication. We anticipate that this has reduced the risk of erroneously administering medical air instead of oxygen to patients at these bed spaces, and therefore the risk of causing harm due to hypoxia.

Embedding Quality Improvement in Therapies; a Trustwide Approach

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Background

Imperial College Healthcare Trust (ICHT) employs 10,000 staff including 600 Occupational Therapists Physiotherapists, Speech therapists and Dietetians. It cares for a million people annually. We were four therapy Quality Improvement (QI) leads OT x 2, PT & SLT who aimed to embed a culture of continuous improvement in therapies at ICHT, enabling therapists to make changes that had a positive impact on patients, staff and services. In 2015 ICHT launched a trustwide QI programme. At the heart of this programme was making quality central to everything we do. Although some therapists were early adopters of QI, completed projects had limited sustainability or spread of outcomes. Therapists typically completed discipline-specific projects, rarely involving other MDT members. Improvement needed to become more MDT and patient-focussed.

Methods

We joined the ICHT's Coaching and Leading for Improvement Programme (CLIP), to become improvement coaches. We engaged the Therapy's executive lead for quality and safety to sell this aim, drew up our QI strategy and obtained leadership buy-in by engaging therapy leads across ICHT sites. We then surveyed therapists which allowed us to measure engagement and solicit ideas for future improvement.

We created a presence in therapies by placing QI material on its website and education bulletin and developed a therapy QI email. We role-modelled by leading QI projects, collaborating across multidisciplinary teams and engaging staff in projects. We coached teams out of our usual scope of practice to share learning and facilitated spread of interventions. We now assist with the teaching on the CLIP programme and offer teaching to therapy teams in their workplaces.

Outcome

Our project tracker measures projects' progress and outcomes and we also meet people who have completed projects for feedback about QI, their experience working with us and how their service has improved. To date, we have led 15 QI Projects across all therapy disciplines and been consulted about 12 more since April 2017. A staff survey (October 2017, 85 respondents) found 93% therapists knew about QI and 37% utilise it in their daily work. 34% therapists have a QI-based objective or training need in their annual appraisal. There is clearly more work to be done to continue to raise the use of QI methodology in every day practice and the strategy will enable us to continue doing this. The profile of therapies has been raised by therapists co-leading trustwide projects with other teams and enabling therapists to lead projects and create change in turn improves job satisfaction. We have seen improvements to patient pathways and more joined-up, cohesive working between the MDT.

Conclusion

Setting up a QI strategy for therapies across the Trust has resulted in an increased uptake in involvement of therapists in improvement work. The main problems encountered were maintaining support and enthusiasm, managing the managers expectations, and keeping momentum. It's been difficult balancing clinical and operational work with running the therapy QI strategy.

The biggest lesson learnt is 'begin with the end in mind', be clear about your aims and measure from the beginning. You need buy-in from seniors, without it, projects will not be completed. If we started again we would prioritise a formal trustwide communication strategy to sell what we were doing.

Just GO FOR IT! Have belief in your ideas no matter your role or seniority. It doesn't matter if your change is small, it can make a big difference.

Excellent healthcare for Ireland shaped by good information: closing the clinical audit loop.

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Background

The National Office of Clinical Audit (NOCA) was established in 2012 to create sustainable national clinical audit (NCA) across the Irish healthcare system. NOCA is funded by the Irish Health Service Executive (HSE) Quality Improvement Division, operationally supported by the Royal College of Surgeons in Ireland and governed by an independent voluntary Board. Working with both the HSE and the Department of Health through its National Clinical Effectiveness Committee in Ireland, we design, establish and support a portfolio of NCAs based on national priorities. We promote transparent reporting and publish national reports for NCAs in our portfolio as well as provide local reports to hospitals.

NOCA advocates for change at both local and national level, arising from key findings & recommendations from NCA. We do this by working with senior decision makers at both policy and operational levels within the Irish healthcare system.

Methods

NOCA provides regular reports to each hospital and group enabling them to assess their performance throughout the year. Accountability rests with each hospital and group to use this information to understand how they are performing and what improvements are required. Monitoring of NCA data to detect statistical outliers from audit findings is carried out by NOCA. We engage with hospitals to review and investigate these outliers. Learnings from these reviews are included in national clinical audit reports.

At a national level, we collate and present recommendations arising from clinical audit reports to both the DoH and the HSE for acceptance and identification of owners for implementation. We present an update on implementation annually in a national report.

Outcome

NCA as an integral aspect of clinical effectiveness is still relatively new in Ireland. It is recognised by those who deliver and manage healthcare as a key component for improving patient safety, quality in healthcare delivery and improve patient outcomes. Hospitals are using their local audit to assure and improve service delivery. Learnings are shared in annual NOCA reports.

Ensuring that recommendations and findings from NCA are implemented is a key aspect of clinical effectiveness with the Irish healthcare system. This is closing the loop of clinical audit. While this is a relatively new process, it brings together key stakeholders with interest and authority to affect change and improvement arising from national clinical audit. Longer term outcomes will be evaluated and published in future NOCA reports.

Conclusion

NOCA champions the use of national clinical audit data to support and drive improvements in clinical care and patient outcomes. Working with key stakeholders in the Irish Healthcare system is a central tenet of this. We are passionate about the work we do and look forward to continued good working with all our stakeholders to achieve our vision

‘Excellent healthcare for Ireland shaped by good information’.

Falls prevention strategy for people with Dementia

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2Gether NHS Foundation Trust England

Background

The inpatient mental health unit for older people was given the challenge of reducing harm from falls by 50% within one year. The target group was the largest group of fallers - those with dementia. Using simple interventions and engagement of staff the target was achieved not only within that year it was achieved again in the following year and has been sustained since.

Methods

Very simple PDSA cycles were used with interventions put forward by clinical staff. The fact that they were putting their own ideas forward meant they were more likely to fully engage in the process and release maximum potential for success. The results were shown publicly as further encouragement and success celebrated widely. One intervention became nationally accepted and is now a frequently used approach, this added even more energy to those involved and was in many ways a recognition of their efforts.

Outcome

Using an extremely simple approach with the right methods of engagement and subsequent encouragement led to a very successful project. The change in attitude by staff is marked and whilst PDSA cycles needed to be re invigorated for sustainability the underlying acceptance that falls are everyone's business is now a norm.

Conclusion

By using the ideas of clinical staff and supporting with guidance in a widely understood technique projects stand a far better chance of success. Encouragement related to measurement of improvement also reinforces the purpose of their efforts and helps change attitudes and cultures.

Reducing Hospital Acquired Urinary Tract Infection

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Background

A quality improvement project was carried out in the Medical Center at Zealand University Hospital, a medium size teaching hospital in Denmark

The team involved was a clinical nurse specialist, head nurse, director of nursing and hygiene nurse. The project included four medical wards with 80 beds; caring for patients in medical specialities; gastroenterology, cardiology, endocrinology and internal medicine.

Urinary Tract Infection is one of the most frequently occurring hospital-acquired infections. In Denmark 27.5% of all infections are urinary tract infections. Baseline in the Medical Center showed an incidence of one hospital-acquired catheter-related urinary tract infection per month per unit. Urinary tract infection can lead to patient discomfort, extended hospitalization, blood poisoning and ultimately death. Urinary catheter is the main risk factor.

Methods

Model for Improvement was used as a frame for the project. Baseline data was collected in spring 2015 and the project was performed from August 2015 to June 2016. Changes from usual care: Indication of urinary catheter should be reviewed daily at rounding. Nurse lead discontinuation of urinary catheter. Weekly staff meetings. Changes were carried out by Plan-Do-Study-Act.

Attention and discussions were supported by management. When progresses were made, it was acknowledged and celebrated with staff.

Outcome

Urinary catheter-related urinary tract infection was reduced from 3 infections per 100 days to 0-1 infection per 100 days.

The patients experience fewer infections, are carrying a urinary catheter for a shorter period due to daily reconsideration and early removal. Staff experience a reduced need of care due to early mobilisation when urinary catheter is removed, but also a greater need of care according to mobilisation.

Conclusion

A quality improvement project using Model for Improvement can reduce hospital-acquired infections.

Exploring and knowing the problem is important when a new goal is defined and communicated. A clearly defined problem gives the opportunity to identify and celebrate improvement. Close collaboration with team members is important.

Benefits for patients but also the staff is a key motivation to change.

Saving Lives Through Accident Prevention

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Background

Our objective was to empower frontline clinical A&E staff to give good quality advice on preventing unintentional injuries in the home more frequently to parents attending Paediatric A&E at King's College Hospital, London.

Methods

Our first two interventions were aimed at A&E staff. An email was sent out to all A&E staff highlighting the burden of preventable accidents in the home, along with some simple advice to give parents. We analysed KCH A&E data to calculate home accident statistics (detailed above) which we included in the e-mail, making the information as relevant to the local population as possible. The second intervention was a poster displayed in A&E, reminding

staff to give home safety advice to parents.

Data was collected via a questionnaire from staff at the A&E morning safety huddle to determine the frequency of home safety advice giving before and after each of our interventions were implemented.

Outcome

Following both the first intervention (e-mail to staff) and the second intervention (poster displayed) we recorded that 80% of A&E staff interviewed said they had given accident prevention advice to parents in A&E in the preceding fortnight (before the first intervention, this figure was 40%), suggesting that these interventions were successful.

We received enthusiastic and positive feedback from staff in A&E and found that, by the end of our project, most members of A&E staff were familiar with our leaflets and poster: we are confident that they will continue to be used.

Conclusion

We created a sustainable improvement in education around accident prevention. The poster remains on display in A&E and the leaflet is available in A&E where it has been incorporated into the department's materials. The next stages of this work are to: engage other paediatric and neonatal areas; start

discussions around accident prevention in the antenatal period and take the prevention work into the community setting. There are plans to start education within local schools around accident prevention using the leaflets and posters.

Improving patients' self-care management in Obstetrics and Gynaecology: A technological needs assessment from a Human Factors approach in a Scottish hospital

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Background

This was carried out in a Scottish hospital over 8 weeks in the gynaecology department. The core team consisted of myself as the primary researcher, supervised by Evridiki Fioratou (Behavioural Sciences Lead), and 2 consultant gynaecologists as clinical supervisors. The full team was more extensive, consisting of nurses, pathologists, oncologists, the nurse liaison team and more.

Methods

Through observation, questionnaires and focus-groups, the barriers and facilitators to optimising patient care were identified from the Systems Engineering Initiative for Patient Safety (SEIPS) 2.0 model's work system: people, tools and technologies, organisation, tasks, internal and external environments.

Data was collected from patients (N= 24) and their healthcare providers (N= 25).

Improving the quality of healthcare and optimising patients' physical and psychological well-being is the goal of HFE. Using the SEIPS 2.0 model and CHIT, this pilot study aimed to examine the patient-provider and provider-provider interactions within their complex socio-technical systems.

After identifying their technological user needs, the next phase would be to create a tool to improve their work systems to achieve patient literacy through engagement. The proposed change is to create a bolster to a robust healthcare system, the NHS, a website designed and developed by the team.

Outcome

This pilot study provided insight into the needs for patient self-management as well as revealing that care providers also found value and use in using technology to complement their care for their patients

Following this study and staying true to HFE and CHIT, the development of a website to improve the patients' self-care in gynaecology is underway, with the input of 2 consultant gynaecologists and the members of the multi-disciplinary team. The content of the website will be provided by the team and aim to serve as a healthcare companion to the ever-expanding database of patients in the Gynaecology-Oncology Fast Track clinics. The anticipated benefit to patient care is improved quality of healthcare delivery and patient education.

Conclusion

Anticipated challenges include application to the NHS Tayside for support and on the technical aspect, the features and aesthetics of the website that is true to the ethos of this project.

Capacity for Change

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Background

Tan Tock Seng Hospital (TTSH) is 1500 bed hospital managing adults with acute illnesses. The Department of Psychological Medicine (Psy) receives referrals for decision making capacity assessments (DMC-a) which are often cancelled/delayed leading to waste in clinicians' time and delays in care delivery. Preliminary data via audits and a survey of doctors from General Medicine (GM) (the highest referral source) was done.

Number of DMC-a referrals increased from 2011 to 2017 (19 to 31/month); most were initiated by GM for placement/procedure related decisions. 25-40% are 'waste'; the main reasons being inadequate information provided and no disease of the mind identified. Survey results: basic knowledge of what DMC-a was good, disagreement that only a psychiatrist can do a DMC-a was high, agreement that learning how to do DMC-a was beneficial to training & willingness to complete assessments after being taught was high. Agreement that it was a time consuming assessment was moderate.

Methods

- (1) A referral form designed to ensure adequate information provision. This ensures a good quality referral and creates an opportunity to educate the referrer.
- (2) Interactive educational platform with GM using case based discussions (yearly)
- (3) Teaching module designed to teach junior doctors rotated through Psy (interactive didactic with case based discussions). We intend to capture the knowledge gained using a pre and post teaching multiple choice question based on theory and case scenarios.
- (4) To address the educational needs of the larger group of doctors and MSWs, build a gamified electronic teaching module and track learning outcomes.

Outcome

Completed interventions include: GM pre-teaching survey – November 2017, GM-Psy joint teaching – November 2017, internal teaching session 1 (Psy trainees) – February 2018.

Internal education of Psy trainees demonstrated an improvement in scores from 61.4% to 74.7% post teaching.

Anticipated final results: reduction in referrals/month by 25% in 6 months and waste reduced from 25 - 40% to 0%.

Conclusion

What we envision is empowered clinicians applying concepts learned to complete simple DMC-a. Complex referrals made to Psy to be of good quality. The impact would be: shift in the culture where only psychiatrists can do DMC-a, zero wastage of Psy clinicians' time and timely delivery of care to patients (impacts length of stay, cost of hospitalization and quality of care).

Several challenges were anticipated: buy in from the referring departments – resistant to the concept that DMC-a are not unique to Psy, medicolegal fears, fears that learning how to do DMC-a is complex and difficult, sustaining our education efforts long term, cost of an electronic teaching module and ability to scale to the whole institution.

It is crucial to listen to the voices of all stakeholders. Education as an intervention for change, although considered weak, is needed for change long term.

Better and safer patient experiences during radiological procedures

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Background

Interventional radiology and image-guided procedures in radiological departments have enhanced rapidly over recent years. Pain or anxiety during radiological procedures may lead to patient dissatisfaction or physiological problems. Therefore, adequate medication is needed for ensuring better and less painful experiences for the patients. However, intravenously (IV) administered medicines are vulnerable to errors and can result in significant patient harm. In Finland, radiologists prescribe the medicines but radiographers (in Finland: radiological nurses) are responsible for the correct administration and titration of IV medicines. To ensure patient safety, we designed and implemented a multiprofessional simulation-based IV pharmacotherapy education intervention (SBE) for radiologists and radiographers in University Hospital.

Methods

The SBE intervention consisted of simulation exercises plus a one hour lecture to the radiologists or a 2.5 hour lecture to the radiographers. The small group simulations (2 / group) were arranged “in situ”, in the radiological unit between 10/2012 and 12/2012. To assess the effectiveness of the SBE we collected data using a) knowledge tests before, 1-2 weeks and 6 months after the education, and b) interviews with radiographers before and 3 months after the education.

Outcome

The multiprofessional SBE enhanced the radiographers’ IV pharmacotherapy knowledge, which was maintained in the same level months later. The realistic simulations conducted “in situ”, allowed the radiographers to develop medication administration skills and the related patient observations and monitoring. The SBE expanded the radiographers’ understanding of the significance of adequate analgesia, and this changed routines: radiographers reported taking more active roles in the multiprofessional team, e.g. prompting the radiologist to prescribe analgesia. The SBE also improved team work and communication.

Conclusion

We conclude that we have developed an effective continuing IV pharmacotherapy education for radiology departments to promote patients’ well-being and patient safety. Additionally, we have promoted patient analgesia and assessment of pain and opioid side effects, meaning less traumatic and better experiences for patients during imaging procedures.

Delirium 5: an intervention to improve reliability and safety in delirium care

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Background

Guy's and St. Thomas's NHS Trust (GSTT) incorporates two large teaching hospitals in South central London. Delirium is a problem seen in around 20% of medical inpatients and is associated with increased psychological and physical morbidity, institutionalisation and death.

In GSTT 40% of fallers are 'confused' at the time of the incident with a monthly mean of 48 such falls. 5 case reviews of 'confused' patients who had fallen and sustained a series injury revealed suboptimal recognition and management of delirium.

Methods

8 multidisciplinary focus groups were established across 3 wards to share experiences and elucidate the underlying issues. 7 patient and relative interviews were conducted.

A campaign called 'Delirium 5' was co-designed with staff and launched, initially on a pilot ward. It mandated five actions after the onset of delirium symptoms (diagnosis, falls management, nursing management, medical management, family engagement). Posters, leaflets and a resource for use on smartphones were created. Delirium 5 was promoted in daily ward handover meetings.

A short film, 'Christine's story' was made in which a patient provided a vivid description of her terrifying delirium experience and the suboptimal clinical response. It was used in departmentally and at higher level trust safety meetings to facilitate the adoption of the Delirium 5 on a further 6 wards. A large trust-wide 'community of practice' was formed, including staff and relatives of delirious patients, to innovate and drive change.

Outcome

Notes of patients presumed to be delirious were sampled before and after the intervention. Cases were identified by nursing staff as more muddled or confused than usual, or 'just not quite right'. Rates of completion of the five key Delirium 5 interventions within 24 hours were measured.

The proportion of total fallers who were cognitively impaired (delirium or dementia) was measured across time, before and after the intervention, using routinely collected data.

The proportion of cognitively impaired fallers in the intervention wards significantly reduced from the 12 months before the intervention to the 4 after from 53% to 27% ($n=562$, $p=0.0003$) Pre-and post-intervention sampling ($n=11,16$) revealed rates of key delirium 5 interventions all increased including falls assessments, nursing management, medical management and family engagement. Improvements in diagnosis of delirium and use of the CAM (confusion assessment method) achieved statistical significance ($p=0.001$, $p=0.001$).

Conclusion

Reduced falls in this project were associated with more reliable identification and management of underlying delirium, indicating these as important targets for any inpatient falls reduction programme. The wards with the most effective adoption of the improvement approach were those where clinical engagement happened at the stage of defining the problem rather than evaluation, underlining the importance of early clinical engagement to drive change. Lastly, engagement was enhanced by orienting change efforts around a patient story.

Comprehensive management of is a potential avenue to reduce the other harms associated with this common and distressing condition. This project has allowed the principles of Delirium 5 to be operationalized into the routine electronic clinical notes system across the trust in order to improve the experience of patients with delirium.

Safety hazards during intrahospital transport of critically ill patients

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Background

This study focused on intrahospital transport (IHT) of critically ill patients from the intensive care unit (ICU) to other settings within the hospital. IHT of critically ill patients is a complex, high-risk procedure that presents several safety challenges. These includes the unknown environment, the need to use less sophisticated monitoring equipment, and the reliance on fewer technical, pharmacological, and human resources if the patient's condition should deteriorate. Moreover, complications, mishaps and adverse events have been estimated to occur in up to 80% of all IHTs of critically ill patients. This study was undertaken at two ICUs located in a university hospital in Sweden. As a foundation for the development of future patient safety interventions, the aim of this study was to identify, classify, and describe safety hazards during the IHT process of critically ill patients.

Methods

We performed an ethnographic study using semi-structured observations (between February and May, 2016). IHTs were performed by one or more critical care nurse, assistant nurses, and occasionally physicians. A purposive sampling of IHTs, aiming for maximum diversity among different kinds of transports, teams, and patients, were used. Participant observations of the IHT process were conducted and recorded with field notes.

The Systems Engineering Initiative for Patient Safety model was used to assess hazards during the IHT process of critically ill patients. The model provides practical guidance to empirically examine system design in relation to patient safety. The general structure of the model is that the work system, in which care is provided, affects clinical processes, which further influences patient, employee and organizational outcomes. Data were analyzed using deductive/inductive content analysis and descriptive statistics.

Outcome

A total of 365 hazards during 51 IHTs of critically ill patients were detected. Most hazards during the IHT process were related to tools and technology used (n=124), including poor usability and unreliable functioning of transport equipment, and equipment errors. This was followed by task-related hazards (n=83) such as disturbances and interruption, as well as task complexity. Team related hazards (n=61) included cooperation problems, lack of shared situational awareness, and unclear team roles, which affected team performance. Further, environmental and organizational hazards (n =48; n=49) such as obstacles in the surroundings and limited communication between hospital units caused problems when providing safe patient care. The majority of detected hazards were assessed as increasing the risk of harm, compromising patient safety (n=204).

Conclusion

Findings suggest that IHT is a hazardous process for critically ill patients, but the majority of detected hazards did not result in any observable patient harm. The results can be used to develop safety strategies to mitigate and eliminate identified hazards related to the IHT process of critically ill patients. This study provides a foundation to design future

patient safety interventions for safe IHTs, which then needs to be tested, implemented, and evaluated. Moreover, our results support the usability of the Systems Engineering Initiative for Patient Safety framework combined with ethnographic observations to investigate a high-risk process within critical care.

Scaling the Great Wall: Patient Experience Program in China

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Background

United Family Healthcare (UFH) is a pioneering, international-level health system providing comprehensive, integrated healthcare in China. UFH has led the way in private international healthcare in China. After more than two decades, UFH has established itself in Beijing, Shanghai, Guangzhou, Tianjin, Qingdao, Wuxi, Nanjing and Hainan as the provider of choice for those seeking premium, personalized healthcare. UFH is constantly striving to meet and exceed worldwide service quality and patient safety standards. Establishing and successfully operating any business in China is challenging, but even more so private health delivery. UFH has pioneered a viable market-based model within a state-run healthcare system while overcoming various challenges. The challenge has been for UFH to design systems that deliver the best patient experience for the local patient base while not losing the international aspects of our offering that set us apart.

Methods

UFH has based its success on the goal of providing excellent patient experiences never before experienced in China. However, western models are not effective in a growing Chinese patient population. This was identified based on HCAHPS survey results. Top management, patient services, quality and safety and training departments discussed and created a taskforce to improve patient experience. Various sectors of the organization have implemented multiple initiatives to improve patient experience to satisfy a unique set of patient demographics and demands. A one-year program was initiated by top leadership and carried out by a task-force. Consultations with physicians, nurses and administration groups were scheduled throughout the year. Interventions include: Incorporating the UFH Way program to define, disseminate and integrate the UFH values, patient journey multi-disciplinary simulation, and other patient-centered endeavors that improve hospital experience.

Outcome

Improvement of patient experience was measured through HCAHPS, and analysis of patient complaints and event reports. After initiation of the program, HCAHPS scores have improved and patient complaints were significantly reduced. Patient loyalty from both the expat community and local Chinese is also evidence that UFH has attained desirable organizational goals through various patient experience initiatives. Today, UFH continues to grow as it prepares for the opening of 3 more full-service hospitals and innovative partnerships that expand the UFH core value of patient-centered care.

Conclusion

Improving patient experience in a multi-site, multi-cultural and complex organization is not an easy feat. Buy-in from top-management and aligning program initiatives to organizational mission, vision and values is essential to sustain the program and see long-term results. UFH is recognized in China and by various international organizations as a leader in providing world-class service and a high-end private medical treatment model for the rest of the industries to follow. UFH meets the complex and diverse healthcare needs from across China and the rest of the world. With 20 years of continuous growth starting from a small hospital in Beijing to a 5-hospital, 14-clinic network, and with more

development underway, UFH stands as a testament of how strategies focused on patient experience can reap rewards in the business perspective as well as organizational reputation in China.

Psychological responses and psychosomatic symptoms of second victims of adverse events: a systematic review and meta-analysis

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Background

IMPORTANT NOTE: 4th and last author of this abstract: Michela Rimondini; Section of Clinical Psychology, University of Verona. Background: Adverse events do not only affect patients but represent highly stressful experiences also for the involved healthcare providers, who are indeed considered as second victims. Second victims do not only feel responsible for the occurred adverse event but also undermine the perception of their professional skills and knowledge. Adverse events may negatively affect several aspects of life of healthcare providers with a relevant psychological impact. Even if few systematic reviews investigated different aspects of adverse events and their impact on second victims, up to now, to the best of our knowledge, a meta-analysis, quantifying the psychological impact of adverse events on second victims was still missing. This study aims to summarize and critically analyze type and frequency of psychological responses and psychosomatic symptoms in second victims.

Methods

A systematic search of nine electronic databases (e.g., PubMed, Scopus) was conducted. Aiming to identify additional studies, other sources (e.g., key journals, grey literature databases) were also examined. Two reviewers independently screened titles and abstracts of all the records and then evaluated the full texts of the records considered as eligible. Cases of dissent were discussed by the two reviewers and, eventually, a third one was involved. Data extraction (e.g., study design, sample characteristics, frequency rates) from the selected studies was performed by the two independent reviewers.

In the next phase, considering the heterogeneity of the examined populations and the different grades of exposure to adverse events across studies, a random-effects model will be used to calculate pooled frequency rates of second victims' psychological responses and psychosomatic symptoms.

Outcome

The search of all databases and additional sources provided an overall amount of 7209 records. After screening by titles and abstracts, 104 full texts were evaluated and a final amount of 29 articles was selected. The experience of anxiety, guilt, sadness, and loss of self-confidence were among the mostly investigated and reported negative psychological responses. Only two studies explicitly assessed the occurrence of post-traumatic stress disorder showing a prevalence of 17% (78 subjects out of 461) and 5% (81 out of 1628). Three studies evaluated the impact of adverse events on cognitive functioning and in one of these, concentration deficit was reported in 79% (i.e., 26 out of 33) of the cases. Sleeping disorders were the mostly investigated and reported manifestation among the psychosomatic symptoms (i.e., ranging from 15% to 80%). Since the project is still in progress, these data represent preliminary results and further evaluations, including a complete meta-analysis, will be performed.

Conclusion

Since the results shown are preliminary, we believe that further interesting evidence will emerge by the meta-analysis. Nevertheless, we expect that the main challenges of this study will be the high heterogeneity of the type of instruments (e.g., multiple choice or short answers questionnaires) applied to collect the information about the impact of adverse events on healthcare providers as well as the diversity of investigated symptoms.

The findings of our study, the first one of its kind about second victims, will provide an accurate overview about the psychological burden of adverse events on healthcare providers, demonstrating the repercussion of such events on the healthcare community. Furthermore, we strongly believe that the collected evidence may represent a robust background for the development of focused support programs for second victims.

Maintaining perioperative normothermia from operation theater to postoperative care unit

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Background

Hypothermia (core body temperature of < 36 Celsius) is not uncommon during anaesthesia and considered as an important adverse event of anaesthesia. Nowadays anaesthesia –related adverse event was enrolled into the Taiwan Quality Indicators Project (TQIP). A team combined Anaesthesia and Operation Theater was setup to establish standard thermal care, quality improvement projects and regular feedback.

Methods

To initiate the program, we held a series of departmental education, surveillance and feedback, clinical practice demonstration. The objective this program were: less than 5% of perioperative hypothermia and 100% of standard body temperature monitoring and thermal care.

The Plan-Do-Study-Act (PDSA) cycles have been done including: standardized temperature monitoring method in operation theater, keep body temperatures during transfer from operation theater to post-anaesthesia care unit (PACU), ensuring use of air forced warming blankets in the PACU. The primary outcome is assessed by body temperature on admission to and discharge from PACU. The recordings were obtained from departmental QA data bank.

Outcome

There was a 13% improvement in the number of patient arrival to the post-anaesthesia care unit with hypothermia (<36.0 C) from 31% in Jun~Aug 2017 to 18% in Sep~Oct 2017. There was a 13.6% reduction in the number of hypothermia patient discharge from the post-anaesthesia care unit from 14.6 to 1% during the same period.

Conclusion

A well-established perioperative standard protocol of temperature monitoring and management played the key role to patients undergoing anaesthesia. A team work between operation theater and the PACU provided continuous temperature management thus ensured the perioperative care quality.

Quality of Family planning service, through client satisfaction exit interview

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Background

Clients' satisfaction is considered as a direct indicator of quality in health care and essential for evaluating and improving services.

Clients' perceptions that have received high quality care are associated with their willingness to adopt, continue, and effectively use contraception, and their likelihood of returning for services again.

Family Planning Program is the corner stone in management of overpopulation problem in Egypt, where the overall population reached to 93.78 million in 2015, According to the Egyptian Demographic Health Survey (EDHS) 2008, the total fertility rate was 2.8 child per woman and increased to 3.7 child per woman in 2017.

The study was a facility based cross-sectional study, it was conducted from March to April 2016 in Saeid primary health care center PHC, Tanta city, it serves 700,000 population. It is considered as the largest PHC in Tanta city, the capital of Gharbya Governorate, located in Middle Delta Region of Egypt.

Methods

The target population were users of family planning services attending Saeid PHC, the family planning unit receives about 35 to 50 clients per working day. The study sample included 230 clients recruited by using systematic random sampling technique.

Data was collected through a client exit interview. The interview questionnaire was adopted from USAID, 2010 & Hutchinson et al., 2011 to collect information about: demographic, family planning methods used by clients and client satisfaction for both the provided services, and the service providers.

It is a five point Likert scale (very dissatisfied =1, dissatisfied=2, neutral=3, satisfied=4, very satisfied=5)

The overall client satisfaction score was summed up and classified into satisfied above cut off point and dissatisfied below the cutoff point.

A verbal consent was obtained after explanation of the aim of the study and confidentiality of the study was assured clearly for every woman.

Outcome

The study included 230 family planning users, their mean age was (30.7 years \pm 7.2) ranged from (18 to 46), half of them were from urban areas (51%). The highly educated females represented only 29%. The clients' overall dissatisfaction regarding the provided family planning services was (46.0%).

The highest percentage of satisfaction was reported regarding; privacy (97%) convenient working hours (79%), cost (68%) and accessibility (53%) of the service. However, "client/staff interaction" and "provision of information regarding contraceptive methods", were associated with reduced satisfaction. The highest negative responses were related to the : explain advantage and disadvantage of each method (80%), opportunity to ask (71%), counseling time (64%), staff interruption (57%) and the waiting area (51%). Lower satisfaction was significantly associated with younger age, higher education, urban residence and nulliparity (p-value = 0.006, 0.01, 0.001, 0.02 respectively).

Conclusion

Providing more than one clinic, regular group education during the waiting time, expansion of counseling session and establishment of kids waiting areas were suggestions provided by the study participants as actions to improve the quality of received family planning services.

Measuring client satisfaction level is a way to uncover shortcomings in service quality, it can provide a quick and inexpensive way to determine areas of service where quality could be improved. It is recommended to establish a system for supervision, recognition of good performance and continuous retraining of family planning service providers.

The study should be extended to include family planning users in rural communities.

Finally, it is necessary to disseminate the results of such kind of research to the responsible authority to take actions.

Improving information transmission towards patients after hospital discharge by introducing an optimised discharge procedure

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Background

Zuyderland Medical Center is a large hospital in the south of the Netherlands. A new discharge procedure was developed and implemented in the department of surgery. After discharge, many unanswered questions remain among patients, primary care physicians and pharmacists. These unanswered questions result in patients being less satisfied after discharge and lead to confusion among primary care physicians. Furthermore, complications can occur when medication use is not clearly understood.

A checklist was designed to improve safety and information transmission. Patients received the checklist before discharge in order to assess whether essential information had been understood. During the morning rounds on the date of discharge, the surgical resident discussed the checklist and answered any remaining questions before the patients left the hospital.

The goal of the current study was to assess the satisfaction of patients, nurses and surgical residents in using the checklist.

Methods

Patients, nurses and surgical residents using the discharge checklist were asked to answer a satisfaction questionnaire ranging in score from 0 to 4. Zero reflects total disagreement, 4 total agreement.

Outcome

In total, 6 medical doctors answered the questionnaire. All questions were answered with a mean of 2.3 or higher, meaning that medical doctors agreed that the checklist is time effective and has an additional value in informing patients about their hospital admission and making hospital discharge a safer procedure. Patients were also very positive about the checklist; 23 patients answered the questions with mean rates above 3.0 for each question. In total 16 nurses completed the form, the mean value was above 2.4, also meaning that nurses agreed the checklist has additional value in clinical care.

Conclusion

So far, patients seem to be more satisfied and more informed about their hospital stay and discharge procedure. Implementing the discharge checklist does not induce further time constraints for nurses and doctors. Doctors are able to verify if the patient understands what has been said. Furthermore, it is time effective.

Improving the Quality of Patient Education: Advice-seeking behaviour in Rheumatoid Arthritis Patients.

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Background

The Orpington Rheumatoid Arthritis (RA) clinic was reporting sub optimal patient education resulting in the clinic helpline being overloaded with inappropriate calls. We aimed to improve patient education, with our efforts directed towards information delivery on advice seeking to RA patients. Specifically we aimed for patients to score on average 80% on questionnaires after our interventions were carried out.

Methods

We devised a questionnaire for patients to test their knowledge on who they should contact for particular problems.

We implemented 3 PDSA cycles to improve knowledge and patient scores:

1. Producing and displaying posters around the rheumatology department
2. Conducting a focus group including a presentation
3. Adaptation of the poster into a business card for distribution to patients

Outcome

The baseline questionnaire revealed an average score of 13%. This was reduced to 7% following our first PDSA cycle. The second PDSA cycle increased average patient scores to 83%, surpassing our target. Our final PDSA cycle showed an increase in average scores to 71% – this was a significant improvement from baseline scores but failed to reach our target of 80%.

Conclusion

Displaying posters was not effective in increasing patient knowledge. The focus group proved to be the most effective intervention as it fulfilled our aim. Although the business cards did not reach our aim, they did significantly improve patient knowledge on seeking advice, and we expect that this method, in the long run would be sustainable, easily implemented and therefore most effective.

Decreasing Inappropriate Use of Anti-reflux medications by Standardizing Gastroesophageal Reflux Disease (GERD) Management in the NICU

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Background

This quality improvement initiative was conducted in a 97 bed, level 4 neonatal intensive care unit (NICU) at Johns Hopkins All Children's Hospital in St. Petersburg, Florida, a major tertiary care pediatric referral center. This project was developed by a multidisciplinary group focused on preterm infants admitted to the NICU with gastroesophageal reflux disease (GERD) symptoms.

Gastroesophageal reflux (GER) is a common functional self-limiting condition in neonates. There are wide variations in management of signs, symptoms, and complications associated with GERD in the NICU, with no evidence to support an empiric trial of anti-reflux medications. Premature infants have weakly acidic reflux rather than acidic reflux, and inappropriate use of acid suppressive medication has been linked to adverse clinical outcomes, like necrotizing enterocolitis and sepsis. Standardization decreases variations in practice, and the risk for medication errors, while improving patient outcomes.

Methods

Retrospective chart review of EMR provided baseline data regarding the use and dosage of GERD medications. A multidisciplinary group of providers developed evidence-based GERD management guidelines with an algorithm for preterm infants. Primary outcome was to reduce inappropriate use of anti-reflux medications, related to timing of initiation and dosing. Secondary outcome was appropriate timing for GERD testing. All three classes and doses of GERD medications were monitored for all patients. Project process improvement measures included, development of GERD management algorithm for preterm infants, GERD order sets and GERD education sheet for staff and parents. Multiple Plan-Do-Study-Act (PDSA) cycles allowed for effective implementation, with group meetings to address deviation from guidelines and removal of barriers. Education and communication plan was developed for all providers and drill down conducted with feedback provided to staff.

Outcome

Implementation of standardized GERD management guidelines in NICU decreased the overall use of GERD medications in all neonates from 15% to 2.8% and in preterm newborns less than 37 weeks (CGA) from 19.3% to 0%. Individualized use of each class of anti-reflux medications including H2 receptor antagonists, proton pump inhibitors and prokinetics decreased from 7.2%, 12%, and 2.7% to 0%, respectively, for all categories. The PPI lansoprazole was identified as the most frequently used GERD medication for patients under 37 weeks gestational age (GA). With revision of EMR medication dosing and introduction of GERD order sets, incorrect dosing of lansoprazole was decreased from 55% to 0%. The standardized guidelines and algorithm promoted effective testing and eliminated unnecessary use of anti-reflux medication. The overall rate of NEC and late-onset sepsis in preterm infants also showed significant decrease in trend from 6.4% and 13.8% to 4.3% and 8.9% respectively.

Conclusion

This project demonstrated that standardizing clinical management guidelines in NICU provided best practice GERD management strategies for a complex patient population and significantly reduced inappropriate use of dangerous anti-reflux medications. Evidence-based guidelines and electronic order sets promoted basic testing, while eliminating incorrect dosing, leading to improved patient safety and outcomes. There was reduced in hospital length of stay from 89days to 42 days to date with substantial impact on cost savings (85% reduction) from decreased use in PPI.

Improving Venous Thromboembolism Risk Assessment Rates in a Tertiary Urology Department

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Background

Venous thromboembolism (VTE) is a significant cause of mortality and morbidity amongst hospitalised patients. A VTE risk assessment reduces incidence through facilitating correct prophylaxis. Since 2010, the Commissioning for Quality and Innovation (CQUIN) payments framework dictates that >95% adult inpatients must have a VTE risk assessment within 24 hours of admission. This target was not being met by the urology department at Guy's hospital, London and needed improvement.

Methods

A 2-week baseline audit analysed demographics, admission routes and who was carrying out the assessments. This combined with discussion amongst the multidisciplinary team led to the generation of two interventions series to improve VTE risk assessment rates. The baseline audit identified patients admitted for elective surgery as the major problem group. To tackle this, the first intervention series placed stickers, stamps and posters in urology theatres. Posters prompted surgeons to complete the VTE risk assessment and mark the WHO checklist with a sticker/stamp once complete. The second intervention series aimed to improve assessment rates for patients on the urology wards using educational posters to prompt assessment. These two interventions series were implemented using three Plan, Do, Study, Act (PDSA) cycles within a six-month period. Changes were primarily communicated to staff members via email and with verbal reminders from the project supervisor.

Outcome

Data was collected at baseline and following each PDSA cycle. Main measures were: admission route, 24-hour VTE risk assessment rates and who was carrying out the assessments. At baseline, 24-hour VTE risk assessment rates were 75%. Following the surgical intervention series (two PDSA cycles), rates were 76% with an 8% increase for surgical patients. After the third PDSA cycle, rates were 73% with a 5% increase for surgical patients from baseline. Run charts displayed some evidence of improvement but no significant shift or trend. An unexpected change was an increase in doctor-led assessments from 79% at baseline to 98% in the last audit.

Conclusion

This project highlighted the need for effective communication. A large staff body meant face-to-face communication with all proved difficult. In hindsight, communication in meetings or staff handovers would have been more appropriate. Secondly, driving change on an established routine is challenging and requires education, firm interventions which cannot be ignored and a longer timeframe to alter attitudes. Finally, educational posters alone in the third PDSA cycle were not sufficient and should have been combined with formal education sessions.

Future quality improvement projects may use the lessons learnt in this project to generate efficient, sustainable change. In particular they should note the importance of effective communication, the difficulties in driving change and the need to allocate a realistic timescale. Such projects have the potential to reduce incidence of VTE thus reducing mortality and morbidity amongst their patients.

Fall Risk Assessment Accuracy Improvement by Using Auditing and Feedback to Health Professionals

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Background

Hendrich II Fall Risk Model had been utilised in Kaohsiung Medical University Hospital since 2016 and had been informatization in July 2016 for recording convenience; Quality Management Department will audit its precautionary completion rate via patient checklist monthly.

After auditing, we found out that, part of the patients' fall risk assessment scores were not correspond with patients' actual status.

Two reasons were discovered by investigating and observing caretakers while they operated the system.

Nursing staff didn't active the assessment tool accurately under re-evaluation.

Informatic system did not alert users on time for re-evaluation when there was a change in patient's muscle strength.

Methods

Quality Management Department will inspect nurses' awareness and accuracy of activating assessment tool monthly.

Quality Management Department discussed with Informatic Department for following changes that, the system will alert nursing staff to re-evaluate fall risk assessment automatically when there was a change in muscle strength. The system will not only alert nursing staff for re-assessment when deterioration in muscle strength, but will also alert when muscle strength has increased.

Outcome

Random inspection 27 wards of a total of 81 nursing staff during March to June 2017, with the accuracy of 100% on activation of assessment procedures accurately.

Compliance rate of fall prevention implementation increased from 81.9% to 94.4%.

Conclusion

With the utilization of informatic system can assist nursing staff to complete their work efficiently, however, management team shall collocate with improved inspection program to ensure patient safety timely.

A regular inspection and feedback to first line staff not only it can improve the flaw in system designing, but also to elevate system's convenience to users through discussion.

A Collaborative Project with Community Partner to Improve Access to Mental Health Care in Singapore

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Background

To detect dementia and depression early in the elderly in the community in Singapore, the Aged Psychiatry Community Assessment and Treatment Service (APCATS) in the Institute of Mental Health (IMH) trains community partners e.g. Ang Mo Kio Family Service Centre (AMKFSC) to screen elderly clients for dementia and depression using AMT and EBAS respectively. AMKFSC refers those who have been screened positive to APCATS, who will assess them for dementia and depression using MMSE and MADRS respectively. Clients who have been assessed to have dementia and/or depression are referred to specialists clinics.

It was found that the average duration between AMKFSC screening and APCATS assessment was 46 days. Only 39% of clients screened positive by AMKFSC were assessed by APCATS within 30 days. AMKFSC had fed back that the long delay affected service delivery to their clients.

Methods

APCATS and AMKFSC staff, after surveying the clients, agreed on a reasonable achievable stretch target, and a Clinical Practice Improvement Programme with the mission statement: To increase APCATS assessment of AMKFSC's clients within 30 days of screening, from 39% to 100% in 6 months, was implemented.

Root cause analysis using fish bone diagram and pareto chart found three root causes:

1. AMKFSC sends screening results to APCATS in batches
2. Data collection design
3. Lack of manpower

Interventions

1. Transaction Processing instead of Batch Processing

AMKFSC sent positive screened cases whenever they are screened positive (real time information) instead of by batches

2. Eliminate multiple entries.

AMKFSC input information directly into an app, eliminating the need to decode & transcribe data manually

Algorithm will populate results automatically into APCATS' excel sheets, eliminating the need for APCATS Ops staff to verify data or enter data into database.

Outcome

Transaction processing, where instead of sending by batches, AMKFSC sent cases to APCATS whenever they are screened positive, was easily implemented with immediate improvement in wait-time.

The AMKFSC staff encountered problems using the app and a few PDSA cycles were needed. They continued using paper forms during screening and keyed the information into the app only when they returned to the office as they felt it rude to key into the app during screening. They also found the app format not user-friendly and the font too small in their handphones.

They were advised to inform the clients about the app and to seek their understanding. The app developer was asked to improve on the format design and AMKFSC were given tablets with larger fonts to use.

Within eight months after implementation of the project, 78.6% of the clients were assessed by APCATS within 30 days of being screened positive by AMKFSC. The median was 12.5 days.

Conclusion

The project was successful in reducing the wait time for post-screening assessment. This resulted in earlier diagnosis of dementia and depression in the elderly in the community.

By using the app, 20 minutes were saved for each screening result (10 minutes for each team). The time saved allowed APCATS clinical staff to do more screening, home visits , capability building & case management work

Nurses Committee: a new way for improvement in Humanitas Research Hospital

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Background

Humanitas Clinical and Research Hospital is located in northern Italy. It is a multidisciplinary hospital with 747 beds and 2495 employees (521 physicians, 1027 nurses). The Culture of Safety in this hospital has improved continuously. Last year there were 1037 adverse events reported, with an incidence rate over 1000 days of stay equal to 5.

Although the culture of safety is improving, an analysis undertaken at the end of 2016 showed that quality and typology of adverse events reported (almost just medication errors and falls) and, in particular, nurses capacity in identifying process issues and improvement actions was not meeting expectations.

Therefore Humanitas Clinical and Research Hospital decided to create a Nursing Committee. The objective was to actively involve nurses with the aim of discussing processes, starting from their own adverse events or near misses in identifying issues and improvements.

Methods

The Nursing Committee is made up of 8 nurses, one nurse coordinator, a risk manager and a top manager physician, expert in risk management and clinical quality. In addition, the nurses involved in the adverse events analyzed are invited to each meeting.

The 8 nurses that constitute the Nursing Committee come from different departments: cancer center, orthopedic center, cardio center, internal area, Emergency area, operating theatre and research.

Every month the risk manager and the nurse coordinator choose two adverse events reported in the previous month.

During the meeting nurses involved in these events explain what happened to the committee. After the event timeline, an open discussion takes place which focalizes on effective improvements identification.

Outcome

From December 2016 to February 2018 the Nurses Committee met eleven times. In these meetings 26 critical issues and 30 improvement actions have been identified.

22 actions have been implemented, 2 are in progress and 7 are in stand-by.

These improvements go from simple actions (identifying subcutaneous medications with a red sticker) to across-the-board actions (buying diluted electrolytes for every hospital wards or reviewing drainage management in general surgery).

Conclusion

The committee has identified a large number of actions that would not have been identified without its creation. It accelerates the hospital capacity in identifying improvements.

The Nurses Committee was also permitted to discuss with operative nurses everyday issues and to involve them to reflect on how we can actually make improvements.

The committee also enhanced a positive culture of safety involving operators coming from areas with a low culture of safety.

Two continents, two emergency departments: both crowded?

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Background

Emergency department (ED) crowding is associated with delays in treatment, diminished quality of care, and increased inpatient mortality. The causes, consequences, and solutions for ED crowding have been extensively described in hospitals in the USA, Canada, Australia and Europe. However, the problem is not limited to high-income countries: ED crowding is also an issue in lower middle-income countries. Although no comparison has been made between crowding issues in high-income versus lower middle-income countries, fewer resources may result in more severe crowding in lower middle-income

countries. In this study, patient flow and staff perceptions of crowding were assessed in Pakistan (Aga Khan University Hospital (AKUH)) and in the Netherlands (Haaglanden Medical Centre Westeinde (HMCW)). Identifying key issues and bottlenecks affecting ED patient flow may provide insight into promising solutions.

Methods

An IRB-approved mixed-methods study using a sequential explanatory design was conducted at two urban level 1 trauma centres EDs. A 1-year retrospective cohort study was performed, comparing patients' conditions (including triage acuity level and final disposition) and crowding measures (including length of stay). Differences and similarities between the hospitals were assessed with Mann Whitney U tests and Chi-square tests. Statistical significance was set at $P < 0.05$. For the qualitative part, three sources for evidence were used: face-to-face semi-structured interviews, non-participant observation, and document review. Inductive content analysis was used to analyze the transcripts of the interviews, the observation notes and the document review notes. Member-checking was used to verify the accuracy and validity of the findings.

Outcome

At AKUH 58,839 (160 visits/day) and at HMCW 50,802 visits (140 visits/day) were registered. Length of stay at AKUH was significantly longer than at HMCW (279 min (IQR 357) vs. 100 min (IQR 152)). Length of stay exceeded 6 hours for 37.9% of the patients at AKUH vs. 3.3% of the patients at HMCW ($P < 0.001$). Almost 17% of the patients at the AKUH ED were assigned acuity level 1, while only 1% of the patients at the HMCW ED were assigned acuity level 1. There were higher admission percentages (35% vs. 21%, $P < 0.001$) and higher mortality rates (1.4% vs. 0.1%, $P < 0.001$) at AKUH. In short, there were major differences in patient acuities, admission and mortality rates, indicating a sicker population at AKUH. However, respondents from both departments experienced hampered patient flow on a daily basis, and perceived similar causes for crowding: increased patients' complexity, long treatment times, and poor availability of inpatient beds.

Conclusion

At the two EDs with different patient populations and different working strategies in two different countries, nurses and EPs experience bottlenecks in patient flow on a daily basis. Despite differences between the hospitals in

environment, demographics, and health care organization, the causes of this hampered patient flow appear to be similar.

Solutions to mitigate crowding should be tailored to the specific ED and surrounding hospital, although improving the outflow of patients will improve patient flow in both EDs.

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MYANMAR EARLY WARNING SCORE (MEWS) The Introduction of a Standardised Approach to Vital Sign Monitoring at New Yangon General Hospital in Myanmar

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Background

The Myanmar Early Warning Score (MEWS) was introduced at New Yangon General Hospital (NYGH) in Myanmar as part of a Quality Improvement (QI) project aimed at improving the early management of acute kidney injury. While scoping for the QI project, we found bedside observation recording at NYGH to be fragmented and inconsistent.

Our study aims to pilot the introduction of a standardised 'track and trigger' early warning score for the recording of bedside observations at NYGH in Yangon, Myanmar.

Methods

Our initial audit revealed that five different observation charts were in use, with multiple charts used for 80% of patients. We noted many missing observations (23% in our survey) and inconsistency in responsibility for vital sign recording. Finally, we discovered variation in awareness of 'normal' ranges for vital signs. Our results were shared with the NYGH team as our rationale for change.

In the UK, the Royal College of Physicians has led development of the National Early Warning Score (NEWS), which standardises vital sign charting. The NEWS also uses a scoring system to facilitate a physiological 'track and trigger' warning system, which is novel to Myanmar.

Our strategy involved teaching sessions in Burmese followed by launching our first version of the NEWS chart in the six-bedded female high dependency unit. Repeated cycles of design modification supported by focus groups and questionnaires, led to the creation of the new Myanmar Early Warning Score (MEWS) chart.

Outcome

Efficiency:

In the short term, we demonstrated successful recording of all six vital signs on a NEWS chart for increasing numbers of beds with approximately 100 patients exposed to date. We also demonstrated increased awareness among staff of the significance of abnormal vital signs. We have delivered teaching to a total of 100 doctors and nurses and noted improvements in levels of knowledge around abnormal vital signs.

Effectiveness (long-term following hospital wide roll-out):

We do not have longer term data, however anticipate from elsewhere that successful introduction of MEWS should lead to patient outcome benefits. This is challenging data to collect in Myanmar, however we hope to investigate length of stay data as a patient outcome surrogate.

Conclusion

We have successfully introduced the use of a 'track and trigger' vital signs chart at NYGH in Myanmar. Having modified the chart in response to local feedback we have shown that introduction of MEWS has eliminated much of the variation in vital sign recording and reduced the number of missed observations.

In our opinion, MEWS modified for Myanmar (and tropical climates) facilitates a standardised approach to vital signs and acts as a physiological 'track and trigger' warning system. Adoption of MEWS should improve efficiency in bedside observations with potential benefit for patient outcomes and should facilitate further QI work in Myanmar's hospitals. Finally, we have demonstrated that a small scale QI approach supported by multi-disciplinary education and the use of social media can change established practice at the individual ward level without additional resources.

A framework for supporting new ways of working between AHP & 3rd Sector Partners to promote Health & Social Care Integration in Scotland.

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Background

The integration of Health and Social Care in Scotland has created exciting opportunities for our Allied Health Professionals whilst concurrently presenting challenges as we aim to provide safe, quality and person centred services to the local populations amidst this period of structural change and financial challenges.

North Ayrshire is home to some people living in the 15 % most deprived data zones in Scotland with:

- the level of employment deprivation being greater than Scotland as a whole
- 25% of children living in poverty
- a reduction of working age people alongside a predicted 89% increase in the over 75 population, by 2037.

These demographics contribute to poor health outcomes and add pressure on already stretched statutory health and social care services. National strategy emphasise that statutory bodies and Third Sector Organisations should work cohesively.

Despite this the co-design of health and social care solutions is not routine.

Methods

Through the co design of services, the aim is to support early intervention and self-management by establishing multiagency community based improvement projects. Individual systems are complex and difficult to navigate; consequently the integration of multiple systems has the potential to create further chaos and confusion. As such observing our multiple systems, we developed a collaborative framework- Exploring New Ways of Working and created a space that aimed to:

- *Support and co- design new ways of working across health, social care and the third sector to improve health and wellbeing outcomes.
- *Identify and progress local multiagency projects that support local strategy.
- *Increase awareness of local and national resources that support health and wellbeing.
- *Increase awareness of the Health and Social Care Alliance Scotland (the ALLIANCE), the self management resources and support it provides.

This framework incorporate Quality Improvement and Appreciative Inquiry methodologies

Outcome

As a result of the Exploring New Ways of Working Framework session, the participants reported;

- 50% increase in those having a sound understanding of the work undertaken by AHPs and 3rd sector organisations within their partnership
- 45% increase in those aware of local and national resources to support health and wellbeing
- 30% increase in those confident to use a self management approach in their work

- Crucially three local collaborative improvement projects were identified and are currently being progressed with support of local QI teams:
 - Promoting activity in Kilwinning via an info graphic illustrating cross sector opportunities available to the local population.
 - Supporting the transition into the community through increasing engagement in collaborative community based activities for in patients of Woodland View
 - A collaborative community approach to intergenerational early intervention and prevention

Conclusion

Additionally there were unintended positive outcomes that emerged: Community capacity building, Shared Leadership, and Exploring New Ways of Working has been recognised as a flexible model that supports transformational change within partnerships.

Our key learning points to date include:

- People involved in the systems are central to identifying, developing and progressing successful and sustainable improvements
- Everyone involved in the improvement process is an equal partner
- Ongoing committed local leadership and support is essential for continued collaboration and sustainable improvement across the sectors.

Our planned next steps for spread and scale include monitoring the outputs from the local North Ayrshire improvement projects and to take on board feedback and lessons learned from the evaluation of the New Ways of Working session within North Ayrshire Health and Social Care Partnership, further sessions are planned for Dumfries and Galloway and South Lanarkshire.

Secure Electronic communication between GP en nurse

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Background

In Zutphen, a region of 115.000 inhabitants, the 57 general practice (GP) doctors work together in a cooperation, called HRZu (huisartsen regio Zutphen). These 57 GP doctors take care for their own patients during office-hours; the care at home is delivered by district/ community nurses. The District teams of nurses are available across the region and are more neighbourhood-centred than the GP doctor. The District nurses work in several organisations; four of these organisations took part in this study.

Communication between the GP and the different district nurses became a problem when each of the organisations of district nurses introduced their own electronic patient records. Up to that point most of the communication was done on paper at patients' home, or by using unsecure WhatsApp and email communication. Secure communication between GP's and district nurses is a professional standard and in the interest of patient and health workers.

Methods

The chosen ICT solutions for communication are different in practise; structured- (end-to-end), unstructured (all-channel) - and in network (wheel) communication network.

A kick-off meeting was planned to map out the communication process. The Lean method was used to address the bottle-necks in the communication process. Three starting points of communication were analysed in a Lean Brown paper sessions; a question of the patient/caregiver, a question of the district nurse and a ask for request of the doctor. After that A3's were made. An A3 is a structured problem solving and continuous improvement approach on a single piece of paper. It is a Systematic Problem Solving method process based on the principles of Edward Deming's PDSA (Plan-Do-Study-Act).

Outcome

The effects of changes are improvements in the partnership between the GP and the district nurse. There is a better understanding between professionals in the day to day business. The communication is more intensive, not necessarily through the used ICT tool. There is better accessibility, clearer handling of orders (GP-district nurse and district nurse-GP), less double questions, fewer emailthread.

Conclusion

The project has made the bottlenecks in communication clear. This has had led to better working arrangements between district/community nurses and general practitioners, what and how to communicate.

The most important conclusion is that mapping out the communication chain/ proces together, regardless of the applied techniques, can already lead to a lot of profit.

A nursing care intensity model

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Background

The improvement project was conducted at Medisch Spectrum Twente (MST), a top clinical hospital in the Netherlands; all the clinical wards are involved.

When scheduling patients in our hospital the main focus used to be on available beds. Also nurse staffing was done based on nurse – patient ratio, without taking patient characteristics into account.

Nurses complained that the workload was too high and there was no adequate nurse staffing in order to achieve safe and high-quality patient care. Some wards developed their own 'nursing care intensity'- model.

Methods

After a literature study the Nurse Advisory Board (VAR) advised the board of directors to further develop and implement the model already used by some wards, and to harmonise this model so it would be a uniform nursing care intensity model hospital wide.

From Oct '16 the nursing care intensity model was developed and refined with the input of nurses from all wards. The model is used to assess the nursing care intensity on an operational online level, so it is used several times a day for each patient. Therefore the model needs to be practical, unambiguously and objective so the scores on different wards are comparable and everybody speaks the same language.

Since July '17 most wards are using the model to categorise their patients, gain insight in the care intensity and allocate patient to the available nurses for that shift. Since Oct '17 the data from all wards are used in daily meetings about bed capacity and the allocation of patients to different wards.

Outcome

Wards keep track of the scores of the nursing care intensity model in relation to the data about staffing, beds, admissions and discharges in an excelsheet. This information shows how much staff you need on an operational online level, but also provides valuable data that can be used as input for staffing on a tactical level.

The model helps nurses to communicate effectively and objectively. It leads to a more proportionate distribution of patient care between nurses and between wards and it gives insight to where temporary help is needed or can be given. Sharing and discussing the scores leads to a better collaboration, better culture and less use of extra nursing staff. Nurses and team leaders are enthusiastic about using the model, because they developed it themselves the readiness to make use of it is high.

In March 2018 the model is incorporated in the electronic patients file , so total ward scores are visible for planning coordinators and (night and weekend-)hospital managers.

Conclusion

The use of a practical nursing care intensity model leads to a more proportionate distribution of patient care and improves the quality of care. Patients, nurses and management benefit.

We are seeking collaboration with the nearby university to further assess the validity and reliability of the nursing care intensity model.

Can we improve the safety of antimicrobials in patients with penicillin allergy?

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Background

With growing concerns of antimicrobial resistance, ensuring safe, optimal and effective use of antibiotics is a priority for health systems worldwide. Reports to the National Reporting and Learning System (NRLS) highlight an association between harm and allergy status, with nearly a third of all medication incident reports involving patients with known, documented allergy. The purpose of this research was to gain an overview of the scale of harm due to medication errors in patients with penicillin allergies.

Methods

Retrospective review and thematic analysis of patient safety incident reports to the NRLS over a 3 year period: 2014 to 2016 inclusive. Data was extracted from the national system using key search terms for allergy and allergy-like reactions.

Outcome

Preliminary analysis of a total of 21754 medication related incidents showed that approximately half were related to anti-infectives. In nearly 60% of the incidents involving anti-infectives, the patient was known to be allergic to the medicine involved prior the actions leading to the incident being reported, with nearly equal numbers at prescribing and administration stages. Thematic review of the incidents reported as being of moderate or severe harm highlighted six themes: night or weekend effect, incomplete documentation, failure to act after a new reaction, failure to recognise or act on visual indicators, and reliance on patients as the only source of information.

Conclusion

There is considerable risk of medication related harm to patients with a reported penicillin allergy, but much of this is preventable with potential for improvement.

Impact of staff awareness on attitudes and emotions of relatives of ICU patients

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Background

In the present study we focused on the satisfaction of the patients' relatives regarding the quality of provided care. Quality of provided care on Intensive Care Unit (ICU) is a key performance indicator (KPI) of the "Patients and Society" domain of the quality improvement concept (QIC) of the department of cardiology of the University of Frankfurt Medical Centre where the present work was conducted. The QIC main domains are: Patients and society, staff (education & development), quality & safety and financial targets.

There is an increasing interest regarding evaluation of attitudes of the ICU patients' relatives who themselves experience increased emotional distress and have specific needs. Moreover, next of kin may play a pivotal role in the assessment of the quality of provided ICU care. Therefore we investigated factors that may be important for patients' relatives' satisfaction using a standardized questionnaire.

Methods

Assessment was performed using a closed question set with predefined answer categories (1=very good to 6=inadequate) and a Likert-scale that measures acceptance or denial of these attitudes. Additionally, it is possible to make suggestions and wishes. Each patient's relative completed the questionnaire. Survey results were discussed with nursing and medical staff in internal Plan-Do-Study-Act meetings. The following decisions were made: establishment of a separate room for confidential meetings with the patients' relatives, possibility for sitting places nearby the patient, prolonged visiting times and longer pastoral care.

Further, a guideline for staff members was coined aiming at raising their awareness about verbal and nonverbal interaction with the patients' relatives. After a 9 months' period a second survey was performed. Numerical values were compared using the non-parametric Wilcoxon's test. Correlations between parameters were done using the non-parametric Spearman's test.

Outcome

It turned out that a very high degree of relatives' satisfaction was already documented at the first survey. A very similar high level of satisfaction persisted at the second survey. Additionally, a trend towards improvement of empathy and time spent to communication from the part of medical staff was noted. These differences were not statistically significant at the 0.01-level. Notably, older relatives were much more satisfied regarding medical staff attitudes than younger relatives were ($p = 0.025$).

Conclusion

We now have measurable data on relatives' satisfaction to evaluate interventional processes in the future. Interaction between medical and nursing staff and their motivation to participate at the time of the first survey were less than at

the time of the second survey. Communication and cooperation between different staff groups and awareness of person-centred care is of paramount importance for implementation of QI.

Measurable data on needs and attitudes of patients' relatives are of paramount importance for the design of quality improvement interventions regarding care of ICU patients. Sensitization and increased awareness of the staff (nursing, medical, administrative, pastoral) about the specific needs and attitudes of the ICU patients' relatives.

To do or not to do: from listing low-value care to reducing it

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Background

It is known that a substantial part of healthcare, so called 'low-value care', is unlikely to benefit patients given the cost, the alternatives available and the preferences of the patient, and may even cause harm. In the past decade, a few attempts have been made to identify low-value care such as the do-not-do list, made by the NICE and the wise choices by Choosing Wisely. Dutch university medical centres have started a national programme to reduce low-value care in daily medical practice. The programme has three main goals: Identifying low-value care by listing it, building a practical knowledge base on reducing low-value care and de-adopting eight low-value care practices. In 2016, we launched eight studies in which low-value care practices, supported by convincing evidence, are de-adopted. The low-value care practices were proposed by the doctors themselves, guaranteeing the strongest possible medical leadership. Most practices are wise choices identified by Choosing Wisely.

Methods

The programme is based on the following principles:

1. Doctors, nurses and other caregivers should take the lead.
2. Patients are involved in the development and evaluation of the intervention.
3. One of the doctors presents her- or himself as the clinical leader of the theme and becomes a local clinical champion.
4. De-adoption is organised regionally, including and involving the relevant stakeholders.
5. Potential barriers, facilitators and behavioural factors of the specific context of the de-adoption should be considered while planning the de-adoption strategy.
6. The teams are financially supported to carry out the project.
7. The research groups form a mutual learning community, creating the de-adoption knowledge base.
8. The de-adoption projects evaluate their strategy extensively.
9. Projects focus on sustainable reduction by including process changes in their strategy.

Outcome

The eight studies are de-adopting the following practices:

- Inappropriate prescribing of inhaled corticosteroids for patients with COPD
- Surveillance CT scans in asymptomatic patients cured from lymphoma
- Knee arthroscopies and MRIs for orthopaedic patients older than 50 years
- Inappropriate use of intravenous and urinary catheters
- Inappropriate Vitamin D and B12 tests within general practice
- Inappropriate diagnostic testing by internal medicine doctors
- Inappropriate gastroscopies for dyspeptic patients

- Surveillance visits after treatment for low-risk basal cell carcinoma.

An evaluation study embracing all eight studies will aggregate the results, identify the elements for success, try to assess the best strategies for the de-adoption of healthcare and look at their possible cost savings. This information will be used for designing large-scale Dutch de-adoption strategies in the coming years. Results will be expected at the end of 2018.

Conclusion

The overuse of healthcare is a persistent challenge as far too much care is of little value. For years, healthcare has been making up lists of low-value care. Dutch university medical centres have recently started a national programme to reduce low-value healthcare in daily medical practice. Central to this aim will be gathering knowledge on how to turn back from providing healthcare of low-value. It will be crucial to address the social and contextual determinants which prevent doctors from changing fixed and outdated habits.

We would urge doctors to practice what they preach in order to reduce the wastage of public resources and the burden of unnecessary care to patients. We hope other countries will join us in taking this next step. De-adoption of low-value care seems a small step on paper but is a giant leap for healthcare in practice and will require overcoming many obstacles. It means moving forward from creating lists to acting and bringing these lists into practice.

Improving Resuscitation Decisions: Treatment Escalation Plans

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Background

At Medway Foundation Trust (MFT), an audit reviewing resuscitation decision-making, in 2015, revealed we had to be more decisive with our DNACPR orders. We therefore introduced Treatment Escalation Plan (TEP) forms, on the reverse side of the DNACPR form, through our Deteriorating Patient Programme in 2016.

TEPs are essential to ensure that every patient has their ceiling of care discussed and documented formally. They help prevent unnecessary cardiac arrest calls and inappropriate referrals to the high-dependency/intensive care unit (ICU). The forms should be completed by the relevant consultant within 24 hours of admission for all in-patients (except maternity/paediatrics/day-case surgeries). However, TEP forms did not come without criticism amongst staff when they were first released, including wording of the form and poor engagement.

Methods

We carried out plan-do-study-act (PDSA) cycles over a two-year period to evaluate whether TEPs had been effective at improving escalation planning and DNACPR decision-making, documentation and communication.

We analysed TEP and DNACPR forms from 100 patients per PDSA cycle (across both medical and surgical wards). We identified if there was a valid TEP/DNACPR decision and we asked staff members if they were aware of the TEP/DNACPR decision in place. We also noted patients that should have had a DNACPR decision made but had been omitted.

Our aim was to improve TEP documentation (target of 100%) by developing a revised concise form through our TEP working group of consultants. We would also engage and educate staff through walking the wards and senior clinicians championing this project.

Outcome

We revised the TEP form through extensive collaboration at committee meetings. The form is now user-friendly to make it easier for doctors to complete, reduce errors and encourage doctors to hold conversations with patients/relatives. We raised staff awareness through posters, Nursing Forums, communications campaigns and presented the work at audit/departmental/junior induction meetings.

The TEP form was found in 66% (initial) vs 83% (revised) of notes and 34% vs 56% were completed appropriately. Of those completed, 68% vs 75% of the forms were done so within 24 hours and 50% vs 88% were signed by a senior clinician. 31% vs 48% of completed forms involved discussion with patients/relatives.

There was a 9% improvement in resuscitation decision-making, since the introduction of TEPs. 100% of staff were aware of DNACPR decisions. 17% of patients were retrospectively deemed as inappropriately escalated to ICU, which a correctly documented TEP form would have helped prevent this.

Conclusion

The revised TEP form has led to a significant increase in documentation and patient/relatives discussion, encouraged a culture of safety and reduced the risk of harm. The higher completion rates and increased clarity amongst staff regarding escalation planning have helped improve patient safety outcomes and communication between all patients and staff members. TEPs also encouraged doctors to consider DNACPR decisions for patients who otherwise would not have been considered, and therefore may help reduce inappropriate referrals to ICU.

Improving resuscitation decisions is a trust-wide initiative and requires acceptance at all levels. We need to continue to increase TEP decision-making, engagement and empowering patients/families, which will improve the management of deteriorating patients and reduce inappropriate out-of-hours investigations. We have started implementing our user-friendly TEP form across other NHS organisations to develop a universal TEP form.

Older people's and family carers' experiences of caring and their perceived health status

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Background

Kalmar County has one of Sweden's oldest populations, and forecasts show that the proportion of older people will increase in the future. In response to this situation, the County Council in Kalmar has worked with a quality improvement plan and work. Collaboration between the county council, municipalities and Linnaeus University has been intensified.

The most frail older people are often in need of care and support, both from county councils and municipalities. In many cases the families take a greater responsibility for practical help, personal care and, in particular, the coordination of care. Our study examined which patient-related factors, in addition to diagnosis-related and demographic ones, can predict which patients have an increased risk of unscheduled hospital admissions. We also explored if the quality assurance work that has been taken place in recent years can handle these emerging challenges.

Methods

A survey was distributed to 600 older people, together with their family members, who had been admitted to one of the three hospitals in Kalmar County during the autumn 2016. The response rate for patients was 67% and for family members 56%. Telephone surveys were also conducted with a selection of older patients (n=20) and family carers (n=17). Patients' and their families' experiences of care and support were combined with factors such as patient diagnoses, medications and number of visits to the health care centre. Based on this, several key development areas were identified and improvement measures were proposed.

Outcome

The majority of patient respondents, and their family members, were satisfied with the hospital care received. Three main patient-related factors, in addition to diagnosis-related and demographic factors, were identified to predict which patients are at increased risk of unscheduled hospital admissions:

- Patient and family members' involvement in care.
- Information for patients and relatives.
- Timing of discharge from hospital.

Results also indicated that diagnosis-related circumstances such as the risk of malnutrition and the amount of medications, interacted with these factors.

The results revealed that many family members regularly helped an older relative. Family carers' self-assessed health was influenced by providing care, assistance and support to a close older relative. Respondent family carers felt it was

important that they were involved in decision making regarding their older relative. Only half of them considered that they had been involved in the planning.

Conclusion

Older people and their carers require more tailored information and to be more involved in care planning. We need to better identify at-risk geriatric patients and implement measures earlier. Support for family carers must be improved. Our quality assurance work appears to be on the right track as the number of unscheduled hospital readmissions slowly decrease, despite the increasing number of older people in the county. The county council and municipalities, with support from research and education staff at Linnaeus University will continue the ongoing quality development work.

Patient and partner as educators & researchers: giving and hearing voice

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Background

Interactions within prostate cancer decision-making consultations and how treatment options are presented are likely to influence treatment decisions made (Donovan et al, 2003, 2009). The NICE guidelines (2008, 2014) identify patient decision aids as a way of ensuring the opportunity of making informed decisions about care and treatment and not being unduly influenced by healthcare professionals' preferences when selecting treatment options.

Despite both of us working in medical and healthcare research, education and training, and CBMM's father undergoing treatment for prostate cancer, our first encounter with patient decision aids at all was through CBMM's work as a researcher on a prostate cancer-related research project (multi-arm, controlled intervention to provide education and training to clinicians in the use of patient-decision aids to increase informed decision-making and decrease decision regret) that started a year after DM's treatment for prostate cancer.

Methods

After his treatment, DM became a patient representative on the STAMPEDE [Systematic Therapy in Advancing or Metastatic Prostate Cancer: Evaluation of Drug Efficacy] trial where he is involved in the production of information for patients, and educational material (including videos). We both became volunteers for Prostate Cancer UK: raising public awareness and educating medical and healthcare practitioners about the patient/partner perspective.

We set out to informally find out about other prostate cancer journeys, what people were learning through having been patients/partners in the prostate cancer journey and their experience of prostate-related patient decision aids or at least what information they were provided with and the extent to which a) their understanding of information was appropriately checked by medical and healthcare professionals; b) they had the opportunity to make informed decisions; and c) they had been influenced by healthcare professional preferences.

Outcome

Few fellow travellers on the prostate cancer journey had ever encountered patient decision aids and few had known much about all available options, especially their long-term effects. Treatment regret was common. Patients/partners were more likely to have obtained information that was useful and important via organisations such as PCUK whose websites led them to interact with volunteers than from healthcare professionals. However, interaction with the voluntary sector often took place after treatment rather than before.

We want to build on our anecdotal findings and are designing a study of people who have had prostate cancer and their partners to find out about their experience of patient decision aids, their opportunity to make informed decisions, the extent to which they felt influenced by healthcare professionals' preferences in relation to their choice of treatment and the message they have for medical and healthcare professionals and the voluntary sector.

Conclusion

We anticipate that this work in progress, when completed, will help lead to a greater awareness of the need to involve patients and partners in a meaningful manner in shared decision-making and in the use of patient decision aids so that they have adequate information of all treatment options, including short-term and long-term effects, and that their understanding of information is appropriately checked by medical and/or healthcare professionals. The main message

so far is that patients and their partners need effective communication, born out of genuine interest in their wellbeing as individuals, not just as service users.

Reducing rate of blood culture contamination at King Khalid university teaching hospital, Riyadh, Saudi Arabia

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Background

Blood culture is an important laboratory test in determine bacteremia in Fungemia in patient blood. Frequent blood culture contamination leads to unnecessary treatment, waste of laboratory resources and false positive blood culture. College of American pathologist accreditation (CAP) states that monitor blood culture contamination rate should be within average 2-3%. Based on 2015 and May 2016 data at King Khalid university hospital, it showed that we had experienced of consistent increase in Both Emergency department and Intensive care unit had the highest number of contaminant samples (5.7% and 4.6% respectively).

Methods

Microbiology initiated a multidisciplinary team to decrease the blood culture contamination rate to the level of CAP requirements or less (3% or less) over the 6 month period. We used the IHI Model for Improvement (MFI) as framework to conduct the project. We tested several changes ideas included updating the current Blood culture policy aligned with translating its content into reminder posters, auditing compliance checklist and regular feedback sent by lab staff to the concerned departments. Several PDSA cycles have been conducted to test the changes ideas and proposed solutions. All relevant data were extracted from Lab information system and analyzed and presented on run and control charts.

Outcome

A significant reduction in contamination rate in ICU reached 1.8% compared with the baseline 4.6% in 6 months, likewise similar significant reduction in contamination rate in ER reached 2.0% compared with baseline 5.7 % in 6 months indicating that there noticeable reduction in rate of blood culture contamination as a results of the project changes ideas implementation, which met and exceeded the CAP benchmark of 2-3%.

Conclusion

Standardizing work process and providing Just-In-Time training as well as regular auditing performance and feedback are evidence-based effective strategies in reducing the Blood culture contamination in a tertiary teaching hospital.

Introducing checklist in a delivery ward

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Background

Due to new selection criteria both regional and National we have had an increasing number of high-risk pregnancies referred to our Hospital. Evaluation of own practice and cases reported to the National Health Trust showed that we needed to improve selection on admission to the delivery ward, follow up risk assessment during delivery and collaboration and communication between midwives and doctors.

Methods

We introduced a checklist in the delivery ward using a model from Denmark. All patients admitted to the ward had a "check-in" by midwives and selection was done. During active delivery, the checklist was used to follow up fetal heart assessment, labour progression, the need to call for an obstetrician or new risk factors during delivery. Time-out every four hours, or if new risk factors appeared. We also introduced whiteboards in the delivery room to visualize common situational awareness for both patients and employees.

Outcome

We managed to introduce checklist in the ward during the study period of 14 weeks. Selection on admission improved during the period and has reached a median of approximately 95 % after the study period was over. Questback to all staff showed that 50 % felt that the collaboration and communication between midwives and doctors had improved after introduction of the checklist. Among staff 90 % knew why the project was initiated and what the aim was.

Conclusion

We managed to introduce checklist in the delivery ward. 48 weeks after the study period was over we still manage to use checklist in 80-100 % of deliveries in the ward. Selection on admission to the ward has improved and also communication and collaboration between midwives and doctors has improved.

Implementation of personalized care plans – A success story

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Background

Target setting, motivating discussion, empowerment and shared decision making are essential in personalized care planning. Personalized care plan is a document created by the patient and their healthcare provider. The patient gets a copy of the care plan to facilitate self-care. Such an approach has been shown to be associated with better self-care behaviour in T2D patients, resulting in improvements in glucose and blood pressure control. However, personalized care plans are not commonly implemented in clinical practice.

Our aim was to implement the use of a personalized care plan as a practical tool in the treatment type 2 diabetes (T2D) patients in primary care at Rovaniemi Health Center, Finland.

Methods

In 2014 we devised a program to introduce health and care plans for as many T2D patients in the Rovaniemi area as possible. Prior to starting the program, we removed as far as possible the barriers to implementation: care providers were trained in care plan implementation, the template for the personalized care plan and its phraseology were established in the patient record system, 60 minutes time resource (for both GPs' and nurses' consultation visits) to draw up the care plan, patients were asked to fill in a self-care form prior to the visit, and an invitation system for care plan visits.

We implemented the initiative using the breakthrough method. This comprised a two-month period of weekly follow-up visits, during which repeated encouragement was given to implement plans, and the numbers of written care plans were reported to GPs and nurses. A contest was also incorporated into the breakthrough phase, with a prize for the team implementing the most personalized care plans.

Outcome

In 2015, the year after implementation of our initiative, professionals wrote 1,679 personalized care plans. There are approximately 3,176 T2D patients in Rovaniemi, therefore 53% of them received a personalized care plan year after implementation. Altogether 5,732 new or updated personalized care plans were drawn up during the years 2015–2017 at Rovaniemi Health Center.

Conclusion

It is possible to increase the use of personalized care plans in primary care by clearing the barriers to their use and by systematic employment of the breakthrough method.

Improving the Management of Fever and Suspected Chemotherapy Induced Neutropenia in the Emergency Department

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Background

Chemotherapy induced febrile neutropenia is a major cause of morbidity and mortality in cancer patients especially if not treated promptly. As we were facing considerable delays in the management of patients with chemotherapy induced febrile neutropenia in the Emergency Department (ED), we initiated an improvement project aiming at “Door to antibiotic time” of 60 minutes for all patients with fever and suspected chemotherapy induced neutropenia.

Methods

A multidisciplinary team was assembled to achieve the set goal. By mapping the existing process and implementing various improvement tools, the following changes have been implemented:

- Improving the triaging process
- Creating an electronic “Chemotherapy alert caution”
- Developing evidence-based order sets for physicians
- Utilizing the hot line by nurses to call the pharmacy to expedite the process of preparation.
- Outcome and process measures were collected weekly: analyzed and discussed thoroughly by the team.
- Run charts were used to monitor the progress.

Outcome

After going through 10 plan-do-study-act (PDSA) cycles, all process measures improved and ultimately our main measure, the “Door to antibiotic time” improved from 450 minutes to 49 min.

Conclusion

The project was successful and it achieved its goal in 6 months as a result of adherence to sound methodological approach, the commitment of the multidisciplinary team members and the support from the institute’s leadership. The team is focusing now on sustainability and spread of this improvement project to other facilities.

Improving Awareness of Local Anaesthetic Systemic Toxicity in Maternity Care

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Background

This QI project was carried out in the maternity unit of Queen Elizabeth the Queen Mother Hospital, Margate, a UK District General Hospital. The project involved a multi-disciplinary team comprising anaesthetists, obstetricians, midwives, and maternity care assistants.

We implemented a tailored inter-professional educational programme designed to prevent local anaesthetic systemic toxicity (LAST) occurring by raising staff awareness and understanding.

Although widely used in maternity care (for example in epidural blocks), the risks associated with local anaesthetic (LA) agents are commonly overlooked. The most serious avoidable risk associated with LA use is systemic toxicity. LAST incidence in maternity settings is known to be underestimated due to under-recognition and reporting. It represents a considerable patient safety issue (maternal and neonatal mortality and morbidity). Although national guidelines were endorsed, they had not become routinely used in maternity care.

Methods

LAST awareness was measured using a standardised questionnaire. Design was informed by i) audit data from another trust site, ii) global LAST awareness in the literature, & iii) unstructured interviews with staff.

We spoke directly with staff of all disciplines before collecting baseline data. We also explored communication channels specific to these groups to further the project's reach. Baseline findings were relayed via these channels.

We identified poor LAST awareness across all staff disciplines, confirming scope for substantial improvement with educational intervention. A change in perception of LAST was required to promote cross-disciplinary responsibility for its active prevention.

Distinct educational tools were created for each of 3 PDSA cycles: video presentation covering 4 domains (LA prescribing, clinical recognition, immediate management, and antidote details), educational poster, lanyard cards. The awareness questionnaire was re-implemented after each intervention.

Outcome

PDSA1 improved average LAST awareness score by 69.8% from baseline. PDSA2 improved scores a further 30.3%, or 130.7% from baseline. Final results at PDSA3 demonstrated an overall improvement of 109.3% from baseline by the end of February 2017.

Substantial improvements in awareness of LAST were generated and maintained over a four-month period. Senior midwives and obstetricians have already incorporated these LAST educational resources into induction training

programmes, demonstrating sustainability. The project was a shortlisted finalist in the UK HSJ 2017 National Patient Safety Awards, in recognition of its QI success and promotion of inter-professional learning.

Conclusion

LAST is not well understood, even among specialist care-providers. This important preventable cause of morbidity and mortality should be considered across NHS services.

Tailoring educational tools specifically to the needs of their recipients, and empowering staff by direct involvement were key to the project's success. This project has highlighted the need for greater focus on cross-disciplinary education and the importance shared responsibility in optimising patient safety. We have also learned how to employ QI methodology, as introduced to us by the IHI.

We have demonstrated that improvements are possible in this way, even within a short time-frame and using simple low-cost interventions. Tools used could be easily adapted for wider NHS maternity services or other areas of care.

By promoting inter-professional learning, a culture of shared responsibility for women receiving local anaesthetics has been established. Effective teamwork promotes superior patient care.

Screening for Diabetes Mellitus and Hyperlipidemia for Patients on Atypical Antipsychotics

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Background

Tan Tock Seng Hospital is one of Singapore's largest hospitals and the Department of Psychological Medicine sees about 16000 patients at its specialist clinic in a year. Approximately 100 patients are prescribed atypical antipsychotics (AA) in a week.

AA are significantly associated with hyperlipidemia & abnormal glucose levels. Annual testing rates among persistent users of second-generation antipsychotic medications were 38% for glucose and 23% for lipids in the US. FDA warnings and ADA/APA recommendations highlight the need for metabolic testing for patients treated with second-generation antipsychotics.

Our aim was to improve metabolic screening for outpatients on AA therapy using the Clinical Practice Improvement Programme (CPIP) and the Plan-Do-Study-Act (PDSA) improvement process.

Our project team included senior and junior doctors, clinic assistants, pharmacist, clinic nurse, and operations personnel.

Methods

The baseline rates of completed annual testing of lipids and glucose among users of AA for patients in our psychiatry clinic was 60.9%. Our target was 80%.

Factors contributing to the low rates of annual testing of lipids/glucose were analyzed through the development of a process map, a Pareto chart and a fishbone diagram created by a multi-disciplinary focus group, and a prioritization matrix. The PDSA methodology was employed with the goal to improve the monitoring of blood lipid and glucose levels.

Using QI tools, the focus group developed 6 interventions:

- -Note stuck on computer screen
- -Poster on wall (for doctors)
- -Clinic assistant to screen through the patient list the day before the consult to highlight the names of the patients on AA, real-time double checking with doctor during the consult if blood monitoring is needed, and to include into the computer system as a comment.
- -Email reminder to doctors
- -Individual letters to doctors
- -Reminder at roll call of clinic assistants

Outcome

Post interventions showed an increasing trend from 60.9% to 79% and even up to 86% of completed annual testing of lipids and glucose among users of AA for patients in our psychiatry clinic.

Conclusion

We learnt the use of the various QI tools, that stakeholders buy-in was important, the importance of real time audits and that we had to persist with interventions and get feedback from the ground.

Impact on patients were as follows:

- -Better diabetes/cholesterol health screening
- -Discussing physical health enhances holistic care
- -A new defined work flow for patients on second-generation antipsychotics

Our next goal is to achieve an annual testing rate 90% for lipids and glucose among persistent users of second-generation antipsychotic medications for our outpatients in our psychiatry clinic and to spread our interventions to our other clinics.

Patient safety reporting in a tertiary Paediatric Surgical Centre – are we keeping patients safer?

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Background

The Evelina London Children's Hospital is a world-class tertiary children's hospital which is part of one of Guys & St Thomas' NHS Foundation Trust, a leading teaching hospital in the UK. The hospital has 2.4 million patient contacts per year, including more than 800,000 in community services, 103,000 day-case patients, 88,000 inpatients and 1.2 million outpatients with more than 6,659 babies delivered every year.

The aim of this study was to review all clinical incidents from our tertiary paediatric surgical unit over a 2 year period and to identify any trends in medication errors following implementation of electronic prescribing system for medications.

Methods

Contemporaneously recorded clinical incidents via Datix® software reporting system were reviewed retrospectively. All clinical incidents reported from June 2014 to 2016 at the children's hospital were reviewed following ethical approval. The study period was divided into pre- and post launch of electronic medical prescribing.

Overall incidents and medication specific incidents were then compared across time periods. Statistical analysis was by Fisher's exact ($p < .05$ significant).

Outcome

The majority (99%) of reported clinical incidents in both time periods were either 'Low harm' or 'No harm'. Medication-related incidents increased from 20% ($n=33$) to 30% ($n=52$) pre and post electronic prescribing introduction respectively.

There was no significant difference in the types of medication errors which were reported pre and post electronic medical prescribing.

A culture of reporting and learning from errors is embedded in our institution, therefore, we expected to find low levels of serious harm. However, the 'low harm' and 'no harm' incidents have value in helping us to understand our systems and how to make them even safer.

Conclusion

Based on our findings we conclude that the observed increase in medication related incidents may have been due to the learning curve of using the software in the initial stages as staff became more familiar with it. In addition, the increased ease of recording errors electronically compared with manual reporting may be further reason for initial increase in reported medication incidents.

ACTIVE and HEALTHY AGEING – IMPLEMENTING falls prevention and bone health INTEGRATED CARE AT SCALE

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Background

AFFINITY (Activating Falls and Fracture prevention In Ireland Together) is a national population health improvement project, implementing a national strategy on the prevention of harmful falls and fractures in older persons (approx 5M pop. 13.3% 65 years +). AFFINITY is also a commitment within a pan European programme (EIP AHA) that aims to increase the average healthy lifespan of persons by 2 years by 2020. AFFINITY is jointly co-ordinated by the national service provider (HSE) and the indemnifier of publicly-funded health and social care (SCA).

Methods

AFFINITY was re launched in 2017 (previously started 2012), to be phased over a five year period (2018-2023) using performance metrics relevant to service user outcomes. Implementation frameworks for hospital, residential and community care will be co-designed to include: promotion of falls prevention activities for well older persons, building community capacity to identify and respond to those at most risk of harmful falls, developing an integrated care pathway (ICP) for those who have fallen and those at risk, and life long optimisation of bone health and Fracture Liaison Services.

Outcome

A national measure and monitor framework needs further development. Full implementation means that older persons will: proactively co produce their own health and well being (increased QLY); have access to quality ICP according to need (increased access and quality care); have less harmful falls and sequelae (reduced incidence of harmful falls); enjoy safer, age friendly environments and improved quality of life (increased technological/environmental supports and QLY).

Conclusion

Significant learnings have been possible from international evidence and lessons shared. Implementation at scale to deliver high quality, accessible, equitable falls prevention and bone health services requires robust governance, work practice changes, skilled personnel, targetted resources and change management supports. AFFINITY, enabled by the European programme and other international sharings will be an exemplar of a co-ordinated, sustainable and effective model of care for older persons, both proactively and reactively. The reforms happening at national level will resonate with other countries in their desire for more efficient and effective quality care, optimising the benefits of digital and silver economies.

Improving Preprocedure Communication: Checklist Performance Before and After Audio/Video Recording, Random Audits and Detailed Feedback

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Background

The preprocedure checklist or “time-out” has been widely promoted as a patient safety tool. We previously reported the success of an improvement strategy that included audio/video recording equipment to capture data, random audits to assess team performance issues, change management and feedback. We wished to assess whether the improvements previously achieved by a small pediatric interventional radiology team could be sustained. We also tested whether this strategy of data capture, performance assessment, change management and feedback would lead to improvement with a much larger team.

Methods

Checklists tailored to issues encountered during image-guided procedures were developed. Audio/video recording systems were installed in procedure rooms. Scoring rubrics were developed that included the criteria needed to receive credit for each checklist item. A sampling and audit process was used to review approximately 2% of the recordings. Time-outs were scored item by item. Overall scores were tracked and item analysis provided insight into problematic checklist items. Feedback on overall scores, individual items and the criteria needed to receive credit for each item were provided to frontline teams. Intra- and interobserver variability in scoring was assessed by repeat scoring of the recorded procedures. Variable scoring was addressed by developing shared mental models of what constitutes the desired behavior for each checklist item. In addition, a portion of the time-outs was scored in real-time and the results compared to scores obtained from audio/video review.

Outcome

Audit data indicated that that time-out performance for the pediatric interventional radiology team started in the 60-70% range but improved rapidly to >95% with feedback. The improvements have been sustained for more than five years despite moderate personnel turnover. Initially, the scores for the adult interventional radiology were also in the 60-70% range but improved with feedback and targeted improvement efforts. Average monthly scores have increased to between 94-97% and have remained at this level despite higher levels of employee turnover. Item analysis indicates that the most variable items for both groups is "suspend all activities". Results of the live reviews demonstrated a tendency to overestimate compliance with the “suspend all activities” item.

Conclusion

The combination of checklists, data capture using audio/video recording units, rigorous performance assessment, change management and feedback can lead to substantial and sustained improvement in team performance with the preprocedure time-out. While installing audio/video recording units creates concerns about how the data might be used, these recordings provide a robust data set for improvement projects. Recording procedures provide

opportunities to capture performance on a 24/7 basis, conduct reviews when time allows and address unnecessary variation in both performance and scoring.

An Organisational Approach to Strengthening Tumour Programs at Different Levels of Maturity

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Background

The subjects of this study are 12 tumour programs in Western Sydney Local Health District. While multidisciplinary team meetings (MDMs) are well-established in many institutions, there is wide variation in how they function and in their role in decision-making. The tumour program strengthening initiative (TPSI) aimed to adopt an innovative methodology to assess multidisciplinary team (MDT) performance and use this to engage them in performance improvement strategies as well as evaluate and monitor program improvement at both the individual tumour program and institutional level.

Methods

The study protocol comprised two parts. Firstly, a customised survey was used to evaluate MDM members' perceptions of their team's performance before the implementation of the TPSI to be completed annually on an ongoing basis. Secondly, a draft tumour program maturity matrix was developed using a review of the literature and qualitative data on clinician's perceptions of the key drivers of optimal tumour program performance. The maturity matrix was designed as a self-assessment tool showing five levels of maturity across 20 domains with five indicating the highest level of performance. The draft matrix was further refined through stakeholder consultation. Each MDM used the tumour program maturity matrix to collectively assess their team's performance and identify priority areas for improvement. MDTs were then supported with improvement strategies to reach higher levels of maturity.

Outcome

The first survey and feedback cycle has been completed. 180 member surveys from 17 MDMs were completed. 12 of these MDMs agreed to participate in the ongoing program the second cycle is currently underway. This provided useful insights into team members' perceptions of performance for each MDM and for the organisation as a whole. Even at this early stage the second survey is showing interesting and positive outcome. Several teams have already made changes as a result of the feedback. All teams have also completed the matrix. Most teams rated themselves at between levels 1 and 2 for most items. While feedback has been positive and the findings useful, it was noted that the wording and the mode of delivery of the matrix could be improved.

Conclusion

This study fills a gap in the literature by describing a means of improving performance from an organisational perspective using both a survey instrument and a maturity matrix. It differs from others in two important ways. First, it targets all tumour streams within the organisation, whatever their level of maturity; and second, it provides a framework by which MDMs can determine areas for improvement, while allowing considerable flexibility in the activities each team chooses to address.

The MDM survey and maturity matrix are crucial components of the TPSI. They provide an excellent means not only for teams to identify their strengths and weaknesses but also for management to review its performance against

standardised criteria and to identify priority areas for improvement and further support. The lessons learnt from the first survey and matrix are being addressed in the second round.

Facilitation towards health literacy contribute to frail prevention among community-living older adults: An Interprofessional Work based project

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Background

We utilized the networks which have been established by research members in this study. In addition to the networks, we newly recruited potential participants according to the protocol, approved by a Institutional Review Board (IRB). The selection of measurements was succeeded because of discussion from multi-viewpoints in Interprofessional work (IPW). The profession was a doctor, a pharmacist, nurses, physical therapists, an occupational therapist, a clinical laboratory technician. Establishing strategies for frail prevention, aiming at extension of healthy life expectancy, is urgently required in aged society. The Japanese version of phenotype-based Cardiovascular Health Study frailty scale (J-CHS) has been used, although the definition of frail has not been reached a consensus. Community-based practices are administered through Inter-Professional Work (IPW), thus, this pilot study explored the potential elements which guide participants towards frail prevention through IPW.

Methods

Among a total of 81 community-living older participants, 78 (96.3%) were women. Their mean age was 70.7 (SD 6.5) years. The following measurements were used: J-CHS, the basic checklist of life function evaluation (the Basic Checklist: established by Ministry of Health, Labor and Welfare, Japan), the Japanese version of Mini-Mental State Examination (MMSE-J), the Japanese version of Short Form 8 item health survey questionnaire (SF-8-JoR), and the simplified Japanese version of the WHO-Five Well-being Index (S-WHO-5-J). The J-CHS contains the following 5 domains: weight, fatigue, grip-power, the Timed Up and Go test, exercise habits. The Basic Checklist contains 25 questions, grouped into the following 5 domains: Instrumental Activities of Daily Living, Mobility, Nutrition and Mouth function, Social Participation, and Mental Health. The baseline data were collected individually according to the participants preferred locations between February and July in 2017.

Outcome

Eight participants (9.9%) were considered to be frail, 24 participants (29.6%) were to be pre-frail, and 49 participants (60.5%) were to be healthily. The mean scores in standardized measurements were as follows: 28.4 (SD 1.9) in the MMSE-J, 47.9 (SD 7.1) in the physical domain and 50.6 (SD 6.0) in the psychological domain in the SF-8-JoR, and 17.7 (SD 4.3) in the S-WHO-5-J. The following categories were extracted in the qualitative data analysis: Participants 'did not realize potential health issues'. They 'were anxious before obtaining the results'. They understood the change 'in their physical functions and appearance' and 'in their psychological and mental functions' according to ageing. The 'reviewing and reflecting one's lifestyle' let them 'to be motivated to a healthy lifestyle,' thus, they would like to 'try hard to improve one's health literacy,' suggesting their realization towards frail.

Conclusion

The participants' realization towards frail was brought by feedback sessions based on the results according to the

selected measurements, suggesting the importance of providing the results as the educational material. The risk to be frail is getting bigger due to the rapid growth of an ageing population, thus, an efficient strategic intervention has to be identified.

To Improve Dietitian Referral Rate For Newly Diagnosed Type 2 Diabetes Mellitus Patients In Hougang Polyclinic, Singapore

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Background

National Healthcare Group Polyclinics is one of Singapore's major primary care facilities with more than 3 million patient attendances a year. This improvement project was done at Hougang Polyclinic, one of the 6 polyclinics owned by the Group. The work is led by a dietitian, co-led by a medical doctor and supported by other clinical and operational staff.

The Singapore National Health Survey 2010 revealed that 11.3% of Singapore residents aged 18-69 years were affected by diabetes, and 1 in 3 among them were poorly controlled. Despite evidence of good clinical outcomes for early dietary intervention in patients with newly diagnosed diabetes, such patients were not frequently referred to the dietitian in Hougang Polyclinic. From 1st January to 31st March 2017, a total of 104 patients in the Hougang Polyclinic were newly diagnosed with Type 2 diabetes Mellitus. Only 12 patients (11%) were referred to a dietitian.

Methods

Problem 1: Lack of awareness among Care Managers (CMs) and doctors on the role of dietitians.

Intervention: The dietitian met with CMs and doctors during luncheon teaching session to explain the importance of early nutrition education for newly diagnosed DM patients. (2 April '17)

Problem 2: No workflow for CMs to refer patients to dietitian

Intervention: A reminder slip was attached to patients' lab result as a visual cue to encourage CMs to refer newly diagnosed DM patients to the dietitian. (1 May '17)

Problem 3: Limited dietitian appointment slots

Intervention: Started a monthly patient group education workshop - "Start Right" to provide nutrition information to newly diagnosed DM patients (20 June, 22 July, 1 August, 16 September '17).

Problem 4: Lack of orientation for new doctors (28 June '17)

Intervention: Nutrition management and dietary intervention of diabetes was included in the orientation of new doctors and was carried out during lunchtime teaching session.

Outcome

Benefits for patients:

- Less lead time to see a Dietitian
- Patients gain knowledge on diet for DM control from Dietitian and through interactions with other patients
- Less DM complications, medication and clinic visits
- Improved HbA1c
- Patients are empowered to control their diet
- Improves patient's quality of life

Benefits for the organisation:

- Less workload for doctors/CMs so they can focus on other tasks
- Less prescription errors, work stress
- Less consult time per patient hence improves waiting time
- Improved clinical KPIs

Conclusion

This project led to interventions that offered patients with more treatment options and in turn empowering them in management of their own health.

With "Start Right" workshop, patients need not experience long waiting time for 1-to-1 consult with the dietitian. Interactive group sessions also allowed patients to share their challenges and experiences, to enhance peer-learning and hence increased self-awareness in dietary management. This, in turn, contributes to the likelihood of keeping diabetes under control.

Mental Health Collaborative Learning Labs

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Background

Multi organisational “Collaborative Learning Lab” building service improvement capability and capacity across 17 Mental Health NHS providers across the South of England. We successfully engaged clinicians and managers, significantly increased “reliable improvement capability” translating into measurable, sustainable improvements via cultural change, with participants inspired to innovate and lead.

Methods

External improvement science expertise was engaged to support the development of a programme of learning to develop a self-sustaining improvement leadership capacity – the Faculty.

The Faculty identified key for further quality improvements in safety, outcomes and experience. A programme was devised including examples of:

- Three, two day learning events a year
- Establishing Executive sponsors in each organisation
- Establish programme management capacity and capability
- Establish Improvement coaching, critique and support
- Establish “Driver diagrams”
- Establish measurement strategy and measurement skills
- Adopt a safety culture and become a system for learning
- Develop the capacity and capability for co-production in QI
- Make improvements to quality and reduce variation in clinical practices
- Create a network that uses measurement for improvement and learning, and uses the model for improvement to develop test and spread new or existing, local and national innovation.

Outcome

The Collaborative Learning Lab is in its 7th successful year. Membership has grown, and the Faculty is now self-sufficient.

The collaborative projects have started to deliver some significant results that are without doubt improving services and therefore the lives of our patients. It is giving staff more control, increased leadership skills and huge satisfaction in delivering better care to patients. Members are spreading their learning as we see more initiatives adopted in other wards and organisations.

3 examples of the initiatives and how they have impacted:

1. Reduction of violence on a specialist dementia ward has been reduced by more than 20%
2. Blank boxes on drugs charts have been reduced from the national average of 13% to 0% and kept there for 6 months.
3. Falls and harm that results from these have been reduced by 50% and it is still improving.

The better the results the more members are committed to continuing to strive for more and build the expertise for future NHS services.

Conclusion

After each learning lab session, we collect feedback from participants. This is analysed the same day and improvements are made to the following day's programme in response to the feedback. This shows our members an example of the live improvement approach in how we operate, as well as what we teach.

Member quotes:

"The level of learning we have achieved since the beginning has been huge.

It's so nice to see visually how we are doing by using the measures.

The benefits of the MH Collaborative days have been invaluable"

"We have taken a new way of thinking and working from the Collaborative. It really has changed the way staff feel about the care they deliver and it means that every member of staff whatever their role can contribute to improving patient care. "

"Staff have been coming back from learning events full of energy and enthusiasm for delivering small scale change and are feeling supported in doing that."

Re-designing the blood transfusion procedure in operating rooms: aligning work-as-imagined and work-as-done

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Background

Though a blood transfusion is thought to be a highly safe procedure, everyday practice in operating room is greatly influenced by the situation of ongoing operation and managed under the flexible adaptation of medical staffs. An incident report revealed a gap between work-as-imagined(WAI) and work-as-done(WAD) on blood transfusion procedure in operating rooms in Gunma University Hospital, Japan. To redesign the procedure to a safe and time efficient way, we gathered a team involving operating room nurses, anesthesiologists, blood transfusion department staffs.

The blood transfusion procedure in operating rooms was a mixture of a paper based method and a bar-code based electric method and therefore inefficient. This was a result of adaptation when the bar-code system was newly incorporated. Also, we found that there was a practical problem with a patients' wrist band ID tag, which was hidden under clean drapes and therefore was un-accessible for the identification.

Methods

Intervention: As a result of the repeated discussion with related staff, we came to a conclusion to ban the paper based method and instead use the bed side bar-code identification. The problem was a patient ID tag (wrist band) but we found that in most of the major surgeries, it was cut and disposed when the anesthesiologist introduce the arterial pressure line. We decided to use this pre-cut wrist band for the patient identification.

Measurement of improvement: We performed questionnaire surveys to the operating room nurses and anesthesiologists at two time points after the change of the procedure, three months and one year, to evaluated the implementation rate of the new methods. Also measured the number of the blood units which were missed to be checked by a bar-code identification as an outcome.

Outcome

Effects of changes: The survey revealed that most of the anesthesiologists accepted the new methods and evaluated that it was more time efficient than the paper based old method. Also the implementation rate of a bar code system raised significantly. Also feed-back revealed that the information of the blood transfusion ordered was shared less between the nurses and anesthesiologists than the old method.

Conclusion

Lessons learnt: To align the work-as-imagined and work-as-done, it is important to look into the detail and understand how the medical staff in the sharp end is doing their job with adaptation. Also it helps to reveal barriers and misunderstandings of the procedure if any. Evaluation of the improvement and feed-back from staffs is important after procedure changes. Patient identification in the operating room remains to be solved by technical breakthrough.

Netherlands Heart Network: Improving value for heart patients by integrating care delivery systems.

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Background

In order to improve patient relevant outcomes, guidelines need to be followed. Guideline adherence in atrial fibrillation (AF) care is suboptimal and therefore urgently needs improvement. To achieve certain improvements, transmural standards of AF-care accompanied with active quality systems may offer a solution. This study aims to assess whether quality systems are a feasible and effective approach to improve guideline adherence and outcome registration in AF-care.

Methods

Data for this research were used from 4 hospitals that jointly developed and implemented transmural standards for AF-care within the Netherlands Heart Network (NHN). In September-October 2017 audits were performed to assess AF guideline adherence in which process-and structural measures were indicated based on (inter)national guidelines on AF treatment and diagnosis. Completeness of outcome measures for AF-patients, based on the Netherlands Heart Registration' medical sets, were evaluated by performing descriptive statistics using SPSS 21.0.

Outcome

In the analyses 448 AF-patients were included. After 6 months significant improvements regarding EHRA-score, hypertension, and type of AF were indicated. Furthermore, results on patient relevant outcomes indicated 23 hospitalizations, no major bleedings, 2 strokes, no adverse effects of medication and no AF-patient deceased. Regarding guideline adherence, all hospitals met the required norms ($\geq 90\%$), which is superior to previously published results.

Conclusion

Optimal guideline adherence in AF-care is a feasible target when transmural standards of care are accompanied with active quality systems. Within the NHN studies are ongoing to demonstrate the effects of optimal guideline adherence on long-term outcomes in this population.

TIC - an inter-professional approach for The Involving Conversation

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Background

The ward is an inter-professional ward on Naestved hospital in Denmark that rehabilitates patients after a stroke, traumatic brain injury, Guillian-Barre or other neurological diseases. In the inter-professional team, there is one doctor, a nurse, a physiotherapist, an occupational therapist, a speech therapist, a social worker and a neuropsychologist.

Feedback from the patients showed, that they did not see a doctor as often as required, and they did not know what their goal for the rehabilitation was.

Methods

We have made focus Group interview, time study and several PDSA cases during the last 2 years. We have been testing models for The Involving Conversation.

Outcome

The model for The Involving Conversation has been implemented in the whole ward to all the patients.

Timesaving, positive feedback from the patients and their relatives, the patients experience more involvement in their own rehabilitation is some of the conclusions.

Conclusion

The involving conversation decreases the time spent on planning the rehabilitation program. The patients' goals can be different from the professionals'.

We learned, that we should not focus on limitations before trying and testing the setup. Test it in a small group to evaluate before implementing in the whole ward.

Is investigation worth it? Quantifying financial cost of harm in England

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Background

The NHS has not quantified the financial cost of harm associated with Serious Incidents and Never Events. This quantification is complex with multiple influencing factors. Quantification is fundamental to exploring the burden of harm and informs how best to allocate resource. This is pertinent when investigations may fall short of providing recommendations that prevent recurrence; are they worth the time and money spent?

Never Events in England, incidents that should never occur, are a controversial subject. The financial penalty associated with these events (at the time of writing) and the time spent investigating them may not balance the learning and levels of actual physical harm (the majority of Never Events are no/ low/ moderate harm). The primary objective was to accurately quantify the financial cost of Never Events in the local hospital and extrapolate to Serious Incidents. This was to include financial penalties, cost of investigation, litigation etc.

Methods

7 Never Events during 2016/17 were mapped using Value Stream Mapping (VSM). VSM provided an overview of steps in the process, time and cost. A high-level process map is provided in the figure. This required engagement with staff who were involved in the undertaking of investigations and management of the process to explore role and time commitment. This was undertaken via surveys and staff interviews. 34 staff were interviewed and 122 survey responses were received relating to the 7 Never Events. Further data/ costs were obtained from Human Resources, Claims and PLICS (patient level costing). Never Events are Serious Incidents and so the findings could be extrapolated to other non-Never Event Serious Incidents as they are managed the same.

Outcome

The process of analysis was a retrospective assessment of the cost of 7 Never Events. However, a model was also created to allow proactive analysis of future events. The key findings were:

- Patients, to whom a Never Event occurred, on average, cost the NHS £1000 more in care.
- Each Never Event costs, on average, £10, 287 from lost earnings and investigation. (Note, since this work, NHS Trusts are no longer financially penalised for Never Events).
- The investigation, on average, requires 188 total hours of time.
- For the Panel alone, the average time was 72 hours spent per incident, costing £3000.
- Extrapolated to the NHS's 424 Never Events in 2016/17 this cost the NHS £4.2 Million.

Conclusion

These findings provide evidence for discussion about how best to manage investigation of Serious Incidents in the NHS. Locally this work is supporting the development of a "Serious Incident Faculty" to provide high-quality investigations for the best value.

Integrating Human Factors into Healthcare. AcciMaps versus HFACS

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Background

To date, healthcare has recurrently failed to learn from when things go wrong through traditional Root Cause Analysis approaches; incidents therefore repeat. Ergonomics and Human Factors (EHF) has been heralded as a science offering healthcare deeper understanding of human and system influences as contributory factors in error. The use of EHF methods supports this; two potential methods are the Human Factors Analysis and Classification System (HFACS, a taxonomical approach) and AcciMaps (a visual approach).

Study aim: To identify and develop an appropriate EHF model for improving investigation of acute healthcare-related patient safety incidents by healthcare staff.

Methods

Staff who undertake investigations were invited to workshops during which the methods were applied to a Serious Incident (workshops were randomised to reduce order bias). HFACS codes were developed from original research to be applicable to an acute-healthcare setting. Feedback was obtained via surveys and focus groups to measure:

- Usability/ appropriateness: Feedback against constructs.
- Overall preference compared with initial model used via Pearson's Chi-Square test.
- Validity: Face/ content validity. Concurrent validity between the models and classic RCA was also explored narratively.
- Reliability: For the most popular model identified, inter-rater reliability was considered using Krippendorff's alpha.
- Qualitative analysis: Focus group discussions were recorded and transcribed for thematic analysis using NVIVO.

Outcome

58 investigators attended workshops. HFACS was the most popular model based on usability, appropriateness and validity. Krippendorff's alpha was applied to HFACS at a framework (substantial agreement), subcode (moderate) and nanocode (fair) level. There was no statistical suggestion of order bias.

Conclusion

HFACS presents a much needed prescriptive model for investigations. It is being applied to support learning from Serious Incidents locally and feedback from Commissioners is positive. The full HFACS framework and codes are available via the NUH Public website under Creative Commons.

Establishment of Canadian competencies for safe prescribing

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Background

The Royal College of Physicians and Surgeons of Canada (RCPSC) accredits specialty training programmes in Canada, certifies specialists and directs maintenance of competence activities for its members.

Medication-related errors and adverse events are a concern worldwide. In the absence of existing Canadian prescribing competencies for physicians, the Prescribing Safely Canada (PSC) project was launched to establish them and integrate them into self-assessment modules for practising physicians. The PSC steering committee assembled as oversight included representation from the RCPSC, College of Family Physicians of Canada (CFPC), Canadian Medical Protective Association, Canadian Society of Hospital Pharmacists, Canadian Pharmacists Association, Association of Pharmacy of Canada, Institute for Safe Medication Practices and British Pharmacological Society (BPS). A six-member Working Group (WG) directed the initiative, and included representation from the RCPSC and the CFPC.

Methods

This is a 2 phase initiative: Phase 1: establish prescribing competencies for Canadian physicians by 'Canadianizing' the Royal Pharmaceutical Society 2016 Competency framework for all prescribers with mapping to CanMEDS2015 Physician Competency Framework; Phase 2: adapt UK prescribing assessment tools. Phase 1 is described here. WG purposively selected stakeholders for diversity of physician gender/ specialty/practice type/location to participate in a modified Delphi process. Of 118 persons invited, 52 consented; 26 participated in all 4 rounds. Participants asked to recommend inclusion/exclusion/revision of competencies and provide comments; 80% agreement was established a priori for inclusion. 54 competencies were identified for inclusion, 11 for revision, 2 for amalgamation; and refined over 3 further cycles til 64 competencies were in the final Canadian prescribing framework. The 64 competencies matched most with the CanMEDS Professional, Medical Expert and Communicator roles.

Outcome

The final Canadian prescribing competencies will be distributed to steering committee members for distribution across their respective stakeholder groups to inform undergraduate and postgraduate medical education programmes in Canada. Incorporation into training programmes will be facilitated given the competencies are mapped to the CanMEDS2015 Physician Competency Framework. Launch of the Canadianized UK prescribing assessment tools will afford further opportunity to use competency gaps identified through the Phase 2 tool as a needs assessment for ongoing curricular development in this area.

Conclusion

This project attests to the value of international collaboration in furthering competency based medical education (CBME) and high quality medical care across the professional life cycle. Positive deviance teaches that there is much to be learned from those who have successfully implemented a project and have positive measurable outcomes. This success can apply equally to shared learnings related to successful implementation of CBME. Physician competence is

central to quality healthcare. Medication prescribing is a fundamental competency that must be learned, maintained, and extended throughout one's career. Developing the micro-competencies of medication prescribing is a priority bridge to this end. Partnering internationally benefits everyone.

What matters to you: to be empathic to patients students have to receive empathy

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Background

The study was done within a university (FGV-EAESP) setting, with graduate students in the field of health management. Faculty was concerned with the appropriateness of contents taught in health management graduate courses. Interviews with alumni offering jobs to our graduates showed doubts about their competence regarding specific issues. This was due to a curriculum that covered very well the basics of health management but that did not leave opportunity for new contents.

Simultaneously, the school decided to launch a new professional master in competitiveness and innovation, with several majors (health among them) and we wanted to be ahead of and different from the competition. The moto for the health major was IHI's triple aim.

Health management education team needed support from the school management and from the courses' coordination, besides cooperation from alumni community, from health stakeholders and from prospect faculty.

Methods

Dissemination happened during meetings meant to increase adherence of managerial team and direct communication with students, prospect students and alumni.

Masters students were introduced to triple aim and to "what matters to you" contents. They were invited to participate in a personal interview program, for evaluation purposes, where specifically "what matters to you" was asked.

Since 2014 the school reviewed its specialization program, AMBA accredited. In the course's last quarter there was a new subject, called "special issues in health management". Each term, one month before the beginning of the class, the teacher sent an email to the students asking them which contents they thought they were lacking.

In 2015 faculty related to the design of the new Master's actively started interviewing employers, partners and alumni regarding abilities lacking in graduates from existing health management programs and in general, in the field.

Outcome

This new specialization curriculum is already under review. Students who have actually suggested contents feel at ease to participate during classes and consider the new additions very useful. Some of them realize that what they had asked was not what they wanted.

Master's students have been relating to the interviews of previous semesters in their interventions. In the general anonymous evaluations of the course (NPS) they say that some of the specific contents are really new. Some of those suggested by all stakeholders, for the Master's as a whole (basically people skills), were considered very useful in their day to day work

For the specialization course, this process showed some weak points of the curriculum, to be dealt with during the new revision, regarding both health contents and basic managerial ones that were repeatedly mentioned.

Master's students built a special relationship with the course and with the school, but there are no concrete results so far.

Conclusion

Academic coordination was able to design a clear pathway between those two courses, with the specialization course being a pathway to the Master's.

Faculty as a whole is still in the process of accepting this new relationship with students. Change in academic settings is difficult as new mental models are hard to implement.. Partner stakeholders are much more willing to engage in course activities, both accepting to come talk to the students and to receive them in their facilities and even to mentor some of them but there are stakeholders with agendas not related to course contents.

To deliver empathic quality care to patients, management students have to receive empathic treatment. They like to be heard and to realize that they can interfere with their courses while they are still in it, not only for future classes. They may feel more at ease at individual interviews than at group gatherings to answer questions concerning contents, methods and peers.

Creating Value through Team Training in Advanced Communication Skills

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Background

At the US sites front-line staff in magnetic resonance imaging (MRI) and, at Deventer Hospital, multidisciplinary teams including pediatricians, anesthesiologists, and psychologists received training in advanced communication and interpersonal skills including rapid nonpharmacologic management of anxiety and pain (Comfort Talk®).

Medical visits commonly induce anxiety. Prior research showed that in addition to the emotional cost of anxiety for the patient, it contributes to no-shows, increases drug use, prolongs and complicates procedures, and adversely affects recovery. All of these factors impair operational efficiency, overall safety, and patient satisfaction. The premise of the work is based on findings from our prior large-scale clinical trials showing that under standard care conditions, pain and anxiety during medical procedures increase over time, but that this process can be prevented by supportive communication at the beginning of the procedure.

Methods

Teams were trained in advanced communication techniques including gaining rapid rapport, adapting to the patients' verbal and nonverbal preferences, avoidance of negative suggestions, setting expectations, and use of appropriate language (Comfort Talk®). Local champions, who had taken a validated in-service course, participated in the standardized training, utilizing a Trainer Manual. To further team coherence and development of a common language, the training used a hybrid approach with online and onsite elements, a teaching book, and hand-out materials as well as a site-specific web-based support portal. Trainer training also used a standardized approach via online and live training sessions.

Opportunities for feedback from the staff and patient groups involved were given during training and on the online support module. Staff developed their own language "cards" to use in challenging patient interactions. They could also interact in forum-type activities on the support portal.

Outcome

Comparing the period prior to training to post-training, in MRI there was a significant reduction in no-shows (11.2 to 8.7%) and incompletions (2.3 to 1.4%). In the randomized comparison, equipment utilization was superior at the trained sites. Trained sites showed a significant increase in patient satisfaction and better retained their patient volume in accordance with those. After training at Duke, patient factors necessitating sedation and/or interfering with image progression/quality decreased from 9.0% to 5.5% at hospital sites and from 3.1 % to 1.2% at freestanding sites, significantly improving the economics.

At all trained sites personnel behavior changed in accordance with the GOSCE while it did not at the untrained sites. At Deventer, the training resulted in considerable positive feedback by patients and press further enhancing the

permeation of the training with an institution-wide roll-out to include 500 staff in 2018 and the remainder to follow in 2019.

Conclusion

Team training in advanced communication skills can be successfully implemented in creating value-conscious cultures.

When engaging in team training it is critical to be able to produce behaviour changes that are teachable and observable and that have been validated by patient outcomes. Only then can training and trainer training be sufficiently standardized and validated.

Patients became involved by being guided towards relaxation at the time of their distress and by being approached using positive language and matching body posture by staff members who help them to strengthen their own coping mechanisms. Patients were informed about the hospital using the Comfort Talk® approach through print and television news media in the Netherlands enhancing the enthusiasm of staff to pursue excellence.

The work was supported by a grant of the National Center for Complementary & Integrative Medicine: NIH Award Number R43AT006296. Author EVL is founder and owner of Comfort Talk®

Redesigning Workflow and Nursing Training to Reduce Length-of-Stay to Improve Outcomes for Benign Prostate Hyperplasia Patients Undergoing Transurethral Resection of Prostate

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Background

At Tan Tock Seng Hospital's Day Surgery Centre (DSC), a wide range of minor operations are performed daily. A handful of these surgeries are urological procedures for which patients could be hospitalised for up to 48 hours.

Traditionally, Transurethral Resection of Prostate (TURP)/Transurethral Vaporisation of Prostate (TUVF) patients were admitted to our inpatient wards for post-operative care and monitoring. Past data from Case Management Unit (CMU) database revealed that all of these patients utilised inpatient beds with an Average-Length-of-Stay (ALOS) of 3.0 days in 2012, 2.1 days in 2013 and 2.4 days in 2014. Among these over-stayers (>2 days), one third were due to non-clinical reasons. Hence, a call for change in care redesign was proposed to shift post TURP/TUVF patients to DSC. Our primary aim was to better utilise our resources and free up inpatient beds so that they could be allocated accurately for those in need and address our frequent bed-crunch situation.

Methods

The project team comprised of a clinical champion, case managers, nurse clinicians and nurses from the urology departments, CMU, clinics, DSC, inpatient wards, operations manager and financial team from Pre-Admission Counselling and Evaluation (PACE). We obtained an official approval from the institution's Medical Records Committee (MRC) for a pilot study in February 2015, which lasted for 2 months. Following a promising pilot study outcome, full-time implementation of the revised TURP/TUVF clinical pathway and inpatient-ambulatory shift to DSC began in May 2015. The plan was to shift medically appropriate patients who were scheduled for TURP/TUVF into DSC. The primary decision for admission to DSC was dependent on patient's medical problems and complexity, which were decided by his respective urology doctor. Post-procedure, patients were cared for in DSC and aimed for urinary catheter-free the next day in order to be medically fit for post-operative-day (1st POD) discharge.

Outcome

Impact of our change and resolved problems: Our care redesign enabled a smooth transitional shift of our inpatient-to-ambulatory patients. Due to Singapore's ageing population and the hospital's strategic location, bed occupancy in our institution remains a big challenge as older and frail elderly patients require hospitalisation. The demands for acute inpatient beds remain high, thus we are often met with bed-crunch situations. Our redesigned workflow facilitated timely discharge in DSC and optimised the capacity of each inpatient hospital bed. Also, the reduced ALOS post-implementation between inpatient and ambulatory stay meant resources are now utilised more effectively.

Benefits to patient care: Patients can also expect an earlier discharge without urinary catheter and recover in the comfort of their own homes, reduced risk of hospital acquired infections from unnecessary prolonged hospital stay, with uncompromised high-quality, cost-effective medical and nursing care.

Conclusion

Our team has learnt that a good project is a continuous learning process. The nature of a project is dynamic which involves careful planning, synthesising of ideas, analysis, execution and evaluation. Disagreements, miscommunications and differences are inevitable, especially when workflow changes are affected. Each of us has a unique perspective and skill-set that can help the patients we see every day. By actively contributing our ideas towards the goals of improving healthcare, every tiny part and effort can become very fruitful when we work together as a team.

Safe transition of a whole of hospital move

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Background

The new Bendigo Hospital Project was the largest regional hospital development in Victoria, Australia and delivered a new hospital featuring 372 inpatient beds; 11 operating theatres; an integrated cancer centre and an integrated mental health unit. With more than 3,500 staff, the new Bendigo Hospital provides for the future health needs and increasing demands of a growing population. The new hospital was constructed as a purpose built facility on a new site approximately 600 metres from the old hospital. The problem was 'How do we safely move patients from the old hospital site to the new hospital and continue to operate business as usual?' Site visits to new hospitals within Australia and overseas were undertaken and a literature review conducted for information that may assist, however it was clear that no blueprint exists to ensure the safety of patients and staff, or business continuity, in transitioning from an old hospital to a new hospital site.

Methods

The Emergo Train® system, used in over 30 countries to simulate major incidents to test the preparedness and management of response, was employed by Bendigo Health in a different way; to simulate a whole of hospital move. Key staff identified the clinical complexities impacting the delivery of services before, after and during the move and subsequently a range of resources were developed for Emergo Train exercise participants including department move plans, travel pathways and action cards. Interactive workshops were held with staff to facilitate planning and to orientate staff to their own Department and its connections to the broader hospital (wayfinding) through patient centred table top scenarios. The day prior to the exercise, participants (60) and Emergo Train Observers (30) were briefed by the Emergo Train Instructors and in August 2016, the Emergo Train exercise took place with participants allocated to groups that reflected their role on the day of the move.

Outcome

A questionnaire was designed specifically to gain feedback on the Emergo Train exercise from participants. Survey results were very positive with 100% of respondents finding the 'Time Scenarios' helpful, 80% finding the exercise directly reflected activities that would be conducted on move day and 88% indicating that the exercise helped them better prepare for the move. Ninety six percent reported that the exercise was a good investment of their time. Participants also completed a brief survey 4 weeks post transition into the new hospital to assess the impact of the exercise on the actual move. Results were positive with 85% agreeing that the Emergo Train exercise helped prepare them, 95% felt that identified suggestions for improvement were implemented for the move and, most importantly, 95% felt the exercise positively impacted patient safety on move day and would recommend the Emergo Train exercise in other hospital move simulations.

Conclusion

The Emergo Train exercise was conducted five months prior to the move to allow sufficient time to process feedback

and address identified issues which resulted in optimal move preparation. The exercise was resource intensive, not only on the day when a large number of senior staff were required to dedicate their time and energies, but also in the lead up to the day. The range of resources developed took substantial time, effort and collaboration, however they were essential to the exercise and helped to clarify the detail that would be required on move day. We believe that utilising simulation technology in our preparations really did help to ensure a safe and smooth move and would recommend its use to other hospitals preparing for such a transition. Approximately 170 patients were moved from the old hospital site to the new hospital site over the course of the day. All patients arrived safely at the new site and the transition ran safely, smoothly and to schedule on the day.

A non-randomized pilot study evaluating the quality and feasibility of (partial) oncological home-hospitalization

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Background

Oncological home-hospitalization (OHH) offers a patient-centered approach to deal with the challenges oncological day care units (DCU) are facing.

Current systemic cancer treatments require frequent hospital visits that are known to be stressful for patients and generate a high workload for hospital staff. Furthermore, these hospital visits are associated with significant costs for patients and society, this against the background of increasing focus towards more cost-effective healthcare. OHH aims to render ambulatory cancer care more efficient, patient-centered and cost-effective. However, more accurate and valid data are needed in order to correctly inform all stakeholders on the potential of generalizing this new model into clinical practice, as empirical evidence is currently scarce.

A care model for (partial) home-based cancer treatment was developed, implemented and evaluated at the oncology DCU of the general hospital groeninge, Kortrijk, Belgium.

Methods

Implementation of (partial) OHH was dual. For those patients receiving intravenous cancer medication, the home-intervention comprised all assessments required before administration of cancer therapy. This was performed one day prior to actual therapy administration at the DCU (day -1), enabling the oncologist to prescribe and pharmacy to prepare cancer therapy before patient arrival. For patients receiving subcutaneous cancer therapies (i.e. bortezomib and azacitidine), injections were administered at the patients' homes.

A pilot study was conducted to evaluate the feasibility of this new model and to compare its quality with standard ambulatory hospital care. Patients who were (re)starting systemic treatment at the oncology DCU were stratified into an intervention and control cohort. Patient-reported outcome measures were completed at start of treatment and eight weeks later. Waiting time for treatment administration at the DCU was calculated for all visits of the included patients.

Outcome

Thirty patients received home-hospitalisation, corresponding to 116 interventions. For twenty-eight patients, this comprised all assessments required prior to administration of treatment, which resulted in a significant reduction of waiting time for treatment administration at the hospital in comparison with the control cohort (n=24) (average reduction of 1:12h, $p<0.001$). Two patients received actual subcutaneous therapy at home, fully replacing otherwise required hospital visits. None of the patient-reported outcome measures evaluated revealed significant differences between both cohorts (i.e. FACT-G, EQ-5D-3L, MYCaW, OUT-PATSAT35CT, HADS, DB, PREOS-PC; all $p>0.05$). 29/30 of

patients of the intervention cohort were satisfied with the provided homecare and preferred to have it continued, 22/25 declared to feel at home at least as safe as in the hospital. No serious safety concerns were reported.

Conclusion

The results of this pilot study suggest that (partial) oncological home-hospitalisation is feasible, safe and statistically not affecting patient-reported quality of life and other relevant patient-reported endpoints. Furthermore, this care model was preferred by a substantial number of cancer patients and resulted in significantly reduced waiting times at the oncology day care unit.

The results of this study will help to optimize the clinical pathway for home-hospitalization and further research in this field. Well-designed randomized trials should be organized in order to provide an in-depth evaluation of the quality and economic consequences of this new care model.

Deprescription Alert Forms Reduce Inappropriate Prescribing of High Priority Medications

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Background

Increasing use of prescription medications may be associated with adverse drug reactions, poor adherence, drug interactions, delirium, falls, cognitive impairment, frailty, and death. As many as 50% of patients receive potentially inappropriate medications, and an inpatient hospital stay may increase this risk. In Australia, it is estimated that one in five prescriptions issued for older patients is inappropriate.

Evidence suggests clinicians find it difficult to cease medications due to apprehension and lack of deprescribing knowledge, as well as concerns over withdrawal effects. Previously trialled interventions to reduce inappropriate prescriptions have required significant time and resource investment.

Our objective was to determine the impact of a Deprescription Alert Form (DAF) on the number of potentially inappropriate prescribed medications by notifying medical staff of patients receiving hyper-polypharmacy and indicating drugs to prioritise for deprescription.

Methods

Maroondah Hospital, part of Eastern Health, is a large metropolitan teaching hospital in eastern Melbourne, Australia. This project took place across two acute general medical wards and involved ward doctors and pharmacists.

The highest priority drug classes identified were benzodiazepines, antipsychotics, statins, proton-pump inhibitors, antidepressants and opioids. These were included along with an 'others' section for pharmacists to list other potentially inappropriately prescribed medications and recommend cessation or dose reduction.

Patients over 65 years receiving 10 or more medications were enrolled by the ward pharmacist, who filled a DAF on admission.

The completed DAF was placed in the bedside folder with the medication chart to alert the medical team to consider deprescription during admission. A control group of similar patients were recruited subsequently without a DAF for comparison of baseline deprescribing rates.

Outcome

30 and 40 patients were recruited for the baseline and DAF groups, respectively. In the baseline group there was no change in the number of long term medications prescribed between admission and discharge. This was found for both the total number of medications (11.9 vs. 11.5) and high priority medications (3 vs. 2.9).

In contrast, patients in the DAF group saw a significant reduction in both the number of total and high priority medications. At the time of discharge these patients were taking on average 11.5 medications, compared to 13 on admission. Similarly, high priority medications were reduced from an average of 3.6 to 3.2.

Conclusion

The DAF aims to raise awareness and offer the prescriber greater confidence and decision support. This should promote better clinical practice and safer medical care by reducing inappropriate prescriptions and adverse effects. In doing so, it could also decrease healthcare costs.

Greater awareness of the DAF and its importance among medical and pharmacy staff may be required to increase the beneficial effects on prescribing patterns observed in this study.

Regular educational sessions on the importance of deprescribing, in recognising high priority medications and the process involved including participation of patients, may further optimise its success and patient outcomes.

DAFs can be successfully used to reduce the number of total as well as high priority medications in general medical inpatients patients receiving hyperpolypharmacy.

Further research should combine the implementation of a DAF with practitioner education regarding deprescription.

Staggering shifts to rebalance Night Medical Registrar Workload

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Background

Burnout is a common syndrome seen in healthcare workers, particularly doctors at both junior and senior levels who are exposed to high level of stress at work. Lone night medical registrars at urban hospitals have exceptionally high workloads. Doctors experiencing burnout are reported to be at a higher risk of making poor decisions leading to medical errors.

This project was undertaken at Maroondah Hospital(MH), a teaching hospital with 200 acute beds and 5493 Medical admissions in the last financial year.

The General Medicine unit at MH follows a 7-day team based model of care. There are 2 teams with the day team rostered from Monday to Friday from 0800-1700, two afternoon registrars from 1330 to 2130 and a sole night medical registrar from 2100 to 0900, 7 days a week.

The aim was to evaluate the impact of a staggered roster for daytime admitting medical registrars on improving the workload of the sole night medical registrar.

Methods

We developed a redesigned roster to improve the efficiency of medical admissions. We undertook a prospective audit with the planned intervention of staggering the admitting medical registrar shifts to provide an overlap between the day and night teams and reduce the time that the overnight shift has a single registrar.

We had a pre intervention period from 1st August, 2016 to 31st October, 2016 with the standard admitting registrar shifts with two medical registrars in the afternoon and one night medical registrar. The post intervention period was of from 1st November, 2016 to 31st January, 2017 with staggered shifts one registrar commencing at 1330 to 2130 and the second commencing at 1530 to 2400, thus providing a 3 hour overlap with the night medical registrar commencing work at 2100. Workload of the night medical registrar was recorded by the senior medical registrar in the morning handover. Data from weekends and public holidays was not recorded.

Outcome

In the pre intervention phase the total admissions by the night medical registrars was 519 and in the post intervention phase was 415 respectively, in the 3 month period. Average number of admissions by the night medical registrar was 8.66 in the pre intervention phase and 6.38 in the post intervention phase. There was a significant reduction in number of admissions by the night medical registrars after the afternoon registrar shifts were staggered ($p=0.000057$). There was also a reduction in workload observed across other parameters, of note there was an increase in the number of ward reviews in the staggered period, possibly reflecting greater time availability and potentially associated with the decrease in the number of MET calls/CODEs observed in the staggered shifts.

Conclusion

We noticed a significant improvement in the night medical registrar workload through slight changes to medical staff

rostering. This could have substantial benefits for staff and patients and potentially may be associated with reduced clinical risk – reduced MET calls/CODEs and increased ward reviews. A useful secondary outcome would have been to measure the potential difference in work satisfaction of the registrars as well as referring ED doctors and other junior medical staff overnight. Data from weekends and public holidays would be useful to interrogate.

The appropriateness and utility of transthoracic echocardiograms performed in the very elderly (>85 years)

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Background

Healthcare expenditure represents 10% of the annual gross domestic product in Australia and as such, there has been a growing focus on the optimisation of patient care through the identification and reduction of low-value practices and interventions.

Maroondah Hospital is a major suburban public hospital in Melbourne, Australia. Maroondah Health is a part of Eastern Health which provides health care services to approximately 850,000 people, of which a significant proportion are the very elderly (≥ 85 years) who carry the greatest burden of multiple chronic diseases.

Methods

Approximately 1600 inpatient and outpatient transthoracic echocardiograms (TTEs) are performed each year at Maroondah Hospital at considerable time, financial cost and patient discomfort.

A 6-month retrospective audit was conducted on consecutive patients over 85 years who had inpatient or outpatient TTEs performed between January to June 2015 at Maroondah Hospital.

Study aims were to investigate:

1. Whether TTEs ordered in the very elderly were in accordance with 2011 American College of Cardiology / American Society of Echocardiography Appropriate Use Criteria (AUC) ("Appropriateness").
2. Whether in this population TTEs led to changes in management beyond that of clinical judgement and basic pathology and radiology investigations ("Utility").
3. Whether inpatient echocardiograms resulted in increased length of inpatient hospital stay.

Clinical utility was defined as: significantly revised diagnosis or active change in medication/therapy or new investigations performed.

Outcome

113 TTEs were performed on 110 patients over 85 years in the study period. Male sex 38%, median age 88 years (range 85-101 years), home dwellers 81%. Inpatient studies comprised 75% of all TTEs in this cohort.

Top indications for TTEs were: heart failure, valvular disease, bacteraemia/ infective endocarditis. acute myocardial infarction, arrhythmia, syncope/presyncope, stroke/transient ischaemic attack

Appropriateness: 90% appropriate, 3% uncertain/unclassifiable, 7% inappropriate according to AUC.

Utility: only 11 studies (10%) met the criteria for clinical utility. No patient was able to undergo valvular surgery despite having had TTE ordered appropriately. This suggests limited utility of performing echocardiograms in very elderly patients in our study cohort.

Length of stay: 69% of inpatient studies performed within 2 days of request. 5% of inpatient studies were performed on the last day of admission suggesting limited ability to influence inpatient management.

Conclusion

Although international guidelines for rational ordering of echocardiograms are helpful, they are neither age specific nor validated outside of an American context. In optimising the care of individual patients, clinician judgment of the balance between clinical utility and burden of investigations remains critical. Huge potential benefits exist for cost savings, reduction in length of stay for inpatients, and improved patient experience.

The impact of a dedicated neurologist on emergency department flow and satisfaction

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Background

Worldwide, emergency departments (EDs) face delays in patient care as well as patient safety issues.

Patients with neurological emergencies often need multiple diagnostic tests and have lengthy ED stays compared to other patients, contributing to ED crowding and compromised patient care.

There is increasing evidence that rapid diagnosis and treatment improve patient outcomes and decreases ED crowding. Therefore, it was decided to add medical specialists to the ED staff during out-of-hours. Physicians with more experience may be able to deliver higher quality and more efficient care, but research on this subject is not conclusive. Little is known about the benefits for patients of having dedicated neurologists in the ED during out-of-hours. Therefore the question to be answered in this study was: What is the impact of the presence of a neurologist during out-of-office hours at the ED on patient flow and patient satisfaction?

Methods

During an 8 week intervention period, a neurologist was available at our inner-city hospital in the Netherlands during out-of-office hours (weekdays between 5 p.m. and 11 p.m., and weekends between 2 p.m. and 6 p.m.). The neurologists performed direct or indirect supervision to residents of neurology and emergency medicine and emergency physicians, instead of being on-call at their homes. A cross-sectional, mixed methods, 3-part study was undertaken, including (1) a pre-post analysis of data of patients who had a primary neurological disease ($n=458$) and (2) staff surveys ($n=152$). Descriptive statistics and content analysis were used for analyses. One week before the pilot and in pilot week five, independent interviewers gathered information on patients' experiences using a structured questionnaire (3).

The study was deemed exempt by the regional medical research ethics committee.

Outcome

(1) Despite a 36% increase in the number of neurological patients (control period: $n=194$, intervention period $n=264$), a 30 minutes per patient decrease in median length of stay was reached during the intervention period. Furthermore, the admission percentage decreased significantly (57.7% vs. 47.7%, $p=0.03$).

(2) During half of the shifts neurologists stated that their presence had been valuable. Perceived reasons for this added value mentioned were improved quality of care, enhanced throughput of patients, and quicker consultations with other medical specialists.

(3) Patient recommendation scores climbed from -15 in the control week to +20 in the pilot week.

Conclusion

Our study design precludes causal inference, therefore, we stress that our findings are hypothesis-generating. The patient questionnaires demonstrates greater patient satisfaction with the services provided. However, this may not solely be caused by the presence of the neurologists, and the sample size was small.

Still, our study showed that neurologists' presence at the ED during out-of-office hours was associated with decreased patients' length of stay and a decreased admission percentage, indicating increased decisiveness when the neurologist is present at the ED.

This study was published in the Journal of Neurology, January 2018, <https://doi.org/10.1007/s00415-018-8734-x>

Reaching the Correct Diagnosis for Children (aged 11 –18 years) Referred to CAMHS with Challenging Behaviours

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Background

The project took place in a busy community Child and Adolescent Mental Health team in Dorset and involved the assessment and recommendation for treatment for young people, 12 -17 years, who were referred for externalising disorders.

There is a nationally recognised gap in provision to meet the needs of young people who have symptoms of conduct disorder. NICE provides guidance re recommended treatments for over 11years but they acknowledge there are well recognised negative outcomes (e.g. young people learning antisocial behaviours from each other). Klahr in a review paper talks about targeting interventions for specific subgroups within the conduct disorder diagnosis. This gives an opportunity to

- refine the assessment process
- discriminate treatment recommendations,
- give advice to referrers
- contribute to multiagency management of risk.

Methods

A small team of interested camhs workers was formed. Stakeholder views from 600 families and professionals from a previous appropriate project were reviewed. Meetings were held with various camhs managers, clinical governance meetings and camhs consultants to gather their views.

A template and pathway for assessment of these young people was drawn up with support from the local camhs team and wider camhs transformation group . Training was carried out in the Weymouth team and feedback gathered regarding the usefulness of the template tool

Outcome

The core team completed two run diagrams reviewing a 6 month period for all compliant referrals and the same person assessed the nature of the assessment and treatment recommendations. Following template training further run diagrams were repeated to allow comparison.

Pre training 141 patients over 11years were referred into Weymouth and Portland camhs over a period of 6 months for whom 55 (39%) presented primarily with externalising disorders. After the template development and training: 127 patients were referred over a similar 6 months for whom 24 presented with primarily externalising disorders. The run diagrams demonstrated an improvement in both the assessment and treatment recommendations across the team for these young people.

Conclusion

The camhs staff were very positive about the ideas and training. Their experience had been that they often felt very alone with dealing with risky behaviour. They particularly liked the idea of contributing into a multiagency forum to manage risk.

Problems include:-

- Constant change of management and senior clinicians. It takes time and effort to keep senior personnel on side

Lessons learnt:-

- start with a something that appears containable. It always gets more complicated
- the importance of team working,
- importance of support from senior managers
- feedback from stakeholders
- being able to present succinctly,
- use trust structures to create a sense of urgency, and consider waiting till a project fits with a trust agenda
- for the core team to be willing to keep nudging things on

Journey of Digital Innovation

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Background

At North East London Foundation Trust we provide children's mental health services for all of North east London, Essex, Kent and Medway. These services provide mental health support to children and their families from the age of two until the age of eighteen and can include early intervention support right through to tier four intervention. Our Journey of Digital Innovation project was undertaken across two of our tier three teams which specialise in offering community support for mental health and emotional well-being concerns. These teams were based in Walthamstow, a diverse and highly populated area of East London and our Emotional Well-Being Mental Health service which provides support to children across the much larger area of Essex where our service users can live in smaller or more isolated communities. We were initially looking at the overall satisfaction of our clients with our services following national concerns about children's mental health and well-being in the UK.

Methods

We initially used EBCD interviews to work with Young people and staff to work out the key areas of concern. These were identified as communication with services and access to resources. We then considered the key drivers for these factors and designed a digital solution to meet these needs. Young people were involved in the design which was initially called My Mind. We launched our prototype in Sept 2017 and reviewed stage one, the online resource library. We evaluated this over six months and used the information gathered to inform the phase two roll-out. The platform was re-named following feedback from young people and the user journey was amended to allow Young People to access the information with fewer clicks/registrations. The new streamline service, named MINDFRESH launches for data testing in April with our national launch of the full platform, including the revised resource section as well as our instant messaging and self-monitoring sections, scheduled for May 2018

Outcome

Our initial testing phase showed an increase in the use of online resources prior to referral to services and an improvement in awareness of where to find help to build emotional resilience without relying on traditional CAMHS referrals. Staff also showed increased understanding of App technology and how this could support children's mental health. Following on from phase one we expect to see increased client use over the coming 6 months with a particular focus on clients using instant messaging based technology to engage with services and manage their own healthcare journey. This will be closely measured against referral rates, the impact on clinician time and resources and both clients and clinicians feelings towards the service offered.

Conclusion

So far our work has shown a clear demand for digital technology as an enabler and improver of children's mental health services. The project has not been without its difficulty and disruptive digital innovation in children's mental health is still very much in its infancy. The key to the success of our project to date has been the inclusion of EBCD as this has ensured that the needs of the clients and the front line staff has informed the thinking, design and evaluation throughout.

The effectiveness of Individualised Strength & Balance Programmes (ISBP) for reducing falls in community-dwelling adults

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Background

NICE Guidelines for Falls recommend muscle-strengthening and balance programmes should be offered, if indicated, for the treatment of patients at risk of falls in the community.

The 3 Community Resource Teams (CRTs) in Cardiff and Vale UHB assess and treat a large number of patients at risk of falls. Since November 2015, if strength and balance deficits are identified on assessment, patients are offered a 6 month ISBP tailored to their abilities and needs.

Methods

Home visits completed at initial, week 2,4,6,8 & 6 month stages. Additional visits completed as required by individuals. Telephone Reviews completed at 3,4 & 5 month stages.

Outcome measures completed at initial, 8 week & 6 month stages. Number of falls, falls-related 999 callouts & A & E attendances recorded for 6 months pre-ISBP & 6 months during ISBP.

Exercises: Patients given a booklet containing 16 exercises with illustrations and instructions. Patients taught as many exercises as able, & encouraged to perform daily. Boxes ticked on booklet to indicate which exercises to perform. Progression of additional exercises, frequency, reps, and difficulty encouraged throughout a programme. Ankle weights provided and encouraged as able for resisted exercises.

All patients offered and encouraged to commence attendance at a community strength and balance class.

Feedback forms provided to patients for optional return.

Outcome

During a 2 year period, 468 patients completed an ISBP. 69% female, 31% male. Median age 84, age range 43-101.

Median initial Tinetti score: 17/28. Median 6 month Tinetti score: 23/28. Median initial Fear of Falling score: 5/10. Median 6 month Fear of Falling score: 4/10. Median initial 3m Timed Up & Go score: 27secs. Median 6 month 3m Timed Up & Go score: 19secs.

83% of Tinetti scores improved from the initial to 6 month stages.

53% of FoF scores improved from the initial to 6 month stages.

79% of TUAG scores improved from the initial to 6 month stages.

During the ISBPs: 984 less falls, 242 less falls-related 999 callouts, and 264 less falls-related A & E attendances occurred compared to the 6 months prior to starting an ISBP.

108 patient feedback questionnaires were received: 87% reported having increased confidence, 86% reported feeling steadier on their feet, 72% reported being more active, 90% reported planning to continue with the exercises

Conclusion

Even at basic values, this represents a minimum of approximately £78,914 less cost to the UHB for these patients (based off £157 per Ambulance callout, and £155 per basic A & E attendance).

These results suggest that the ISBPs are effective in improving strength and balance and reducing the risk of falls occurring.

It would be interesting to review the status of these patients for 6 months following their programmes, to evaluate the longer-term effects of the ISBPs.

The key message is that strength and balance exercise programmes must be individualised to suit different needs, and incorporate agreed goals that patients wish to achieve. People must also be encouraged to continue long term with exercises, by being offered and introduced to community exercise groups in the 3rd sector, rather than experience repeated referrals to healthcare services.

Long-term effect of a quality improvement for peripheral intravenous catheter assessment on prevention of phlebitis in a tertiary medical center in Taiwan

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Background

The prevalence of intravenous (IV) catheter-related infections is 0.5 per 1000 device days, and these infections cause tenderness, erythema, swelling and phlebitis. Catheter-related bloodstream infections (CRBSI) may independently increase hospital costs and length of stay; the aim of the study was to set up a standard operating procedure (SOP) for the maintenance of peripheral vein catheter patency and the prevention of IV catheter-related complications.

Methods

For quality improvement and assurance, our department routinely conducts a quality assurance meeting every 2 weeks

This quality improvement was implemented for patients undergoing anaesthesia for a ten-month period. The time course included 1 month of "baseline" phase, 3 months of "notification" phase and 6 months of "implementation" phase. Another 6 months of "follow-up" phase was compared after the accomplishment of the quality improvement. The peripheral intravenous catheters were set up by surgical ward nurses following the SOP.

Outcome

During the quality improvement, 14,682 patients received were enrolled in the program. There were 73 IV-related events and the overall incidence was 0.49% for this 10-month period program. The incidence of IV-related adverse events were 1.04%, 0.78% and 0.28 % in the baseline, notification

and implementation phase, respectively. To date, the incidence of adverse event kept as low as 0.09% after the end of the program in the follow-up phase, 11 IV-related events in 12970 patients. Overall IV therapy-related events declined gradually based on audit results.

Conclusion

A well established SOP to evaluate IV patency through a checklist may reduce phlebitis and improve long-term quality for patients undergoing anaesthesia. The checklist increases ward nurses' and nurse anesthetists' awareness of IV patency, and the feedback circuit substantially reduces IV event rate.

Improving engagement with patient diaries in critical care to aid psychological rehabilitation

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Background

Patients surviving critical illness are at risk of developing psychological problems after discharge. As many as 64% of these patients report symptoms of post-traumatic stress disorder (PTSD), which has been shown to positively correlate with length of intensive care unit (ICU) stay. NICE guidelines recommend commencement of rehabilitation to prevent both physical and non-physical morbidity as soon as clinically possible in this group. Patient diaries have been shown to assist patients experiencing delirium or fragmented delusional memories of their inpatient experience, which may contribute to the development of psychological problems. Factors including lack of awareness, time constraints and the non-compulsory nature have led to inconsistent staff engagement with the patient diary system at Medway Maritime Hospital ICU. This project aimed to increase provision, completion and overall multidisciplinary team (MDT) engagement with diaries for patients admitted to ICU for over 72 hours.

Methods

Trialled changes implemented via the 'Plan-Do-Study-Act' (PDSA) method included adding reminders for staff to the online patient note system 'Metavision' (cycle 1), providing education sessions for and raising awareness within the ICU MDT (cycle 2), and introducing a bedside guidance document to facilitate diary entry completion for staff (cycle 3). Data was recorded on and collected by Metavision. Primary outcome data was collected at the end of 10-day intervals and an average for each period was obtained. This provided us with 3 distinct data points for cycles 1 and 3 (30 days each), and 4 data points for cycle 2 (40 days).

Outcome

129 patients were sampled over 105 days, with 77 receiving diaries. Baseline average diary provision (26.1%) increased to 90.0% after cycle one. This increased to 100% and subsequently decreased to 63.6% during cycle two, returning to 100% during cycle three, achieving the primary project aim on three distinct data collection points. We hoped that by providing visual cues and reminders on Metavision, which is used by staff on a regular basis, it would help to establish routine behaviour regarding diary completion and provision. Therefore, more patients would be provided with a diary for use in recovery. Rate of daily entry completion also increased, and we engaged a total of 53 different members of the ICU MDT, including more physiotherapists and an occupational therapist (OT). We hoped this would benefit patients during recovery by having a more complete diary to read, with input from several different disciplines from the MDT that could describe their patient experience in detail.

Conclusion

Our primary aim to provide all patients admitted to ICU for more than 72 hours with a diary was also achieved during cycles 2 and 3. Overall, a greater number and variety of the ICU MDT completed diary entries, including physiotherapists and an OT who were not previously engaged. This indicates that the minor changes introduced worked effectively towards establishing improving, routine staff engagement with patient diaries. There are still some professions of the ICU MDT who are not engaging with the patient diary system, and their use may result in an increased workload for staff. However, patient diaries are thought to act as self-help care strategies in the prevention

and treatment of psychological problems, and potentially have a large impact on quality of life. In conclusion, we hope to have implemented effective changes, working towards long term sustainability of these improvements.

5 Questions to Ask about Your Medications – A Shared Aim to Empower Patients

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Background

A National Medication Safety Summit in Canada identified the need to increase patient engagement in medication reconciliation with the overall aim of preventing known medication-related failures during transitions of care.

A quality improvement initiative to empower patients was co-designed and co-developed by ISMP Canada together with Patients for Patient Safety Canada and the Canadian Patient Safety Institute, the Canadian Pharmacists Association, and the Canadian Society for Hospital Pharmacists.

Medication errors continue to be a significant source of avoidable harm in healthcare systems, especially at transitions of care. The evidence reveals a need to empower patients and correct the imbalance of knowledge among patients and their care providers.

Methods

An environmental scan and review of analyses of medication errors leading to harm during transitions of care formed the basis of the development of an intervention to empower patients. The '5 Questions' were derived from evidence-informed medication safety practices including medication reconciliation and medication management.

The intervention was to develop, test, evaluate and disseminate a medication safety 'checklist' for use by patients and healthcare providers. Through small tests of change the 'checklist' was re-designed to the '5 Questions'.

An online questionnaire received feedback and suggestions for improvement to the initial version of a checklist. The '5 Questions' were tested by patients and

healthcare providers using PDSA cycles and small tests of change to improve content and design. In response to interest from participating organizations the questions were translated into 22 languages.

Outcome

A national webinar and a media event launched the '5 Questions' in Canada. Organizations were invited to endorse the '5 Questions' through the addition of their organizations' logo to a customized PDF poster.

A national online survey of patients and healthcare providers (n=291) revealed that 85% of patients would feel comfortable asking their healthcare provider the '5 Questions', 84% of healthcare providers would be willing to answer their patient's '5 Questions' and 75% of patients responded that the answers to these '5 Questions' would be very useful to help them understand their medications.

There have been over 30,000 downloads of the poster since the launch. The YouTube video has been viewed over 4500 times since its launch September 2016. In survey qualitative responses, patients reported that the tool helps them identify which questions to ask and serves to improve their own medication safety.

Conclusion

A key performance measure was the extent of collaboration and use of the '5 Questions' among healthcare organizations. More than 180 Canadian organizations, at local, provincial, national levels; along with more than 15 international organizations have formally endorsed the '5 Questions' and have implemented programs to increase reach and dissemination. Collective evaluation results demonstrate a commitment to a shared aim of empowering patients with questions to ask about their medications.

Healthcare providers and patients have collaborated to encourage asking the '5 Questions'; a step towards empowering patients to be an active partner in their healthcare and mitigate the risk of harm from medications.

Assessment and improvement of hospital pharmacy technician skills in verifying prescriptions

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Background

The role of hospital pharmacy technicians is of great importance. They are the first link to verify the medication orders which the doctor prescribes. If they have given their agreement to a medication order, the logistic chain starts and the medicine is delivered to the nurse. An error in the processing of medication therefore has a direct, potentially significant impact on the quality of care. In recent years, we have been working to assess and to improve the level of knowledge of pharmacy technicians in the field of pharmacotherapy and pharmacology.

Methods

At the start of the project in 2014, a test was used to assess the pharmacy technicians' skills in verifying and processing hospital prescriptions. The results of this test and subsequent individual interviews were used as a reference to set up interventions on both group and individual level.

Thereafter, the selected interventions were started. Interventions offered to the complete team were a classroom evaluation of the test, extra training courses on clinical subjects and casuistry discussions. Besides, an individual buddy programme was started. In the buddy programme technicians with low grades were supervised and coached by high graded technicians. Moreover, the technician in the buddy programme received individual sessions with the pharmacist. Technicians in the buddy programme repeated the test periodically until a satisfactory result was achieved. After two years, the complete team of technicians was subjected to a new test to determine the effect of the interventions.

Outcome

The initial level of knowledge of pharmacy technicians turned out to be very diverse. Scores ranged from 2.8 to 8.8 on a scale from 0-10. In two years, the interventions improved the test results vastly. The team average increased from 6.4 in 2014 to 7.5 in 2016. The improvement of knowledge and self-confidence was also visible in the way pharmacy technicians communicated with pharmacist and doctor. Besides, the pharmacy technicians showed more uniformity in the way they carried out their work. The buddy programme ensured that the test results of pharmacy technicians enrolled in the programme improved significantly.

Conclusion

This project shows that ongoing training and attention can significantly improve the level of knowledge and self-confidence of pharmacy technicians. The test is repeated every two years. When assessing new test results it is checked whether or not the follow-up program needs to be adjusted. The outpatient pharmacy of the Diakonessenhuis is now also using a test to identify group and individual points of attention. In addition, the test is now used as part of the qualification of new pharmacy technicians. If the result is insufficient, they are not qualified for processing medication orders. The format used in this project can be used in various groups of health care providers such as nurses. It can thereby improve the quality and safety of healthcare enormously.

Does text mining software detect triggers and adverse events reliably?

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Background

The current methods for retrospective review of medical records are both timewise and cost wise inefficient. For example, trigger systems select cases resulting in a substantial amount of records in which no adverse events (AEs) are detected. Also, because of the workload only a sample of medical records are investigated, for example, deceased patients or patients from a specific ward. Another issue are the questionable results for the inter-rater variation.

Therefore, our research question was: "Is automatic detection of AEs with text mining software feasible and efficient?" Thus far, text mining software was investigated for triggers or a selection of AEs. In this study, we aim to test this for all AEs and their preventability using the Open Mines Platform supplied by "the Praktijk Index".

This study was executed at a large teaching hospital with 715 beds. The medical data of all inpatients who died during hospitalization between January 2012 and December 2016 were included.

Methods

The text of previously reviewed medical records (n=2987) was screened with the software program. Several models with various limitations on input data were tested to identify the most optimal way to predict the outcome of the previous analysis. In this study we compared the original data with the results from text mining on AE accuracy (total of true positives and true negatives divided by the total number of cases), precision (positive predictive value), specificity and recall (sensitivity). To gain insight into the value of the various documents, several selections were made to experiment with. In light of our goal to reduce the number of cases that are scrutinized without an AE, especially the specificity of the method should be high. However, in order to correctly exclude cases from further investigation for AEs, sensitivity is also important. The best performing model is based on accuracy, precision and recall and are therefore important outcome parameters.

Outcome

The goal of the first experiment was to determine which dataset is most useful to use in the other experiments. The dataset containing the last three letters of the medical records seems the most promising and was therefore used in the other experiments. In the next experiment all models were trained, optimized and tested with use of this best-fitted dataset. The most optimal performing model was the support vector machine (SVM). SVM is a supervised learning model with associated learning algorithms that analyze data mostly used for classification issues. With this model, we found an accuracy of 82%, a precision of 76%, a specificity of 95% and a recall of 44%. In the last experiment, we have attempted to predict the preventability of an AE. The SVM model then showed comparable results as for the prediction of the presence of an AE. Finally, time needed to analyze the data is restricted to applying the software program and generate the results, which takes only minutes.

Conclusion

Depending on the chosen model, this method could replace the current trigger system. Because the software does not only detect triggers but also AEs and their preventability it might also provide the specialists, who scrutinize the records, with valuable information about these AEs. This might shorten their time spent on searching the records. Furthermore the method allows efficient pre-selection of suspect cases from all patient-files, not only patients who die during hospitalization. Finally, the outcome of this study can be used for a cost estimation of both methods. This

method should be evaluated in a prospective manner to estimate its real value. We realize this is just a small part of the whole process for the improvement of patient care. The outcome of an analysis should be translated to clinical practice. Further research into the impact on patient safety is therefore needed.

Reducing Do-not-attends in outpatient psychiatry

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Background

In 2016, we began a quality improvement initiative that aimed at reducing the number of patients who did not attend their appointment (DNA's) at the District Psychiatry in Roskilde, Denmark by 25 percent by the end of the year. The clinic is an out-patient psychiatric facility which treats long term and chronicle patients between the ages 18-75. The clinic focuses on psychotic diseases, depression and personality disorders. On any given day, there are 1000 patients enrolled in the clinic and 250 patients visit the clinic each week. The clinic had a baseline at 12,3 percent DNA's each week which meant a poor use of capacity, lower quality in treatment, time and money spend on administration rather than on treatment, frustration among the staff, etc. The improvement team comprised of 7 people: 2 improvement advisors from a centralized, regional department and 5 subject matter experts from the clinic.

Methods

Data showed that in a six month period 65 percent of patients attended their appointment; 30 percent of the patients had between one and three DNA's (60 percent of the total DNA's); 5 percent of the patients had more than three DNA's (40 percent of the total DNA's). Although many patients reported that they had simply forgotten the appointment, subject matter experts explain that in cases where patients have more than three DNA's there is something else going on – oftentimes related to the mental condition itself. We opted for a dual improvement strategy: In regards to the patients with between one and three DNA's, we focused on a more effective system for text reminders and a nudging poster in the waiting room. In regards to the patients with more than three DNA's, we focused on changes that targets individual aspects and a new practice for discontinuing and re-booking patients. A total of 34 PDSA cycles were conducted through the project.

Outcome

By the end of 2016, DNA's had declined by 22 percent compared to the baseline and we felt confident, that we had not yet seen the full effects of all the changes implemented. By June 2017, the reduction in DNA's was at 30 percent and holding! We have estimated that a 30 percent reduction in DNA's results in US \$77.800 on salaries each year now being spend on the treatment of patients rather than on waiting on them. We have also estimated that a 30 percent reduction in DNA's results in US \$13.000 saved each year on added planning and re-booking of patients. The clinic reports on a better work climate with less frustration and stress among the staff.

Conclusion

One key learning from this project is that quality improvement takes time, consistency and leadership. We were fortunate to have the head of the clinic as part of the improvement team and this was without any doubt a fundamental condition for the success.

Another key learning is the great potential that resides in the cooperation between IA's and subject matter experts. This project could not have succeeded in reaching its aim without one or the other. However, the interaction between subject matter knowledge and improvement knowledge can also be a place for confusion, misunderstanding and frustration. We should be aware of this fact and allocate time and effort into the team, i.e. mutual understanding and team spirit. Real improvements are always going to be "all together or not at all".

Improve the effectiveness of communication within medical care delivering.

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Background

- Patient-centered medical care model has become a trend. The handoff completion rate via information system was 51.6% from June to September 2016, which was way below than threshold (90%) in Kaohsiung Medical University Hospital, Taiwan.
- We survey some possible causes for low handoff rate are as follows:
 1. 1)No essential handoff criteria had been established.
 2. 2)Increasing staffing's handoff loading by using paper format.
 3. 3)Handoff information system had not been utilized to its full potential, resulting a confusion among medical caring teams whether the physician had initiated the handoff system or not.
- The definition of handoff completion rate is each handoff matter can be replied by on duty physician and nurse.
- We expect to increasing the handoff completion rate within physicians over to 90%.

Methods

The strategy and interventions were as follow:

1. 1)Reviewed SOP and formulate seven essential handoff items(a-g) in the hospital.
2. 2)All essential handoff items were brought out automatically by informatic system.
3. 3)The system would link to physician who is on duty automatically to ensure all handoff had been performed.

seven essential handoff items include:

- a) On critical
- b) Transfer out form ICU
- c) Life-threatening critical results (8 items)
- d) Major operation or major procedure (130 items)
- e) Inpatient with emergency CT scan
- f) Blood transfusion orders on duty time
- g) New patient transferred from ER to admission

Outcome

•Handoff completion rate were traced via informatic system by each clinical department and provided relevant data to them monthly.

•In October 2016, completion rate had increased to 75%.

- In May 2017,after the second intervention, completion rate had reached 94.5% and a stable trend could be observed ever since. The effect has improved significantly and achieve to the threshold (90%).

Conclusion

- The International Patient Safety Goals (IPSG) in JCI Standards also emphasizes to improve effective communication. Users' habits would need to change during the beginning of this system establishment. Inspection was performed by Quality Management Department and feedback to directors of each clinical department.
- To disseminate effective communication in the hospital, Quality Management Department can also review handoff timing within departments. Utilization of SBAR model to deliver important messages and a collaborative channel by TRM could enhance the awareness of effective communication in the hospital.
- Continuing care is an important issue in patient-centered medical care. Deliver clear and complete patient information within the units and among interdepartmental teams is the foundation to construct a safer medical environment.

HAND PROJECT

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Background

HAND (Hand Assessment aNd Documentation) is a project underway in the Royal Victoria Hospital (RVH) Belfast. The RVH is Northern Ireland's largest hospital site providing over 20% of the acute care beds in Northern Ireland and treating over 100,000 patients annually. Almost two thirds of the Belfast population live within 40 minutes travel of the 70 acre site which is a few minutes drive from Belfast city centre. The RVH is part of the several interlinked hospitals within the Belfast Health and social care trust (BHSCT). The author is currently developing HAND (Hand Assessment aNd Documentation), a project to improve patient care with regard to hand injuries in the Emergency Department.

Methods

A review was focusing on 5 targets/standards set as per RCEM guidelines. These guidelines include pain management as per RCEM standards, dominant hand documented, mechanism of injury documented, document evidence that tendon injury excluded, documented evidence that nerve injury excluded. Staff groups involved a multidisciplinary approach including medical staff, advanced nurse practitioners, emergency nurse practitioners and nursing staff. The project commenced in August 2017 and will run throughout 2017/18. Awareness of the project is key to implementing this change process, Patient feedback will be requested throughout this time to ascertain if improvement has been made from a patient perspective and improving the human perspective of the ED management. The project also feels that teaching is key with wound management tutorials and suturing workshops to improve clinical confidence and technical skills within this field.

Outcome

The HAND project has increased the rates of adequate assessment of the hand injury patient presenting to the emergency department as per the 5 RCEM Standards from an average of 66% in Aug 2017 to 88 % in April 2018. Secondary effects of change will include improved confidence within the ED medical team of managing both minor and more catastrophic hand injuries through different modalities of training and use of inter-specialties to assist with this.

Conclusion

In summary this project has increased the compliance of documentation and assessment of hand injuries within the ED in accordance with the five RCEM guidelines.

Improving Quality Together project - Developing a tool to enhance communication within Surgical Team.

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Background

Peony Breast Care Surgical Unit is situated in Prince Phillip Hospital, a District General Hospital in Wales, UK. The Surgical team delivers services ranging from benign breast care to cancer care and complex Oncoplastic reconstructive procedures. The theatre list is run by multidisciplinary teams and professionals who change daily.

Effective communication is crucial in effective delivery of patient care. Communication gaps and its effects were evaluated over a two-week observational study. It identified that erratic communication left members of the team uncertain of their roles resulting in poor planning, inefficient use of resources and ineffective time management.

A spot analysis of team members was conducted assessing individual beliefs and attitudes. It explored potential avenues to improve the communication within the team and the value of Team Briefing activity.

The Quality Improvement project aims at implementing standardized Team Brief tool over a 4-6 month period.

Methods

This project applies IQT (Improving Quality Together) Model widely used in NHS to improve quality of services.

What are we trying to accomplish?

To improve communication of vital details, enhance clarity of roles and increase productivity of teams.

How will we know that change is an improvement?

WHO recommendations and evidences show team briefing in surgical theatres improves clinical effectiveness. We intended to study the effects of Team briefing in our team.

What change can we make that will result in improvement?

1. To introduce regular team briefing and ensure 100% compliance.
2. To create a purpose designed team briefing proforma for Breast care unit which addresses the vital information required by the teams.

The change was implemented following the IQT principles using a series of PDSA (Plan, Do, Study, Act) cycles.

Outcome

PDSA cycles

- 1 Raising awareness of team briefing by sharing evidence behind WHO recommendations – The keen members initiated team briefings beginning the culture.
- 2 Generating team ownership of the QI project and Setting a Project launch date - The team leaders felt the responsibility and having a start date made them commit to the change.
- 3 Providing feedback on progress to consolidate change - The team members could see the reality and reflect on how to make things better. We looked at the vital details discussed at team briefs creating clarity to the team members. The improvements / changes suggested were discussed during the feedback process.

4. 4 Creating a purpose designed Proforma to be used during Team briefs - The team found an agreed format/ proforma useful in directing their discussions.
5. 5 Auditing the debrief / feedback forms after introduction of the proforma - There was 100% compliance, all vital information discussed as ascertained by at the debriefing sessions.

Conclusion

The key drivers that facilitate implementing change were understanding staff perceptions and active engagement. Staff survey and feedback sessions were critical in gaining these insights. The key barriers to the progress of this QI Project were the time taken to conduct a team brief, resistance from senior professionals with pre-set hierarchical ways of working and lack of similar changes in other units.

This project enhanced the communication within the Team, effective working of theatre lists, improved patient care and safety. It is now ingrained as standard practice and the team has taken ownership of the QI project. Use of a standard QI Model and following it systematically underpinned the success of this project. The Stakeholder engagement is key to success and sustainability of any QI project.

Implementing evidence based practice: An audit of Intermittent Pneumatic Compression (IPC) prescription in stroke at a district stroke centre.

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Background

Deep vein thrombosis and pulmonary embolism are known to be preventable, yet remain common adverse events associated with acute illness and hospital admission. The CLOTS III randomised control trial demonstrated that "IPC is an effective and

inexpensive method of reducing the risk of DVT and improving survival in immobile stroke

Patients." (1). DVT risk is highest amongst stroke patients following immobilisation and NICE (CG 92) recommends application of IPC devices and documentation of a decision for or against them in this high risk patient group. Despite national guidance and a generally well informed medical workforce on this priority issues inadequate levels of safe prescribing with the aim of venous thromboembolism prevention occurs in the stroke subset of patients due to the general unsuitability for more familiar chemical prophylaxis employed amongst the general medical and surgical patient populous.

Methods

Regular audit against NICE standards over a 6 month period was conducted

of new admissions to a district stroke centre with a diagnosis of stroke and immobility.

Cycle 1: On unit teaching and quizzing of

all clinical staff types and grade was conducted over a month long period. The aim was to improve awareness of the importance of IPC devices in preventing DVT, to increase its rate of appropriate prescription and to promote of culture of advocacy of such intervention to our patients.

Cycle 2: Drug charts were modified and instructional posters were disseminated over a 2 month period. The aim of this intervention was to capture doctors clerking patients out of hours who are hard to reach with targeted teaching sessions as outlined above. Out-of-hours (OOH) medical doctors are often non-specialists in stroke and therefore are less likely to be aware of the most current best practice.

Cycle 3: Audited the above and demonstrated the interventions worked.

Outcome

Cycle 1: 62% (N=21) of patients had IPC prescribed.

Cycle 2: 31% (N=13) of patients had IPC prescribed. This demonstrates a decline in prescription of IPCs however it was accounted for by the OOH doctors low rates of prescription when they admitted stroke patients. This data subdivided shown that 100% (N=4) of patients clerked by the stroke team had a prescription when indicated whilst 0% (N=9) of patient admitted by the OOH doctors had IPC prescribed. The next intervention was targeted specifically to alter this groups prescribing habits resulting in a simple intervention strategy. An easy to follow label including indications and contraindications to IPC that was not onerous or complicated was placed in the drug charts on our ward.

Cycle 3 had demonstrated the label as effective in changing prescription habits demonstrating an increase in prescription of IPC by the stroke team to 100% and OOH doctors to 74%.

Conclusion

A comprehensive approach to MDT teaching and simple non-onerous system modification can change prescribing habits in line with expected standard as demonstrated by this quality improvement project's improvements in IPC device prescription. The stroke team had improved compliance to national standards following on unit teaching alone. 62.5% of new admission came out of hours however leading to delays in decision for IPC device and lack of appropriate prescription. Modified drug charts with a simple label to guide prescribing and instructional posters had successfully increased prescription of IPC devices by non-stroke clinicians clerking out of hours further increasing compliance to UK national expected standards of care.

Pragmatic and inexpensive changes to the working environment can result in tangible improvements in front line care without over burdening staff with proforma and additional paperwork.

Does a telephone service provided by experienced GPs outside office hours improve elderly care?

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Background

ESSOTE (South Savo Social and Health Care Authority) provides integrated primary health care, special health care and social services for a population of 102,500. Of these, 12.1% were aged over 75 years. Decreasing inpatient capacity has resulted in a need to increase the medical competence of elderly care staff. Acute progressions of chronic conditions or new diseases may cause rapid deterioration of general condition, resulting in emergency clinic visits and hospitalisation. Outside office hours, elderly care staff call busy emergency clinics for advice. The threshold for a telephone consultation is high and clinics' expertise in older people's issues varies. The elderly care telephone service was launched in 4/2016. The service provides a flexible specialised consulting possibilities for 910 nurses to support the care of 6000 elderly. The model is based on the assessment that early intervention can prevent hospitalization.

Methods

Five experienced GPs (7+ years of experience in elderly care) were hired to provide a telephone service (weekdays 4–10pm, weekends and holidays 9am–10pm). The doctors answered consultation calls from home care, assisted sheltered housing, service guidance and primary health care wards. The doctors worked from home and had access to electronic patient records. Some units provided CRP measurements and ECG to support decision-making. Emergency clinic, inpatient care and hospital-at-home services were also available. Doctors could prescribe IV fluids or antibiotics. Consultations were based on the ISBAR model/ Evaluation was based on a structured monitoring form, which doctors used to record 388 calls during the monitoring period (4–9/2017), corresponding to 41–58% of all calls. 325 calls concerned elderly care, of which 97 concerning deterioration of general condition were analysed via the electronic patient records.

Outcome

The analysis covered the doctor's ability to identify patients needing emergency treatment, the effectiveness of provided instructions and whether an emergency clinic visit was prevented. The attitudes of professionals were surveyed using a structured web-based questionnaire.

With the telephone service's instructions, 87% of cases involving deterioration of general condition (n=97) could be treated at home. Doctors identified the need for emergency care well (sensitivity 86%, specificity 97%). Both doctors (n=5) and nurses (n=68) considered the service very useful.

Conclusion

The treatment of older people can be streamlined and implemented safely by providing staff with support from experienced GPs.

1. A telephone service provided by GPs outside office hours seemed to reduce the need to send clients to emergency care from home care and sheltered housing.
2. Participants considered the service useful.

This study showed that there has been a need for a telephone service. It also raised further development needs, especially in regard to clinical documentation and advanced care plans.

A SURGICAL PATIENT SAFETY OBSERVATION TOOL (SPOT):

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Background

Worldwide, improving patient safety remains a major public health concern. Almost two thirds of in-hospital adverse events are associated with perioperative care. Improvement in perioperative patient safety can be achieved by observing and measuring patient safety performance and by using the results to improve the perioperative process in a Plan-Do-Check-Act cycle. Currently, there is no standardized and validated perioperative patient safety observation tool available to characterize the safety of daily clinical practice. We aimed to develop and test a comprehensive and easy-to-use observation tool to facilitate monitoring and benchmarking perioperative patient safety performance across departments and hospitals, covering (inter)national patient safety goals.

Methods

Nineteen perioperative patient safety observation topics were selected from Dutch perioperative patient safety guidelines, also covering international patient safety goals. Subsequently, all items that measured these selected topics were extracted from available local observation checklists of the participating hospitals. Experts individually prioritized the best measurement items per topic in a first written Delphi-round. The second (face-to-face) Delphi-round resulted in consensus on the content of SPOT, after which the measurable elements (MEs) per topic were defined. Finally, the tool was pilot tested in eight hospitals on measurability, applicability, improvement potential, discriminatory capacity and feasibility.

Outcome

The pilot test showed good measurability of all 19 patient safety topics (range 8-291 MEs among topics). Also good applicability was shown (median 97%, range 12%-100%); lowest scoring topic turned out to be Pre-time-out, applicable only in 12% of procedures. The overall improvement potential on topic level appeared to be good (median 89%, range 72%-100%), meaning sufficient room for improvement of compliance was shown. Also, a good discriminatory capacity of the tool was shown on topic level (variation 28%, range in compliance 72%-100%). Overall scores showed relatively little variation between the participating hospitals (variation 13%, range in compliance 83%-96%). All eight auditors considered SPOT a straight forward and easy-to-use tracer tool.

Conclusion

A comprehensive and easy-to-use tool to measure safety of care was developed and validated using a systematic, stepwise method enabling hospitals to monitor, benchmark and improve perioperative safety performance. The pilot tests showed that SPOT is a suitable and easy-to-use tool to identify patient safety risks in the perioperative process. Besides the surgical disciplines, this SPOT concept can be easily transferred to other medical specialties and interventions, like radiology, cardiology, bronchoscopy and endoscopy. The SPOT list is available on request.

Implementation and evaluation of primary health care management guidelines for childhood atopic eczema

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Background

The study was conducted in the public health sector: Central Gauteng, South Africa, where primary health care (PHC) is the entrance level into the system. PHC nurses are the first healthcare workers who assess, diagnose and treat patients and refer to inter-professional team members when necessary. The focus of this study was PHC nurses and parents of children suffering from atopic eczema (AE). The World Health Organization stated the worldwide increase in allergic diseases, of which AE is one. The majority of people with allergic conditions are treated by healthcare professionals not trained in allergies; this is also true for South-African PHC nurses.

Methods

Phase one: A qualitative, explorative, descriptive, contextual research design with a single embedded case study method was utilized. The objective was to explore the experience of PHC nurses and parents of children suffering from AE on the management of the AE. In-depth individual and focus group interviews, direct observation, field notes and documentation were used for data collection until data saturation occurred. Data was transcribed into textual format. The researcher and independent coder conducted thematic analysis. Three main themes emerged: Physical, emotional, social and financial effect of AE; management challenges; recommendations. Phase two: Development and validation of PHC management guidelines for childhood AE, based on the phase one results, through input of various stakeholders and experts nationwide following the AGREE II Instrument. Phase three: The guidelines were implemented and evaluated in randomly selected clinics in the Central District of Gauteng.

Outcome

The original research problem that PHC nurses are not specifically trained to manage atopic eczema is being addressed. The third phase of the research project was to pilot the implementation and evaluation of the developed PHC management guidelines for childhood atopic eczema. The results of the third phase indicated that PHC nurses felt empowered to diagnose and treat AE in children more effectively. Parents were pleased with the complete emollient treatment and health education received on skin care and environmental trigger control measures that lead to better control of AE. Both parents and PHC nurses indicated that it was important to persevere with the dual strategy of complete emollient therapy and managing of environmental trigger factors in order to see an improvement in the children's AE. The way forward is to train more PHC nurses in AE and the use of the guideline. A problem encountered is the availability of enough emollients which is constantly addressed.

Conclusion

The provision of a management guideline and training on AE for PHC nurses, empowered them to deal with childhood atopic eczema for effectively. Parents felt more in control of their children's AE and were pleased with the improvement seen when they followed the management instructions as provided by the PHC nurses. The main messages learned and that I would like to share are:

- Although many PHC nurses were initial resistant to use guidelines, the improved AE in children treated according to the guidelines motivated more PHC nurses to use it.
- Guidelines must be easy to use and must focus on essential elements in order to make it user friendly.
- Training of PHC nurses does not guarantee change in actions.

- Effective implementation of guidelines needs a lot of support and encouragement in order to motivate the PHC nurses to use them.

Reducing superficial surgical site infections by two thirds in lower GI surgery

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Background

Stavanger University Hospital (SUS) is a teaching hospital with 7,600 employees, caring for a population of 365,000 inhabitants. The department of gastroenterological (GI) surgery is divided into upper and lower GI, in total performing 2160 surgeries per year. Lower GI performs all colorectal surgery, excluding recurrent rectal cancer and cytoreductive surgery.

Intervention was done in lower GI surgery. A multidisciplinary team consisting of ward and operating room nurses and surgeons worked on reducing superficial surgical site infections (SSI) in all patients undergoing lower GI surgery at SUS.

Methods

We went through existing procedures at SUS, and supplemented with relevant literature and made a bundle consisting in

- Interval of prophylactic antibiotics – incision (we use oral doxycillin and metronidazole, the interval should be minimum 2 hours)
- Glove change after anastomosis
- Reducing traffic in operating rooms
- Interval skin closure – dressing removal (in current practice not documented, although our procedure advocates 48 hrs)
- Individual hand disinfection for all patients on bedside table.
- Random inspection of employees dressing (clean scrubs, no jewellery/watches)
- Adding points on whiteboard of SSI yes/no and antibiotic status (none/oral/iv)
- Adding infectious disease specialist to whiteboard meeting twice weekly to focus on correct antibiotics.

The bundle was supplemented by nudging with regards to hygiene and wound change procedures at relevant opportunities.

Outcome

In the period from 1st of January 2015 to 4th of October 2016 the rate of superficial SSI was 10,4% (299 included patients). In the period from 5th of October 2016 to 5th of July 2017, the corresponding rate was 3,1% (128 included patients) ($p=0,012$). As a balancing measure, the use of antibiotics in the inclusion period was monitored. As shown in another abstract it decreased by 30%.

Conclusion

SSI being a major source of morbidity, and even mortality, reduction is of patient benefit. It potentially frees resources to be used for other patients (beds, operating facilities). Lastly, one should not forget about the healthcare workers own satisfaction in reducing harm to patients. We were able to get all stakeholders involved and to take ownership. The resulting team spirit and effort that made a reduction possible. We are currently working on reducing all SSI, and broadening the project to other operating specialties.

Our project shows that even in a rich country like Norway, quite simple, but structured interventions can significantly reduce SSI.

Q177

To Improve the Proportion of Appropriate referrals to the PACE-CVM Round, from baseline 30% to 100% over 6 months

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Background

The Pre-Admission Counselling and Evaluation (PACE) Clinic performs pre-operative assessment for elective surgical patients. Pre-operative Cardiology (CVM) referrals formed the majority of PACE's referrals. Since 2015, we introduced the PACE-CVM Round: a weekly review of referrals without physical presence of the patient.

The proportion of appropriate referrals was low: only an average 30% of referrals required further evaluation/optimization.

Inappropriate referrals lead to:

1. Unnecessary patient anxiety
2. Delayed confirmation of surgery.
3. Resource wastage: every referral involves manpower of at least a junior doctor, 2 consultants and a nurse. Average time taken to complete one referral was 28mins.
4. Clinician dissatisfaction for both referring and receiving doctors.

This project focused on improving the proportion of appropriate referrals to the PACE-CVM Round, from baseline 30% to 100% over 6 months

Methods

The team was co-led by an Anaesthetist and a Cardiologist, and included clinicians (1 anaesthetist, 1 cardiologist, 1 PACE resident physician) and PACE nurses. Diagnostic journey was performed in August 2016, using Clinical Practice Improvement Programme (CPIP) methodology. The main root causes were identified as lack of and/or mismatch in knowledge related to

- a) peri-operative significance of cardiac conditions and
- b) interpretation of pre-operative cardiac investigations.

Primary intervention was to formulate and implement a set of consolidated Cardiology referral guidelines. Literature search was performed, using established international guidelines and combined discussions held to achieve concordance and tailor guidelines to our local institutional practice. The proposed guidelines were ready in September 2016, and presented to both departments in October 2016, with adequate time allowed for feedback before implementation in November 2016.

Outcome

Primary Outcome: Proportion of Appropriate Referrals

- Over the 6 months of the project: there was significant increase in the proportion of appropriate referrals. Target goal of 100% was achieved in 12 out of 23 weeks. Average weekly appropriateness levels improved to 89%.
- Absolute numbers of inappropriate levels decreased significantly, from average 15/month, to 2.5/month.

- Following completion in May 2017, continual tracking showed ability to sustain results with intermittent feedback provided to relevant staff

Other improvement outcomes:

1. Patient:

Decrease in unnecessary anxiety.

Facilitated timely listing and confirmation of surgery.

2. Clinicians:

Enhanced up-to-date knowledge

Improved agreement and concordance between Cardiologists and Anaesthetists.

Increased satisfaction for specialists performing a round that is efficient and relevant.

Time saved of up to 6hrs/month, allowing better productivity

Conclusion

Through this project, we learnt about the importance of

1. A systematic approach and methodology to problem-solving
2. Involvement and buy-in required from various stakeholders
3. Cherishing small successes and continuous monitoring of outcomes, to maintain sustainability of project

The project was able to achieve its intended outcome of significantly increasing the proportion of appropriate referrals.

But beyond the statistics, we emphasise that our patients are our key customers, who will benefit from the impact of our quality improvement projects. It was also satisfying for clinicians to realise the importance of breaking down barriers and allowing open communication between specialists, to improve care for our patients

Early findings: The experiences of General Practitioners (GPs), Community Pharmacists (CPs) and people who use electronic repeat dispensing (eRD) services in Wessex

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Background

Wessex Academic Health Science Network (AHSN), working with the Centre for Implementation Science (CIS), University of Southampton (UoS), are undertaking an exploratory study of the views and experiences of GPs, CPs and people who use eRD services in Wessex.

This is to gain a better understanding of possible factors contributing to why the average level of use of eRD is lower (8.8%) in Wessex in comparison to the average of 12.2% in England (NHS Business Services Authority, 2017).

The aim is to explore the views and experiences of GPs, CPs and people who use eRD services in Wessex. The objectives are to explore:

- i. Enablers/barriers to use
- ii. Which people using eRD services may benefit most/least
- iii. GPs/CPs experiences of working with each other and other health professionals
- iv. Experiences of people who use eRD services
- vi. If and how any improvements can be made to how eRD is used within practice
- vii. Long-term enablers and barriers in implementing eRD

Methods

Up to 40 telephone interviews with up to 24 participants: 2 rounds of telephone interviews with up to 8 GPs and 8 CPs and 1 round of telephone interviews with up to 8 people who use eRD services will be employed. An electronic online survey will also be hosted to explore the experiences of people who use eRD services in Wessex.

The GP and CP arm of the study has received ethical approval by University of Southampton Research Ethics Committee. Ethical approval is currently being sought to explore the experiences of people using eRD services in Wessex.

Outcome

Early thematic findings: These are based on a small sample of 4 telephone interviews conducted with 2 CPs (2 first round and 1 follow-up interview) and 1 GP.

- CPs and GP experiences of using eRD: improved continuity and convenience for patients, need for communication between health professionals, issues with different information technology systems.

- Perceptions of factors influencing patient benefit of using eRD: number, regularity and complexity of medicines.
- Improvements: Consistency in IT systems, training and resources for staff, engagement with staff and changing perceptions of work involved in using eRD.

Anticipated benefits of study:

- Holistic insight exploring the views and experiences of GPs, CPs and people who use eRD services to understand barriers and enablers to eRD use.
- If and how any improvements can be made to how eRD is used and implemented within practice.

Conclusion

- To understand the use of eRD requires a holistic approach exploring the views and experiences of GPs/CPs/people who use eRD services as well as the socio-economic, political and cultural context of a locality.
- Such an exploratory study will be of use to Wessex 10 Clinical Commissioning Groups (CCGs) and to policy makers. Findings could be transferable to other localities where the average level of use of eRD is lower in comparison to the average of 12.2% in England (NHS BSA, 2017). Transferability is dependent upon the socio-economic, political and cultural context of a locality.

To hydrate or not to hydrate_AMACING

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Background

Iodinated contrast material is used for diagnostic and interventional procedures such as CT scans and coronary interventions and is injected over 80 million times each year worldwide. Guidelines on the safe use of intravascular iodinated contrast material exist in most countries. One of the main aims of these guidelines is the prevention of contrast-induced nephropathy (CIN), and acute post-contrast deterioration in renal function. The main recommendation for prevention is prophylactic intravenous hydration with normal saline 4-12 hours before and 4-12 hours after contrast administration, which requires hospitalisation. Despite global implementation, before the AMACING trial clinical- and cost-effectiveness of this prophylactic hydration treatment in protecting renal function had not been adequately studied in the population targeted by the guidelines, against a group receiving no prophylaxis.

Methods

AMACING is a randomised, parallel-group, open-label, non-inferiority trial of patients at risk of CIN according to the guidelines, with estimated glomerular filtration rate [eGFR] 30–59 mL/min/1.73 m², undergoing an elective procedure requiring intravascular iodinated contrast material administration. Exclusion criteria were eGFR <30 mL/min/1.73 m², previous dialysis, no referral for intravenous hydration, emergency- or intensive care status. Over a period of 25 months, consenting patients were randomly assigned (1:1) to receive no prophylaxis (H- group) or standard prophylactic intravenous hydration with normal saline (H+ group).

AMACING is registered with ClinicalTrials.gov: NCT02106234. CIN group MUMC+ is an interdisciplinary team from the departments of Radiology & Nuclear Medicine, Internal Medicine, Cardiology and Epidemiology of Maastricht University Medical Centre (E.C. Nijssen, P. Nelemans, R. Rennenberg, B. Essers, M. Janssen, M. Vermeeren, V.v.Ommen, J. Wildberger).

Outcome

From 28803 referrals, 1120 high-risk patients were identified. 660 consecutive high-risk patients agreed to participate. 332 were randomised to H- and 328 to H+. The results showed no prophylaxis to be non-inferior to standard prophylactic intravenous hydration in the prevention of CIN in the high-risk population studied (CIN incidence H- 2.6% vs. H+ 2.7%, $p=0.4720$). No prophylaxis was cost saving relative to intravenous hydration. 5.5% intravenously hydrated patients had complications associated with the prophylactic treatment (symptomatic heart failure, arrhythmia, and hyponatremia). No haemodialysis or related deaths occurred within 35 days. At 365 days no significant differences were found in dialysis (H- 0.61% vs H+ 0.60%, $p=0.9909$), or all-cause mortality (H- 10.84% vs. H+ 9.76%, $p=0.6490$). Cox regression analysis resulted in a non-significant hazard ratio of 1.118 (H- vs H+) for 1-year risk of death (95% CI: 0.695 to 1.801, $p=0.6449$).

Conclusion

No prophylaxis is non-inferior and cost-saving in preventing contrast-induced nephropathy compared with standard

intravenous hydration according to current clinical practice guidelines. Therefore, assuming optimal contrast media administration, withholding prophylaxis for high-risk patients with eGFR $>29\text{ mL per min}/1.73\text{ m}^2$ can be considered without compromising patient safety. Withholding intravenous hydration will avoid unnecessary complications of the prophylactic treatment, considerably reduce hospital and patient burden, and will result in health care budget savings of €50-100 million a year in the Netherlands alone.

Publication Nijssen et al. Prophylactic hydration to protect renal function from intravascular iodinated contrast material in patients at high risk of contrast-induced nephropathy (AMACING): a prospective, randomised, phase 3, controlled, open-label, noninferiority

trial. The Lancet. 2017;389:1312-22.

Route to successful implementation of integrated risk management sought

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Background

The world of hospitals has changed profoundly in recent years, due to the increased (external) risks for hospitals, the implementation of the Safety Management System (SMS) and the fact that more and more external stakeholders expect hospitals to practice Enterprise Risk Management (ERM). This all has moved MST to start with the implementation of ERM at hospital level in 2017. MST expects to gain more control in fulfilling its targets, while better meeting expectations of its external stakeholders. In order to gain more control within the groups and Result Responsible Units (RRU's) as well, in both achieving targets and explicitly provide accountability about (dealing with) their biggest risks, MST has started implementing ERM on group level mid 2017.

Methods

In order to provide an answer to the research question, the current state of risk management methods, organization structure and culture and human and skills in MST and the requirements of external stakeholders are mapped using document analysis and the analysis of the employee survey. Furthermore, both risk management and innovation management literature was researched to find the conditions the risk management methods, organization structure and culture, and humans and skills need to fulfill in order to successfully implement ERM. In order to realize those conditions, literature on change management was researched on appropriate interventions for implementing innovations in health care. Based on the structure of the concept model of Van Staveren (2009) for the implementation of ERM in the construction industry and the conditions and interventions found in the literature, an initial concept model is developed and tested in internal and external interviews.

Outcome

The impact of using the concept model is an increased likelihood to successfully implement ERM. This in turn will help MST to realise its goals, amongst which patient centred care and increasing the quality and safety of care. Since MST has not implemented integrated risk management at the RRU-level yet, it is not possible to outline problems during the process of change. The research did provide insight to possible barriers for the implementation, amongst which time, lack of knowledge about risk management, lack of priority and dispersed responsibilities.

Conclusion

For successful implementation of IRM in the Thorax Center and the RRU Neurology a concept model has been developed for the implementation of IRM in the Thorax Center and the RRU Neurology. The developed concept model provides specific conditions for methods and instruments, organization structure and culture, and humans and skills. The realization of those conditions and methods is key for the successful implementation of ERM in the Thorax Centrum and RRU Neurology. The analysis of the current context gives useful insights about the necessary conditions. To realize these conditions and achieve commitment and motivation with users, user group specific interventions need to be done, related to five intervention aspects (mechanisms). Not all conditions and interventions were confirmed in the interviews. It is important to keep the context in which the model is deployed in mind, as well as the recommendations from the interviews.

Dutch obstetric care: how liability risk management requires patient participation in debriefing

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Background

With incidents and claims in obstetric care – thankfully – occurring few and far between, there is only so much you can learn from them. This is why Safety-II focusses on what goes right, instead of what went wrong. In a pilot in Dutch hospitals, clients participate in obstetric team debriefing after delivery. In an implementation study, the postpartum team debriefing with a special debriefing instrument was evaluated. The purpose of the debriefing project is to continuously evaluate and improve team functioning and to optimize the quality of care.

Methods

An evaluation study looked at change in experienced collaboration between care providers through the Obstetric Collaboration Questionnaire, the safety climate through the Safety Attitude Questionnaire and the perceived quality of care by patients through the Pregnancy and Childbirth Questionnaire. In a pre-test in May 2017, 176 care providers and 133 parents of newborn babies completed a questionnaire. An intermediate evaluation took place in September 2017 and the final evaluation in January 2018.

Outcome

The research shows that the debriefing has a positive effect on the safety climate. The debriefing is not yet routine, but at this stage it already shows some effects on the collaboration in teams and the perceived quality of care.

Conclusion

Structural involvement of patients in a Safety-II postpartum team debriefing, and acknowledging them as full team members, offers the obstetric team a perfect opportunity to co-create a better patient safety culture around delivery. At the same time, it offers a unique possibility to address and restrain potential liability risks in an early stage.

Managing Atrial Fibrillation in the Emergency Department in Northampton General Hospital

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Background

Northampton General Hospital (NGH) is a busy acute hospital that provides general acute services to a population of 380,000. There are typically 350 attendances to the emergency department (ED) every day. Atrial fibrillation (AF) is the most common sustained cardiac arrhythmia, and estimates suggest its prevalence is increasing. If left untreated AF is a significant risk factor for stroke and other morbidities. Men are more commonly affected than women and the prevalence increases with age.

In NGH there are around 50 patients presenting with isolated AF every month. Prior to the start of this project patients presenting to A&E out of hours were typically admitted, despite no further inpatient treatment being necessary. The justification for this practice was attributed to local policy mandating a cardiology consultant review was required before the patient could be discharged. It is well recognised that patients presenting with AF can be safely managed in the outpatient setting.

Methods

The Ambulatory Emergency Care Pathway has been developed with the involvement of consultants and junior medical staff in Cardiology and Emergency Medicine. It is well-recognised that recognition and management of atrial fibrillation is of significant importance in prevention of stroke and other morbidity, but this can be done in the outpatient setting.

The pathway is designed to be used by the ED medical team, and gives guidance on the initial assessment and management, safe discharge and onward referral of appropriate patients with confirmed atrial fibrillation or flutter. It is also important that other underlying conditions are treated separately, as indicated in the pathway.

This pathway is not designed for general management of supraventricular tachycardia, for which a separate pathway is available.

This pathway was taught during daily brief teaching and during junior doctor induction.

Outcome

The outcome measure for this project is the percentage of patients discharged, as a proportion of the total number of patients presenting to the ED with isolated atrial fibrillation. We have seen a significant improvement in this measure since the introduction of the pathway. The discharge rate has increased from 38 % to 64 %.

A financial measure has also been included for this project, which is associated with a reduction in inpatient bed days and an increase in outpatient treatment for the patient cohort. There is a total annual cost saving to the trust of over £49,000, which equates to an additional 140 patients avoiding inpatient treatment.

Conclusion

In this quality improvement project we aimed to increase the discharge rate for patients presenting with isolated atrial fibrillation to the emergency department (ED) in Northampton General Hospital. In collaboration with the cardiology consultants and emergency department consultants, we have produced the Ambulatory Emergency Care Pathway to achieve this aim. This pathway is used by the ED medical team, and gives guidance on the management, safe discharge and onward referral of appropriate patients with confirmed atrial fibrillation or flutter.

Since the introduction of the pathway, the discharge rate for patients with a diagnosis of atrial fibrillation has increased from 38 % to 64 %. This equates to an additional 140 patients per annum who are no longer admitted to an inpatient bed.

Global Trigger Tool in mental health and substance abuse (GTT-P)

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Background

- A research, innovation and quality improving project in Nord-Trøndelag Hospital Trust

Global Trigger Tool (GTT) is an tool for reducing adverse events (AE) and systematize work with patient security. The tool has been used within somatic medicine for several years. Clinic for mental health and substance abuse HNT HF is the first clinic in Norway to use GTT for mental health and substance abuse. Injuries discovered through GTT is often not detected by other reporting systems.

Methods

A randomized selection of journals for inpatients and outpatients is evaluated. This totals 12% of all journals from patients discharged from the clinic.

Triggers (markers) are used to single out journals documenting potential AE.

Type of AE , as well as degree of severity and the avoidability of the injury, will be identified. A trigger can be the absence of a treatment plan, or lack of contact with next of kin. Extended course of treatment or illegal deprivation of liberty are examples of AE that likely can be avoided.

Outcome

By validating and implementing a Norwegian version of the screening instrument Global Trigger Tool (GTT-P), we will be able to detect possible adverse events within mental health and substance abuse at an early stage.

Conclusion

Implementation of this tool will increase knowledge about the causes of adverse events, and make us more capable of preventing such injuries.

Ultimately, patient security practice may improve, and the number of adverse events may be reduced.

Research is attached to all parts of the project.

Improving the quality of referrals to the emergency mental health team at Northamptonshire Healthcare Foundation Trust

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Background

Northamptonshire Healthcare Foundation Trust (NHFT) provides community services including physical, mental health and specialty services to 800,000 people. This project was carried out in the urgent care and assessment team (UCAT) in the south of Northamptonshire. The team works with patients who are mentally unwell, aiming to treat the patient in their home with the aim of avoiding admission to a mental health hospital where possible. The team includes a psychiatrist, a staff grade doctor, mental health nurses, occupational therapists, midwives, social workers, support workers and students. This project is supported by the Quality Improvement team at Northampton General Hospital. Referrals to the UCAT South team varied greatly in terms of their quality; often containing minimal information. Key aspects of a referral including clinical information and information used to determine the risk to the patient, to the public and to healthcare workers were often missing.

Methods

Interventions were made using the Model for Improvement and Plan-Do-Study-Act cycles. Both PDSA cycles involved amendments to the referral form, on both risk assessment information and clinical information. Initially, the referral form to UCAT South had a blank box for risks. There were no explicit prompts for important information and so it was often missing. To improve this, Yes/No options were added to the referral form. These options include risk to self, forensic history, history of violence to healthcare professionals and substance misuse. Similarly prior to this project, the clinical information was recorded in a blank box, with a title prompting for diagnosis, relevant historical information and details of any recent contact the referrer has had with the service user. Following a review of the information provided, the medical team decided to include additional prompts for core symptoms, duration of symptoms, recent life events and previous psychiatric diagnosis.

Outcome

The outcome measures for this project are the percentage of referrals with complete information for risk assessment and the percentage of referrals with complete information with complete clinical information. The percentage of referrals with complete information to support a risk assessment increased during this project from 20 % to 49 %. The percentage of referrals with complete clinical information increased from 45 % to 56 %.

There is scope to make an additional improvement in this measure as it was identified that a minority of referrals were made without any pro forma, however it is likely a large minority of referrals will never contain complete information for risk assessment or full clinical information as this is not known by the referrer.

Conclusion

Collecting more information from the referrer about the patient enables the mental health team member to complete a better initial risk assessment, prior to reviewing the patient. We have seen an improvement of 38 % in the percentage of referrals containing key information for risk assessment since the commencement of this project. This has declined slightly (9 %) following the second PDSA cycle, however this is most likely to be attributed to some staff members not having access to the new form. There has also been an improvement in the clinical information provided on the referral form of more than 10 %.

Reducing the incidence of blood culture contamination in Northampton General Hospital NHS Trust

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Background

Blood cultures are widely accepted as one of the most important investigations in an unwell and potentially septic patient. They allow for confirmation of bacteraemia and identification of the causative organisms involved and whether there is any antibiotic resistance. This is vital to patient care as it allows us to tailor antibiotics therapy as needed. Blood culture contamination has been an issue in hospitals worldwide and contaminants are often introduced in the sampling of the culture. This can be problematic for a number of reasons. It can complicate patient care, resulting in patients receiving unnecessary antibiotics or longer hospital stays. It may delay processing of samples with true bacteraemia – meaning patients that require tailored antibiotic therapy may be on an unsuitable antibiotic for longer. Contamination also is associated with increased processing costs.

Methods

Interventions were made using the Model for Improvement and Plan-Do-Study-Act cycles. The primary intervention for this project was teaching and educating staff on correct aseptic non-touch technique procedure for blood culture collection. This teaching covered areas with high levels of contamination such as the emergency department and the critical care department. Teaching was also delivered to all foundation programme doctors. A second intervention is planned for this project and involves the introduction of a new blood culture collection pack.

Outcome

The outcome measure for this project was the blood culture contamination rate in the hospital. Since the start of this project the rate has reduced from 4.2 % to 3.5 %. We hope to see a continued reduction in this measure following further training and the introduction of a sterile collection pack. The financial measure for this project related to a reduction in processing costs for the contaminated cultures, which totals more than £4000 saved per annum. We also anticipate a reduction in antibiotic consumption as a result of this project, given fewer patients will be given antibiotics due to lower contamination rates. This reduction equates to a cost saving of more than £34,000.

Conclusion

In this quality improvement project, we aimed to reduce blood culture contamination rates in the hospital by teaching staff correct aseptic non-touch technique for blood culture collection and highlighting the high levels of contamination in specific departments. A targeted education campaign has already produced positive results; we have seen a reduction in contamination rates from 4.2 % to 3.5 % in six months. We hope to see a continued reduction following further teaching sessions. This will be further supported by the introduction of a new collection pack. This project has produced financial savings of more than £38,000 since its inception primarily due to a reduction in antibiotic consumption, related to the reduction in contamination rates.

Working 'CLEVER' in midwife obstetric units in South Africa: addressing preventable stillbirths and adverse neonatal outcomes through improved intrapartum care

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Background

The study was conducted in 10 midwife-led obstetric units in Tshwane, South Africa. South Africa did not meet its Millennium Development Goal targets. For 2014/15 Tshwane District recorded a stillbirth rate of 20.5 per 1000 and an early neonatal death rate of 11.1 per 1000 live births in primary health care birthing facilities. The facilities also suffered from health-systems deficiencies and inequities between facilities. Around 50 000 deliveries per annum took place in public facilities with 18% of deliveries in the midwife-led units. In the 'Working CLEVER' study, we focussed on the provision of respectful and high quality obstetric care to birthing mothers. We considered the areas most in need of intervention for better clinical governance and reducing perinatal mortality and morbidity: local barriers in the health system and blind spots in critical thinking during obstetric care. To address these problems an intervention package called 'CLEVER' was developed and tested.

Methods

The study was a mixed-methods intervention at ten MOUs in the Tshwane District of South Africa with three phases: measurement of baseline conditions; application of the 'CLEVER' package in the five units during an intensive 3-month engagement phase at handover of shift; and review of perinatal outcomes. Team-leader midwives were nominated by peers in each unit to model best practices. 'CLEVER' is the acronym for: Clinical care, Labour ward management, Elimination of barriers, Verify and monitoring of care, Emergency obstetric drills and Respectful care. Sessions included handover rounds at each bedside with day- and night-shift midwives in attendance, one simulated emergency obstetric drill, a discussion of maternity guideline handouts, and discussion of respectful care. Quality care support visits to units continued monthly, while nominated team leaders met monthly during the following six months to collaborate and obtain further management skills.

Outcome

A comparison of the baseline and end-line results regarding changes in perinatal outcomes recorded significant improvement in the intervention MOUs during the implementation year (2016). Improvements in in-facility fresh stillbirths ($p=0.004$), meconium aspiration ($p=0.012$) and birth asphyxia ($p=0.001$) were sustained during 2017. Some improvement in the control units occurred with supportive supervision by the district clinical specialist team members. Preliminary results of the survey on mothers' experiences of childbirth point to improvements in experiences of care. Observations have also been made on changes from disorganised midwife units to units with motivated staff.

Conclusion

The intensive engagement phase of the CLEVER package implementation focussed on improving the quality of obstetric care, identifying blind spots in clinical management of intrapartum care, and reducing treatment delays. Routines and practices were formalised by adherence to change-of-shift handover rounds at the bedside, delivery of shared decision-making care and capacity building through simulated emergency obstetric drills and maternity guideline handouts. Stability was provided through the involvement of all levels of the district health services, including facility managers and a nominated champion in each MOU. The success of the package resulted from basic clinical obstetric care and

positive management. Involvement of all shifts working in delivery units is needed for uniform improvement in clinical care. CLEVER has the potential to reduce perinatal mortality rates in midwife-led units and improve survival and health for every newborn baby delivered at district health level.

Quality assurance for bone mineral density measurements using QCT and dose optimization

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Background

Research and practical center of medical radiology is the leading organization in Moscow that ensures quality assessment and assurance (QA) in radiology for enhancing quality, safety and efficiency of patient care in the radiology. The focus of this work is patients with a high risk of low-energy fracture. They are elderly people with indications to bone mineral density measurement. In Russia, population studies estimated that every third woman and one in four man over 50 years old are affected osteoporosis. Due to the need of performing more bone density testing, the use of installed computed tomography (CT) scanners was suggested. The problem lies in the inhomogeneity of the X-ray density in the CT slice plane caused by artefacts. So it should provide appropriate accurate and reproducible quantitative-CT (QCT) measurements. Moreover, the high patient dose limits the wide spread of QCT.

Methods

The periodic monitoring of the accuracy and reproducibility of the bone mineral density (BMD) data for QCT is performed. QA program is based on the developed phantom scanning and the analysis of the calibration curves. The phantom consists of two sections: cylinder and housing. These objects were filled with aqua solution of hydroxyapatite in different concentration. They were located along one line in the tank with physiological solution. On CT scanners with installed QCT we adjusted the low-dose protocols. The patient dose is monitored through Radiological Information System (RIS). As a feedback, we developed questionnaires for patients, indicating the quantitative results of previous scans (presumably DXA). Considering the peculiarities of QCT technology and the application of opportunistic screening, it is supposed to use such an indicator of the effectiveness of the proposed interventions, as the ratio of the number diagnoses changes to the patient dose.

Outcome

The dose reduction during CT-densitometry suggests the possibility of screening of osteoporosis. The goal of the dose reduction is a threshold of 1 mSv according to national regulatory documents. By the phantom study we determined the optimal low-dose protocol: 40 mA, 1.484 pitch, 120 kV for all patients and 70 mA, 1.484 pitch, 120 kV for patients with high body mass index. So for central QCT at the spine region the possible minimal effective dose is 0.19 mSv and 0.33 mSv respectively. By the calibration curves it was determined that BMD measurements at the center and at the periphery of the tank were significant different.

Conclusion

Periodic control of the accuracy and reproducibility of the data, as well as the standardization of measurements, will lead to an improvement in the QCT quality. The expected benefits for patients are the reliable data of BMD, the possibility of monitoring the treatment of osteoporosis, the identification of the dynamics of changes in BMD, opportunistic screening. Moreover, the opportunistic screening allows to avoid the additional radiation exposure and

procurement new DXA scanners. Based on the results of this project, a methodology for the optimal implementation and using of QCT will be proposed. The next steps will be low-dose QCT protocol setting for routine scanning, opportunistic screening implementation and multicenter comparison study. Also we suppose to connect Diagnostic Reference Levels and RIS. With the widespread introduction of the QCT program, it is possible to use this technology more efficiently by conducting a survey of many patients requiring bone density tests.

Developing Head Nurses Leadership Capability through Quality Improvement Projects

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Background

Beijing United Family Hospital (BJU) is a pioneering, foreign-funded private hospital founded in 1997. In China, BJU has established itself as the provider of choice for those seeking premium and personalized healthcare that meets international service quality and patient safety standards. The hospital has seen rapid growth in the past two decades and more positions for nurse leadership have become available. However, the nursing leaders recruited from the market cannot fully satisfy the expectations of the organization. The natural recourse is to recruit from the existing pool of senior clinical nurses and develop their leadership capabilities. The hospital is committed to strengthen the leadership skills of some 33 head nurses in order to improve the quality of care amid increasing patient volume and higher patient acuity. Various leadership trainings and programs have been conducted but opportunities to apply these concepts have been limited.

Methods

The nursing leadership in collaboration with the nursing training department developed a three-year program to provide leadership training for head nurses that aligns with the hospital strategic plan. The first phase was a didactic training based on the Nurse Manager's Survival Guide, the Essential Nurse Manager Orientation and the Lean Hospitals. The next phase involved quality improvement projects. Groups started the project by identifying problems in their units. Experts from the Quality and Safety department and other staff provided valuable input to better implement their proposals. The following were the quality improvement projects: 1) medical gas labeling and storage; 2) standardizing IV line and drainage labeling; 3) patient education for endoscopy patients; 4) medication safety on high alert medication; 5) blood dispatching process; 6) improving patient experience; 7) invasive procedures outside the OR; and 8) wound care training and clinical guidelines.

Outcome

The project is underway and final outcomes are still being measured. A self-assessment questionnaire was developed based on the Nursing Leadership Institute's Leadership Competency Model (2003). Data from the head nurse competency checklist and nurse manager annual performance review were used to determine improvements before and after the program. Interviews with leaders and participants were also conducted to provide insights on program impact. Initial results show improvement in head nurses' self-assessment of leadership capabilities. A slight increase is seen in the average scores of the head nurse competency checklist within a 2-year period at the beginning and end of the program. The 4-year (2014-2017) average of the nurse manager annual performance review also shows an increasing trend in leadership performance. Analysis from interviews also revealed that the program is perceived to improve the head nurses' leadership capabilities.

Conclusion

Initial results suggest that the leadership training program for nurse managers which incorporates quality improvement project can improve leadership performance. These results were supported by data from various sources such as self-assessment, yearly performance review, competency checklist and qualitative data from interviews. We learned that programs aimed at leadership capability building are more effective with a good balance of didactic and practical approaches. Providing opportunities to head nurses to develop their leadership skills is paramount in ensuring quality

of care and patient safety for patients. Project management of quality improvement projects allows for the development of both leadership skills and improvements that impact the work environment and the quality of patient care.

Accuracy of discharge diagnostic and procedure codes in cardiac surgery in Canada: A validation study protocol

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Background

This study aims to determine the accuracy of using procedure codes contained in the Canadian Classification of Interventions (CCI) to identify: a) the type of cardiac surgery performed, and b) the cardiac structures involved (type of valves involved). In addition, this study will determine the accuracy of using IDC-10-CA discharge diagnostic codes to identify subsets of patients with 5 distinct postoperative complications of cardiac surgery: a) atrial fibrillation, b) mediastinitis, c) heart failure, d) stroke, e) cardiac tamponade.

Methods

First, we will select a random sample among all patients who received a heart surgery through open sternotomy, between January 1, 2010, and December 31, 2016 at two major teaching hospitals in the province of Quebec (Canada). Second, a manual review of the clinical charts of the selected patients will be performed to define a reference standard. Then, the accuracy of CCI codes in identifying the type of heart surgery performed (i.e., coronary artery bypass graft [CABG], valve surgery or, a combined valve-CABG procedure) and, the type of cardiac structure involved (i.e., aortic, mitral, tricuspid, or pulmonary valves) will be assessed in comparison with the information contained in the clinical charts. For each type of surgery and cardiac structures, estimates of sensitivity, specificity, positive predictive value, and negative predictive value will be calculated. Validity of IDC-10-CA codes in identifying the five complications of interest will be evaluated using a similar approach.

Outcome

This study is currently underway. We expect to have preliminary results by May 2018.

Conclusion

It is expected that this study will support the validity of CCI and IDC-10-CA codes in the specific context of heart surgery. It would allow researchers to use administrative data to easily assemble a cohort of patients and to evaluate efficacy, relevance, and safety of intervention in this field. For organizations, it would make it possible to easily measure and benchmark organizational performance.

The PREDOCS program: a nursing intervention to prepare frail older patients for cardiac surgery - a multicenter implementation study

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Background

Given the growing number of vulnerable, older cardiac surgery patients Ettema et al. developed a preadmission nursing intervention: PREvention Declining in Older Cardiac Surgery patients (PREDOCS) to better prepare older patients for elective cardiac surgery and to prevent postoperative complications.¹ The PREDOCS-programme aimed to prevent the four frequently occurring postoperative complication: delirium, depression, pressure ulcer and infections. In the waiting time before hospitalisation, nurses identify patients who are vulnerable and have an increased risk of complications. By means of one nursing consult, patients will be prepared for cardiac surgery in the period before hospital admission.¹ Participating patients are 65 years and older, planned for cardiac surgery and able to visit the preoperative screening programme. Aim of the study: PREDOCS was implemented into the clinical pathway on the cardiac surgery wards at hospitals in the Netherlands.

Methods

Implementation of PREDOCS requires several changes and mainly most changes are based on behaviour changes. For this study the Behaviour Change Wheel (BCW) of S. Michie is used (S. Michie, L. Atkins & R. West, The Behaviour Change Wheel, A Guide to Designing Interventions, 2014). At this moment a Dutch questionnaire has been developed to improve behaviour changes. The participating hospitals have cooperated with this questionnaire study and this questionnaire involves the COM-B system of the BCW. COM-B system stands for the following aspects related to behaviour (B) namely capability (C), opportunity (O) and motivation (M). Behaviour is part of an interacting system involving all these components and changing behaviour is necessary for the implementation of PREDOCS. This COM-B system is used by this implementation study in these cardiovascular centers in the Netherlands.

Outcome

For these study the primary outcomes are defined conform the British Medical Research Council (MRC) implementation phase, mainly planning, finance, education of nursery, process optimisation and managing & consolidation of the changes which are needed for these new policy. Also the postoperative complications and Quality of Life of the patients are monitored in the 12 participating hospitals. Furthermore Learning Community take place for the exchange of lessons learned and experiences in daily practice in the hospitals during the preoperative and postoperative period. Benefits to patient care are preventing postoperative complications and a decrease in hospital stay after surgery.

Conclusion

In an earlier study it was found that PREDOCS was feasible for patients and nurses to prepare older patients for cardiac surgery in the period before hospital admission.¹ Next step was this implementation study in several hospital with cardiac surgery in the Netherlands where PREDCOS programme was integrated in the clinical pathway. Also a survey is

carried out into the promoting and obstructive factors in relation to implementation. At this moment the implementation study is still going on, some high lights of this study are: create support among doctors, nurses and managers, provide insight into postoperative complications and offer a ready-made package.

Publication 1 Ettema RG, Schuurmans MJ, Schutijser B, van Baar M, Kamphof N, Kalkman CJ. Feasibility of a nursing intervention to prepare frail older patients for cardiac surgery: A mixed-methods study. *Eur J Cardiovasc Nurs*. 2015 Aug;14(4):342-51.

Systematic review of literature on practical tools to help multi-disciplinary teams deconstruct and learn from safety incidents that occurred in any sector.

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Background

According to the UK National Reporting and Learning System recent report, 1,798,186 patient safety incidents occurred between July 2015-June 2016. These incidents varied from no patient harm to never events. Organisations should learn from these safety incidents so similar events do not occur in future. A number of tools and initiatives have been used within industry to learn from safety incidents, some of which could be adapted and used in health care.

Methods

This systematic review followed the PRISMA-P reporting guidelines and was registered with the PROSPERO database (CRD42017071528). We conducted the search in June 2017 using MEDLINE, EMBASE, CINALH, PsycINFO, SCOPUS, Web of Science and ProQuest. A customised data extraction form was used to capture pertinent information from included studies and the CASP tool to appraise their quality.

A total of 4,724 articles were identified, with 942 duplicate articles removed and 3,759 excluded at the title (825), abstract (2,524) and full text (410) stages. Twenty-three articles were included in the final review (22 full text studies and one review).

We defined a practical tool as either a tool, learning process or approach used to learn from safety incidents. We defined a safety incident as any unplanned or undesired event that hindered the completion of a task and may have caused injury or illness.

Outcome

This systematic review identified four key themes: 1) Debriefing, 2) Simulation training, 3) Usage of technology, 4) Dissemination of safety incidents. Debriefing was one approach used to help staff to deconstruct incidents and learn as a team. A widely used tool in the defence and security sector was the 'After Action Review' model, which centred on discussing four key questions: What was expected to happen? What actually occurred? What went well and why? What can be improved and how? Simulation training involved asking staff to re-live the event again by performing the task(s) in a role play, and sharing the learning and recommendations experienced from re-living the incident. Use of e-learning and safety apps was recommended as they were more interactive and user-friendly to read safety messages. Dissemination of key safety messages and recommendations was considered another approach to learn from incidents.

Conclusion

Previous studies have stressed how the use of one or two approaches alone may not be sufficient to safeguard against future safety incidents. Organisations should be encouraged to use a combination of practical tools to help staff learn from them.

Decrease Adult Inpatient Endoscopy Cancellations by Improving Multidisciplinary Communication Applying TeamSTEPPS Methodology in King Abdulaziz Medical City Jeddah

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Background

Endoscopy unit is one of the most dynamic areas. It consists of two endoscopy procedure rooms, that serve inpatients and outpatients. Therefore, efficient utilization of procedure rooms with existing resources in presence of high demand for endoscopy procedure is the area of interests for improvement.

Same day cancellation of adult Inpatient booked endoscopy procedures, is the main concern in jeopardizing flow and inadequacy of utilizing resources.

Implementing unified, patient integrated, safe, and evidence-based health care will improve patient outcomes. In addition, enhancing communication among staff will improve not only facility utilization but will also increase staff & Patient satisfaction. Therefore, TeamSTEPPS initiative was introduced in our institution. It's an evidence-based teamwork system designed to improve quality, safety and efficiency.

Methods

1. TeamSTEPPS team conducted training sessions to all department members.
2. Formulate a Communication Form utilizing TeamSTEPPS strategies and tools to enhance performance and flow that should be completed within 24 hours prior to the scheduled procedure.
3. Formulate a pre-operative checklist for Endoscopy procedures that enhance communication with adult inpatient wards on procedure scheduled day.
4. Establish a pre-set order for Endoscopy procedures in HIM System that includes Gastroenterology, Anaesthesia and Pharmaceutical Care Services.
5. Review and update existing Departmental Policy & Procedure (Colonoscopy Outpatient Pre- and Post-Procedure Care) to cover outpatient and inpatient.
6. Design operational dashboard for Endoscopy unit for continuous monitoring and assess sustainability.

Outcome

All Monthly booked and cancelled adult inpatient in medical wards Endoscopy procedures were monitored and audited After implementation of recommendations, data shows significant reduction from 32.5% (N=32) pre-intervention (Oct 2016- Apr 2017) to 10.8% (n= 16) post-intervention (Jul- Sept 2017), p-value (0.005). The most significant impact of Teamstepps team interventions was streamlining communication process between multidisciplinary team. Furthermore, amazing Cooperation of all staff members led to decrease procedure cancellation and increase utilization

of Endoscopy Room. Hence Endoscopy Communication form was recommended to be rolled over across all hospital in-patient and outpatient endoscopy services.

Conclusion

Applying TeamSTEPPS strategy improved performance and work flow of adult inpatient endoscopy procedure, and subsequently resulted in increased work efficiency and reduction of procedure cancellation. Additionally, implementing TeamSTEPPS in our organization has been proven to be an effective tool to enhance communication and teamwork that reduces staff Improving Communication utilizing TeamSTEPPS methodology in each process of complex healthcare systems, will improve teamwork performance that sequentially will improve all other clinical processes including patients' safety and outcomes. Support and engagement of health care staff at all levels will assure and maintain the change in the organization system. Moreover, improving communication approach is the golden key to reach our desired target and worries.

Improving medical error reporting: a case from Iran

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Background

This cross-sectional study was conducted in a paediatric reference hospital affiliated to Tehran University of Medical Sciences and included all clinical departments in hospital. In spite of universal action to persuade people who are working in hospitals that reporting errors is the first step toward controlling them, yet the rate of medical error reporting was very low in this hospital.

Methods

We hypothesized that improving the culture of error reporting can be possible through a change agent. Therefore we employed a new staff in a reference paediatric hospital as a change agent. The agent was taught to be active, patient and observe each ward every day. So all the nursing staffs were informed that a new staff will observe their ward every day and will ask them about their errors. The agent was taught to ask if there has been any error (even any minor ones) in the last 24 hours. If their response was no, then she would give them options of some possible errors with using a self-constructed medical error form, like “didn’t you have any fall, medication error or a bad phlebotomy in the last 24 hrs?” and through this discussion she could obtain some error reports. She then recorded any error or near miss in her checklist. She had an excel sheet for every month. Each excel sheet included a cross sectional table which was divided to wards and days.

Outcome

This method was conducted for one month. During this period the reporting increased from monthly average of 11 error report before the start of intervention to 34 in the first intervention month. After the first month the change agent asked from HCWs to bring their error reports to her office and she also observed wards every week to make sure there is no hidden error in wards. In second month the number of reports was increased to 54. We observed the rate of error reports for 15 months with this method and the results showed that after month four when the HCWs saw managerial supports, lessons learnt from reported medical errors and practiced root cause analysis, the rate became steady with average of 55 medical error reports for every month.

Conclusion

A change agent can be considered like a trigger to change the attitude and culture of an organization. Setting a change agent which can be a person or software can be helpful in improving medical error reporting.

Strategies for Improving Diabetes Care: Assessing the Impact of Tracking Defaulters of Young Adults with Diabetes

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Background

This project was conducted at the Diabetes Unit of Al-Sabah Hospital in Kuwait. Defaulting from the scheduled appointment constituted a challenge for providing an optimal diabetes care because of the complexities in diabetes management across the life span of the patients. The register of clinic attendance revealed that more than one third of the patients were defaulting from their scheduled appointment, and it was worse among young adults. Research indicates that poor attendance will negatively affect the continuity of care and will increase patients' vulnerability to poor metabolic control and to the risks of acute and chronic complications. The main goal of this project is to assess the impact of tracking defaulters among young adults with diabetes on improving the quality of diabetes care through implementation of strategies to improve clinic attendance and delivery of comprehensive diabetes services for young adults with diabetes.

Methods

The key strategies implemented were: (i) introduction of diabetes outpatient clinic services out of school/work hours (evening clinic), (ii) providing optimal diabetes care for young adults through open access policy to the clinic, and (iii) empowering the team with the knowledge and skills to recognize the psychosocial and behavioral issues that may have an impact on patients' behaviour and diabetes management, and to address the role of healthcare providers and parents. The impact of these interventions were measured through tracking defaulters over time. The proportions of young adults who adhered to their scheduled appointments in the outpatient clinics were measured over four years. The diabetes processes and outcomes will be compared after one year of implementing the open access policy. The measured processes include fundus and foot examination, and measurement of HbA1c, lipid levels, and urinary microalbumin. The measured outcomes include HbA1c and lipid levels.

Outcome

Tracking defaulters of young adults with diabetes in the clinic register showed that there was a slight improvement in adherence to appointment in the evening clinic compared to the morning clinic over the three years after the intervention, but it was only significant in the first year. The educational activities were conducted, focusing on the psychosocial and behavioral issues of young adults with diabetes. The role of healthcare providers and parents in diabetes management was discussed. The team participated actively in the delivery of diabetes care for young adults with diabetes, and they showed motivation toward applying the knowledge and skills in diabetes management. Over nine months after implementing the open access strategy, the team provided comprehensive diabetes services for more than 40 patients with poor attendance. In addition, the young adults and their families showed a positive feedback, indicating that there is a potential for spread of improvements over time.

Conclusion

Poor clinic attendance is common among young adults with diabetes. This project suggests that tracking defaulters of young adults with diabetes, providing services that suit their schedule, and empowering the medical staff with the knowledge and skills related to the psychosocial and behavioral factors of young adults with diabetes may have the potential to improve attendance and diabetes care processes and outcomes. With the increasing numbers of young adults with diabetes, opportunities for improvement should be identified and strategies should be developed for the delivery of optimal diabetes services for this vulnerable and demanding group.

What factors enable person and family centred care in an Australian acute care hospital?

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Background

One of the central aims of the Australian healthcare system is to deliver high levels of person and family centred care (PFCC). Despite recognition of the value of PFCC and implementation of targeted initiatives, data suggest there is still opportunity for significant improvement. For example, data published by the Bureau of Health Information for NSW adult in-patient hospitalisations (2016) showed that only 61% of patients reported that they were involved in decisions about their care and treatment as much as they wanted to be. Therefore, the present study was undertaken to help to better understand what factors enable achievement of higher levels of PFCC. The setting was a 215-bed, acute care, public hospital in Sydney, Australia.

Methods

A qualitative study was undertaken to identify and explore organisational barriers to, and enablers of, PFCC within an Australian acute care hospital from the perspective of that hospital's management staff. Semi-structured interviews were completed with 15 managers purposively selected from Medicine, Nursing, Allied Health and non-clinical support services, to achieve a maximum variation sample. Interview data were recorded and transcribed, and analysed for key themes using the Framework Approach.

Outcome

Enablers of PFCC included a leadership focus on PFCC; staff satisfaction and positive staff relations; formal structures and processes to support PFCC; staff cultural diversity; and health professional values and role expectations. Barriers to PFCC included staffing constraints and reduced levels of staff experience; high staff workloads and time pressures; physical resource and environment constraints; and unsupportive staff attitudes.

Conclusion

This study identified barriers to, and enablers of, PFCC in an Australian acute care hospital. Implementation of strategies targeted at these factors may help the study site, and potentially other hospitals in similar settings, to achieve higher levels of PFCC. Five recommendations were made to the hospital executive to improve PFCC: i) Strengthen leadership capabilities to support sustainable delivery of PFCC, ii) Explore opportunities for workforce and service redesign to maximise the efficiency of existing human resources in the delivery of PFCC, iii) Use targeted human resource management strategies to enhance staff satisfaction and strengthen positive staff relations, iv) Embed formal structures and processes to support and sustain PFCC delivery, and v) Ensure strategic planning carefully considers the longer-term human and physical capital investment required to sustainably deliver PFCC.

Achieving the impossible: Quality Improvement at scale in Tower Hamlets Primary Care. The EQUIP programme

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Background

General Practice in Tower Hamlets is facing significant pressures with workload and low morale as a result of:

- growing population
- rising demand
- funding changes
- staff recruitment and retention challenges
- challenges with providing access for patients

Since April 2017 26 practice teams across Tower Hamlets have been engaged in a Quality Improvement programme: EQUIP (Enabling Quality Improvement in Practice).

There are several strands to the EQUIP programme but this poster presents outcomes to-date specifically on increased capacity achieved through work on 'no shows'/DNA (did not attend) for GP and nurse appointments. At the start of the EQUIP the time lost to 'no shows' was equivalent to 873 GP and 403 nurse appointments a week.

Methods

Interventions:

- software installation and configuration to extract appointment data from GP electronic medical record
- Data was presented to practice teams highlighting significant variation in 'no shows' between practices
- QI coaches worked with 6 practices who worked on reducing 'no shows' for GP and nurse appointments
- interventions ranged from behavioural changes and messaging around 'no shows'/DNA, developed with patients, through to changes to appointment booking configuration

Outcome

- Time lost to no shows/DNA across EQUIP practices has reduced by 22%
- This represents a 'light green dollar' saving of £6200/week (£321,000/annum)
- The increased capacity released is equivalent to 8 GPs and a Practice Nurse, which leads to improved access for patients

Conclusion

- At a time of significant financial and capacity pressures in primary care, this work on understanding the cause of 'no shows' and reliable interventions that can be undertaken to reduce them is vital.
- 'No shows'/DNAs can be seen as a marker of the 'health' of access to primary care. Our data suggests that traditional pre-bookable appointment systems reliably deliver 'no show'/DNA proportions of 6% and 11% for GP and nurse appointments respectively. The difference can be accounted for
- The motivations for reducing 'no shows'/DNA differ for GPs and nurses. The role of comparative data and skilled QI coaching is essential to delivery of improvement
- The next steps for this project is scaling up of the tested bundle of interventions to reduce 'no shows'/DNA to other practices.

Influencing Prescriber Behavior with a Suggested Guideline for The Management of Acute Back Pain

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Background

Pain is the most common complaint evaluated in the emergency department. The need to manage pain effectively has led to the increasing use of opioid analgesics in the ED. However, an opioid centric approach to pain control is not without its consequences. By 2009, drug overdose deaths outnumbered deaths due to MVCs in the US, of which 60% were due to prescription opioids.

This quality improvement project analyzed the effects of a suggested multimodal guideline for the management of acute back pain in the emergency department observation and short stay unit at NYU Langone Health Center. The primary outcome was to evaluate the intervention's effect on providers' prescribing habits at the time of discharge. The secondary outcomes included evaluating pain scores at the time of admission and discharge, and lengths of stay (LOS) of acute back pain patients to and from the unit.

Methods

The study was a retrospective, convenient, consecutive sampling of patients placed in the EDOU/SSU under the back pain or general protocol from 1/15/2017 to 5/1/2017. The pre-intervention period was from 1/15/2017 to 2/28/2017 and the intervention period was from 3/1/2017 to 6/1/2017. Inclusion criteria were patients 18 years of age or older with a primary complaint of acute musculoskeletal and/or neuropathic back pain and who were ultimately discharged from the EDOU/SSU. Exclusion criteria included: patients who were admitted to hospital, and patients with non-neuropathic, non-musculoskeletal back pain. The intervention was the prominent placement of a guideline for the management of acute back pain throughout the unit. It included a multimodal approach to pain management with a regimen of analgesia from different medication classes, the importance of early physical therapy assessment and a reminder to consider alternatives to opioids at the time of ED discharge.

Outcome

During the study, 92 patients were placed in the EDOU/SSU under the back pain or general protocol from 1/15/2017 to 5/1/2017. Of these patients, 32 patients were excluded. The pre-intervention and intervention group consisted of 27 patients and 33 patients, respectively. The comparison groups were not significantly different. For all included patients, discharge prescriptions were categorized as opioids only, multimodal, non-opioid, or no discharge prescription. With the suggested guideline, patients from the intervention group were more likely to be discharged with either no prescription, a multimodal regimen or an opioid-free regimen with an OR of 13.5 [CI (1.30,139.8), $p=0.004$]. However, the number of discharge prescriptions, which included an opioid analgesic, was not significantly different between the two groups ($p=0.27$). The guideline's effect on pain scores and lengths of stay, was not significantly different between groups, $p = 0.41$ and $p=0.1$, respectively.

Conclusion

The study results demonstrate that having a prominently displayed, easy to reference, on-site suggested guideline for the management of acute back pain can affect provider prescribing habits at the time of discharge from the EDOU/SSU. Instead of prescribing only opioids, providers demonstrated an increased likelihood of prescribing a multimodal pain regimen, an opioid-free pain regimen or no analgesic at all. (OR 13.5, CI [1.30,139.8], $p=0.004$). Additionally, increasing awareness and prescribing of non-opioid alternatives to pain control in the management of acute back pain did not negatively impact overall pain control and length of stay. This study is a small, optimistic step towards improving provider awareness of non-opioid alternative analgesia, and ultimately towards helping the opioid epidemic in the United States.

Clinical Audit: Compliance with the meropenem restriction policy 2017

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Background

This audit was carried out in St. Vincent's University Hospital (SVUH), Dublin, Ireland. It is a public teaching hospital with 479 inpatient beds.

Meropenem is a restricted antibiotic and its use is reserved for specific clinical indications to limit the development of resistant organisms. This audit aimed to examine compliance with the meropenem restriction policy in SVUH.

An audit into meropenem use was carried out in 2013 and was used to assess the extent of the problem. That audit found that meropenem was used appropriately 72% of the time. The recommendations from 2013 included that the pharmacist must be notified of each meropenem prescription and that this would be followed up with the microbiology team. This system has been in place since then. Staff are informed of the restriction policy via the online SVUH antimicrobial prescribing guidelines. This audit was conducted in 2017 to reassess compliance with the restriction policy following the 2013 recommendations.

Methods

A total of 29 patients were included in this study. The data was collected between the 30/01/2017 and the 14/04/2017 and included a sample of patients who were commenced on meropenem in SVUH during that period. The patients were identified using a register for meropenem updated by the microbiology registrars. Patients with cystic fibrosis were excluded from the study. Data was collected on the indication for the use of meropenem in each case, the specialty prescribing the drug and whether or not its use was appropriate. Treatment was deemed appropriate if Microbiology/ID had advised meropenem use or if it was used as per guidelines.

Outcome

Meropenem was used appropriately 79% of the time. This is an improvement on the previous figure from 2013 of 72%. The most common indication was sepsis of unknown cause (28%) followed by respiratory sepsis (21%). These were also the two most common indications in 2013. Meropenem was most commonly prescribed by the Haematology team, followed by Respiratory and then Hepatology. Haematology and Respiratory were also the most common prescribers in 2013.

Conclusion

The audit showed a modest improvement in compliance with the restriction policy. The system of notifying the pharmacy department and subsequently the microbiology team could account for the improved compliance since that audit. However, a fifth of prescriptions are still not compliant with the guidelines. It was apparent that prescribers were not always aware of restriction system. It is proposed that the restriction policy be promoted via presentation at journal clubs, circulation of emails detailing the policy and encouraging usage of the online guidelines.

Meropenem has now been removed from the wards and can only be dispensed following approval by Microbiology or Infectious Disease. We aim to conduct another audit to assess whether this measure has further improved compliance.

This study suggests restriction policies for antibiotics can be used to reduce inappropriate usage. This could be used to help limit the development of resistant organisms.

Improved clinical documentation for Improved communication and safety

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Background

The Cancer Care Services of the St George Hospital is based in Kogarah, Sydney and is part of the South East Sydney Local Health District. There was a need to improve Clinical documentation for timely dissemination of diagnostic and treatment related information for optimal care and inter disciplinary communication thus increasing patient safety

Methods

Driver-diagram technique was used to identify issues and solutions. Information sessions, reminder cards, improved clinical information recordings, system user-guide, regular feedback on documentation. The project included a team of interdisciplinary members which enhanced collaboration and improved team work. Customised reports were generated to provide constant feedback to the working group about their progress. Reporting and feedback to team was imperative for the success of the project and was identified as an innovative improvement by the team as such feedback was a rarity before the project. Training documents had been updated including cheat sheets and quick referral booklets for the clinic desks helping keep the changes sustainable

Outcome

An improvement in Cancer Stage information was evidenced up to average 80% of new patients, compared to the beginning of the project at 64% of stage. Improvement in ECOG was evidenced up to average 68% as compared to the pre project at 40%

Conclusion

Continued focus will help improvement leading to other crucial information improvement increasing quality, safety of care and communication between interdisciplinary teams. The processes helped incorporate the CORE principles of collaboration, openness, respect and empowerment of the members and the extended staff. Efforts to finding solutions towards improved documentation helped the Cancer team to operate as a unit encouraging improved interdisciplinary communication.

The improvements helped increase in integration of care by providing complete and timely clinical information. This in turn could be used for further correspondence between the outpatient, inpatient and primary care. In turn helping in improved reporting on patient outcomes, future researchers and service planners. Therefore fulfilling the objectives of translational research and care.

Increasing Diabetic Education for Adherence to Dietary Management

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Background

The project is used to identify a clinical problem that may cause an increase in health risk, cost or re-occurrence hospitalization of patients. The project took place in a classroom setting at a community college campus in South Texas that has a diverse population of students. Hospitals, wellness centers, home health agencies, and clinics may improve outcomes in diabetic care by establishing a plan of care and guidelines for diabetic dietary management. A lack of knowledge with inconsistency in not understanding the benefits of choosing a healthy diet to reduce the incidence of diabetic complications can no longer be ignored. In other words, if a person with diabetes is unable to identify where the inconsistency is regarding self-care, making the necessary adjustment to improve self-care will be lost; thus, increasing further diabetic complications, financial hardship, hospitalization or death. Two things were being identified during the project, knowledge and behavior modification.

Methods

One week prior to the start of the project, information flyers with times, dates, location and contact information were hung on bulletin boards, in the cafeteria, and in the student life center. Prior to the education session the participant cover letter, consent form, contact form with an assigned code and a demographic sheet was completed. The Pre-Diabetic Knowledge Survey was completed before the education session and a post DKS to assess knowledge for making healthy food choices was performed after the education session. Starting the Conversation Survey about eating behaviors was given before the education session; followed by four telephone follow-up calls after the education session in 1-week intervals for four weeks. During this call, (lasting approx. 30 minutes) participants completed the STCS over the phone and had the opportunity to ask any questions related to making healthy food choices to manage a diabetic diet.

Outcome

Knowledge outcome. The first expected outcome of this EBP change project was an increase in participant's knowledge of making healthier diabetic food choices. With the participants meeting a benchmark of $\geq 80\%$ on the post DKS, indicates that providing a diabetic education session does improve knowledge. Behavior modification outcome. The second outcome of this EBP change project was for participants to have improved behaviors related to making healthier diabetic food choices. The participants were called once a week for four weeks utilizing a post STCS to note any behavior modification in making healthy food choices. Participants showing a benchmark of ≤ 10 on the summary score of the post STCS, indicates that improving knowledge does change behavior in making healthier food choices.

Conclusion

In conclusion, both measurement tools, the DKS and STCS was useful in determining if the participants knowledge increased post a diabetic education session. The identified clinical problem is that diabetics lack knowledge in making healthy food choices in order to manage self-care; thus leading to a rise in healthcare cost, increased hospital readmission rates and further diabetic complications of the individual. There is a significant amount of literature acknowledging that diabetic self-management education (DSME) sessions are effective and improves knowledge and glycemic control in diabetic patients. The sample size was small and the project did not allow for Spanish speaking students who could not read or write in English. Hopefully, positive changes can be implemented through Evidence based practice to influence practice implications within nursing program(s) and public health that is consistent with the healthcare changes as it relates to the 21st century moving forward.

Enhancing Patients' Preferences at the End-of-Life- A Quality Improvement Initiative for Patients with Advanced Cancer at a Comprehensive Cancer Emergency Department

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Background

A significant number of patients at the end-of-life (EOL) presented to a comprehensive cancer center emergency department (ED) without Advance Care Planning (ACP) or Do Not Resuscitate (DNR) orders; causing a delay in the initiation of palliative care services, unnecessary interventions, and emotional distress. Providing patient-centered EOL care was essential. The objectives of the project were to improve EOL conversations enhancing the patients' preference for the EOL and to evaluate the effectiveness of an ED palliative care team, the Acute Care Team (ACT), on EOL patients. The ACT assessed factors contributing to ACP absence in the EOL population. Contributing factors included ED care-delivery pace versus ACP time requirements, staff apprehensiveness, stakeholder and patient cultural diversity, high patient census and acuity, quantity versus time-based provider billing, budget limitations, the absence of mandatory EOL training and competing for educational initiatives.

Methods

A prospective quality improvement study was conducted using the Plan-Do-Study-Act rapid cycles. Patient's symptoms at ED triage, ACP, ICU admissions, hospice discharges, and symptoms of distress using the Edmonton Symptom Assessment Scale (ESAS) data were collected between June 1, 2017, and September 30, 2017. The trend of ED-DNR orders produced over a period of 46 months was analyzed. Three main interventions were conducted: physicians and nursing education on EOL issues; the formation of the ACT and their intervention was compared to a control, and a patient and family advisory focus group.

Outcome

495 EOL patients were identified. ACP assessment was completed on 18% of the EOL patients. 45% of the 31 patients enrolled in the ACT intervention had ESAS achieved, 100% of those had a 2-point drop in any of the symptoms of distress ($P=0.010$). In the ACT group, one patient was admitted to ICU (3.2%) vs. 7 (22.6%) in the control group; 58% had a hospice discharge vs. 35% respectively. DNR orders on appropriate patients increased by 71% from a baseline, the ACT contributed to a 24% increase.

Conclusion

Addressing the comprehensive needs of patients at EOL requires an adjustment in ED workflow, from triage to disposition. Education in EOL issues and the introduction of an ED ACT improved communications with patients at the EOL. The results showed symptoms of distress mitigation and consistency and compliance with DNR and ACP documentation. These findings help EDs design customized interventions to fulfill the needs of terminally ill patients.

Increasing the incidence of vaginal delivery in nulliparous women with one child in cephalic presentation at term: an observational, interventional project.

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Background

Caesarean Section (CS) plays an important role in securing the safety of both mother and child during delivery. On the other hand, a CS is a major operation with potential complications. The WHO recommends an incidence of maximum 15 % in total. Keeping the frequency of CS low in first time mothers with one child in cephalic presentation at term in spontaneous delivery (Robson group 1) or induced labour or planned CS (group 2) is important in keeping the overall CS rate low in the long run. We have 90 midwives and 20 doctors serving the delivery wards in Holstebro and Herning with around 3,000 deliveries per year. We refer deliveries before gestational week 28 to a university hospital, as well as women with severe medical problems. In our institution the CS rate has for some years been around 19 – 20 % in total. We wanted to lower this rate by increasing the chance of vaginal delivery in Robson group 1 and 2.

Methods

- Giving feedback directly to involved personal focusing on positive ideas.
- Implementing a new morning round with more focus on discussion and giving ideas about ongoing deliveries.
- Allocating the more experienced midwives to the more difficult deliveries.
- Providing the woman with fluid, energy, comfort and mobilization with one-on-one care.
- Continuous CTG e-learning for all staff on the labour ward.
- Completing a list with ideas to solve dystocia in delivery.
- Instituting time-outs during delivery showing signs of dystocia with discussions about how to deal with the delivery, giving the delivering woman and her partner a sincere perspective for the delivery.
- Offering a debriefing talk to the couple immediately after a complicated delivery.
- VAS scoring of satisfaction with the birthing experience.
- A special team of obstetricians and midwives for consultations with women with fear of birth.
- Visibly displaying our numbers, e.g. CS rates at the labour ward.

Outcome

We have seen a visual impression of a decline in the overall CS rate from July 2016. This is not confirmed yet by the run chart rules. The impact of our changes has primarily shown in the acute CS rate, while the rate of planned CS is stable. We have also seen a tendency for lower CS rates in other groups of delivering women, thus, contributing to the outcome in the total population. The couple's satisfaction with the experience on the labour ward is very high – 91.7 % giving a VAS score of 9-10 and 98 % 8-10. The rate of asphyxia has dropped to a level of 0.4 %. By October 2017 we

started with the visible display on the delivery ward of our numbers. It is difficult to solve the situation for a woman with fear of childbirth. Most of these are multiparous women with a previous bad experience from delivery.

Conclusion

Lessons learnt:

We anticipated a faster lowering of the CS rate. It seems that a lot of patience with the progress is needed.

Messages for others:

By implementing a joint intervention using a wide range of efforts, it is feasible to lower the overall CS rate. The rate of asphyxia did not go up. The CS rate is not relentlessly rising as it was previously stated in the literature.

Involvement of the couples in the project:

During consultations in pregnancy the couples learn about childbirth. During all deliveries the couples are involved in time-outs together with the staff.

Utilized TRM to implement nurse aides hand hygiene

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Background

Taiwan has gradually stepped into an aging society. Many patients must rely on their 24-hours companionship and care when they are hospitalized, in order to prevent the Healthcare-associated infections , we set up team to nurse aides to promote hand hygiene. ICP and head nurse audit nurse aides hand hygiene compliance rate is 80.0%, correct rate is 45.8% in 2015/08.

Methods

1. Systematic change : Provide adequate dry-cleaning equipment and set the check list.
2. Education and training : Individual teaching and using the UV light detector to learn.
3. 3.Work place marked : Nurse aides and head nurse design the work place marked to remind. Such as doorway, work cars ,lockers and made stickers about hand hygiene.
4. 4.Track the report quarterly at related meetings.

Outcome

Since 2015/08-2016/12, TRM has been used by all departments for long-term publicity and continuous effective audit, the compliance rate from 80.0% to 100%,the accuracy rate of hand hygiene from 45.8% to 94.4%.

Conclusion

This systematic revision, education and training, assessment and feedback, and work place marked set, the target value for hand hygiene audit results. By reviewing improvements, conducting advocacy, auditing, feedback and giving rewards, nurse aides will follow the patient care process to achieve the goal of reducing patient safety in healthcare-associated infections.

Hand hygiene is an important issue in international medical care. In addition to the need for professional medical personnel in the medical environment in Taiwan, more importantly, the auxiliary manpower accompanying other patients who are easily overlooked by the patient. Continue to promote this plan, the patient's safety has been better protected.

Towards patient centred healthcare for patients with cancer associated thrombosis: a coproduction between patients, caregivers and healthcare professionals

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Background

Cancer associated thrombosis (CAT) is a common and important problem for cancer patients. CAT is associated with high morbidity and mortality rates and high costs. The care for patients with CAT is currently organised within the oncological care pathways belonging to their underlying type of cancer. These pathways have mainly been designed from the perspective of the health care professionals and the hospital organisation. However, the actual patient experiences with CAT have rarely been used to improve the healthcare. Potential areas of improvement could possibly be found in the provision of information, diagnosis, treatment or aftercare. In this study we investigate what areas of quality improvement in the care for patients with CAT are deemed necessary using the Experience-Based Co-Design Method.

Methods

We used discovery interviews to assess the extent of the problem by asking for the actual (positive and negative) experiences of patients with CAT and their caregivers with the care they received. Experiences of healthcare professionals were evaluated in focus group discussions. The three groups: patients with CAT, caregivers and healthcare professionals prioritized their quality issues independently first. After prioritizing common quality improvement issues, the three groups work as equal partners in quality improvement teams. They will meet frequently to go through the Plan-Do-Study-Act cycle. Our project is aimed to make the existing care more patient-centred. Involving patients will result in more meaningful improvements from patients' perspective.

Outcome

Patient participation was ensured at different levels involving patient advocates, patients with CAT and patient experts. Patient experts had a meaningful contribution in stressing the need for using more understandable language and methods. Patients and carers needed additional support to adequately voice their preferences. A special session was planned for patients and carers to prepare them for a more fruitful participation in the quality improvement sessions. The most important quality improvements points were: 1 information about the treatment and aftercare of thrombosis, 2. Collaboration between departments involved in the care for thrombosis patients. Two quality improvement teams were formed to address these issues. Several 'low-hanging fruit' solutions were conveyed to the participating members of our hospital thrombosis care pathway team.

Conclusion

Patient and carers' participation at different levels has enriched and facilitated our project in making it more patient centred. Special care is needed to support patients and carers to ensure their meaningful participation.

Participation of adequate stakeholders proved to be of utmost importance in this action participatory process. Experience-Based Co-Design is an important and suitable tool for improving patient centred care in a Cancer Associated Thrombosis pathway in hospital setting.

Work in progress: evaluation study for the improvement of peer support in University Medical Center Utrecht

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Background

Previous studies on the impact of (serious) adverse events on healthcare professionals showed the importance of peer support. In 2016 (Q3), UMC Utrecht introduced a team of 108 peer supporters who have various professional backgrounds. Recently, we started our evaluation study with two surveys (2017, Q4) and several interviews (2018, Q1).

Methods

In this mixed method study, we first developed two surveys to examine both the experiences of the peer supporters and of those who received peer support. Secondly, we held interviews with peer support receivers to learn more about their experiences with the aim to improve our peer support team.

SURVEY 1: PEER SUPPORTERS

The first survey focused on peer supporters' experiences with being part of the peer support team (training & practice). Next, we examined the (un)supportive climate within their working environment.

SURVEY 2: PEER SUPPORT RECEIVERS

The second survey questioned receivers' experiences with the peer support team. Besides, we examined the effects of peer support on receivers' emotional and professional well-being. Finally, we asked about the (un)supportive climate within their working environment.

INTERVIEWS: PEER SUPPORT RECEIVERS

In-depth interviews with receivers elaborated on the effects of peer support on their work motivation.

Outcome

This evaluation study is work in progress. However, first results of the survey amongst peer support receivers (survey 2: N = 46) show the following promising outcomes.

BEFORE RECEIVING PEER SUPPORT:

- 52,2% felt not supported;
- 43,5% felt regret;
- 43,5% doubted their clinical skills;
- 39,1% felt ashamed;
- 30,4% felt isolated.

AFTER RECEIVING PEER SUPPORT:

1. 15,2% still felt not supported;
2. 6,5% still felt regret;
3. 10,8% still doubted their clinical skills;

4. 4,3% still felt ashamed;
5. 0% still felt isolated.

For more interesting outcomes, please visit our poster!

Conclusion

For our follow-up study, we would be pleased to hear your thoughts on the following question: what interventions will lead to a more supportive working environment?

Patient involvement in healthcare quality improvement

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Background

Patients have valuable experiences of living with different health conditions and of receiving healthcare, which can contribute and make a difference to QI efforts. In line with this, healthcare professionals are expected to involve patients at different levels of the organisation, and healthcare organisations and their leaders are expected to support such efforts. This study aims to identify studies of patient involvement in healthcare QI efforts and, by reviewing them, to generate a deeper understanding of the mechanisms that contribute to QI success or failure, and of how these play out in different contexts. By recognising benefits and disadvantages of these mechanisms we aim to articulate recommendations for healthcare organisations in managing patient involvement in their QI efforts.

This study is conducted at The University of Borås and Jönköping University, Sweden. The research team and the local hospital in-patient healthcare improvement facilitators are involved.

Methods

This is a realist literature review in progress. The review concerns articles in the healthcare context, focusing on improvement efforts involving patients as well as healthcare professionals and/or managers and leaders at different levels of the organisation. Based on reports of such efforts, we seek to articulate context-mechanism-outcome configurations and simple rules for effective patient involvement.

Outcome

The initial literature search yielded 492 articles published between January 2011 and February 2016, where 25 fulfilled the criteria. They exhibited a diversity of patient involvement approaches at different levels of healthcare organisations. An extended literature review is ongoing to further articulate and strengthen the preliminary findings.

Conclusion

Preliminary results generate three simple rules for how to successfully organise and manage patient involvement in healthcare QI efforts: 1) involve the appropriate microsystem from the outset, 2) support interaction and partnership within the microsystem, and 3) design QI efforts to fit the healthcare problems, the patient involvement level and the contexts at hand.

Improving Access to Dental Care for Vulnerable Children Attending Gateway Clinic

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Background

"Gateway Assessments" are undertaken at Te Puaruruhau, the Child Protection Unit to identify medical, mental health, educational and psychosocial needs for children and young people who have experienced or are at high risk of abuse or neglect. There were high rates of non-engagement with dental services by children receiving Gateway Assessments. 70% of children who attended the Gateway Clinic were overdue for dental review. Few children, 4% (1/26), had their identified dental needs met within 3 months of the Gateway Assessment. MVCOT social workers often had minimal knowledge how to arrange a dental appointment and did not prioritise this. Barriers for families included transport, transience and limited phone contact. ARDS could not identify this group and had no alternative means to contact families. Communication between services was minimal. The Gateway Clinic had no knowledge of the attendance rates for the dental service.

Methods

A process map was developed and a new process developed. The new process identified the child's specific dental needs and at the Gateway appointment the family and Social Worker were informed of the dental appointment at their local clinic. Further PDSA cycles were undertaken with tailored innovative solutions developed such as using the school dental vans, arranging joint appointments for the whole family, informing social workers of the appointment time and requesting social workers assist with transport. Champions in the dental service were identified. These champions demonstrated leadership, developing further strategies implemented in further PDSA cycles. The dental service undertook outreach education sessions to develop relationships with MVCOT and the health service. Development of relationship and networks became apparent as the keys to success for this project. Relationships between ARDS and MVCOT increased the knowledge of dental health.

Outcome

An audit by review of clinical notes was undertaken to generate baseline data and improvement rates. 70% (26/37) were overdue for dental review at time of assessment. Only 1 case had dental review 3 months after assessment. Post implementation 85% had dental review by 3 months.

Conclusion

Developing and leveraging networks are a vital component for managing change. Commitment by all stakeholders to agreed values - to optimise the dental care of vulnerable children with no child missing out - gave a shared framework for the development of individualised and innovative solutions.

For further projects we would ensure we developed a simple way of measuring outcomes from the outset and gathered progress data more regularly to monitor and celebrate progress.

Taking the time to measure baseline data and to develop networks with other agencies were critical components of success when working with families who have significant barriers to care.

This improved dental care for these vulnerable children, increased efficiency in the health system with less missed appointments and with the increase in preventative care, likely less progression to more expensive dental care being needed.

Senior Clinician Stewardship in Improving Telemetry Utilisation in General Medicine inpatients

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Background

American Heart Association (AHA) telemetry guidelines are considered gold standard for inpatient telemetry. There are clearly defined criteria for the length of time a patient should be on telemetry based on their diagnosis¹. The use of telemetry outside intensive or coronary care units is recommended only in accordance with these guidelines². Cardiac arrhythmias and syncope are the most frequent indications for telemetry. Inappropriate or prolonged use of telemetry has potential to create bed access delays, increase healthcare costs and extend length of stay.

The primary aim was to evaluate the impact of senior clinician stewardship on telemetry utilisation amongst non ICU/CCU general medicine inpatients in terms of duration of monitoring. Secondary aims were to assess impact on length of stay and review compliance with telemetry guidelines

Methods

A written protocol was developed for the appropriate utilisation of telemetry based upon AHA guidelines and used in conjunction with daily independent senior clinician review to assess need for ongoing monitoring. A prospective audit was conducted of general medicine inpatients who received telemetry with stewardship over a three month period. Records were interrogated for patient demographics and telemetry monitoring details.

Data was compared with that of a baseline historical cohort (n= 85) from the same general medicine unit who had telemetry monitoring prior to the introduction of stewardship.

Outcome

Data was collected from 101 patients of whom 58% were females with a mean age of 75 years (range 22-93). Of note, 34 patients were listed not for resuscitation in the event of a cardiac arrest.

Compliance with AHA recommendations was observed in 83% of cases. Average duration of telemetry monitoring was 1.2 days with senior clinician stewardship in comparison to 1.9 days ($p=0.000086$) in the baseline. Average length of stay was slightly reduced between the two groups (5.5 days with stewardship versus 5.6 days baseline) but this did not reach statistical significance.

The most common indications for telemetry were investigation of syncope or fall/s without loss of consciousness and diagnosis or monitoring of arrhythmia.

Significant findings, defined as a new cardiac rhythm from baseline ECG or history, were seldom identified: 3.6% in syncope, 5% in fall/s, 6% in dysrhythmia and 0% in other patients. Atrial fibrillation was not detected in patients monitored following acute stroke.

Conclusion

Telemetry stewardship in general medical units results in a significant reduction in unnecessary monitoring making units available for other patients and potentially improving patient flow from the emergency department. It also has potential for improved collaboration between the senior and junior medical and nursing staff which may result in better patient care and experience. The current study did not demonstrate a significant change in the overall hospital length of stay but is limited by its small size.

Indications for telemetry monitoring were mostly appropriate however significant cardiac findings were uncommonly observed.

Telemetry stewardship in general medical units can result in significant reductions in unnecessary monitoring. Whilst direct daily cost benefits of reduced telemetry use and staff monitoring were not measured and likely modest, senior clinician stewardship has potential to improve patient access and flow within hospitals.

Dutch Hospitalist program: a new kid on the block in the Netherlands

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Background

As in other European countries, the Dutch Health Care system (17 million inhabitants, 83 general (teaching) hospitals and 8 university hospitals) is facing increasing health care costs, complexity of care and number of older patients with multi-morbidity and chronic diseases. Care is provided by 2410 different registered healthcare professionals. Most of them are highly qualified excelling in complex diseases. Patient care of hospitalized patients is mainly provided by residents (not all in training), with varying levels of experience. There is supervision by a medical specialist (consultant), but their activities largely focus on outpatient clinics or operation rooms. The general care of complex patients with multimorbidity is thus in jeopardy and all agree that coordination and transfer of care is in need of improvement. Sponsored by the Dutch Government a new training program was started in 2012 for a generalist in the hospital: 'the hospitalist'

Methods

We have developed a three years training program in hospital medicine. After completion of the program the Hospitalist is a hospital based generalist and team player whose main tasks are to autonomously provide general medical care in specialty wards; to provide speciality care under supervision; to provide care coordination and care continuity, including proper transfer of care; and to improve patient safety and quality of care .

Outcome

Currently there are 8 training centers in the Netherlands, 46 trainees and 29 graduated hospitalists working in 7 hospitals. Qualitative data suggest that the first hospital doctors substitutes 10-20% of medical specialist work in the ward and lead to fewer consultations by other medical specialties compared to other type of physicians (either residents or physicians not in training).

They spend relatively more time on indirect patient care than other medical professionals I.e. monitoring and administration, lab requests and outcomes, updating medication, tasks concerning quality and safety.

Hospitalists currently facilitates quality of care and patient safety mainly by participation in quality committees and quality projects, but leadership is in need of development.

Conclusion

It is yet too early to draw firm conclusions about the potential hospitalist's impact on hospital care.

Preliminary results based on interviews and early experiences suggest that introduction of hospitalists is a viable approach to address the needs of complex patients in the hospital.

Their actual impact on hospital care can only be assessed after hospitalists have acquired their own place in the hospital.

Toothache hurts for lots of children in Wales

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Background

Despite improvements in oral health, tooth decay (dental caries) in young children (0-6 years of age) remains a public health problem in Wales.

- By the age of three, 14.5% of children and over a third (35.4%) of five year olds have dental decay by the age of five (WOHIU 2016)
- Approximately 8,000 children have dental extractions under general anaesthesia because of severe dental decay every year in Wales.

Dental decay is the number one reason for children to attend hospitals in Wales. In 2008, the Designed to Smile (D2S) programme was introduced in Wales and from 2008, the levels of dental decay have decreased by 12%. Typically, half of the decay experienced at 5 years of age will be evident by age 3.

The project focuses on preventing dental caries in children aged 0-6 years in 68 General Dental Practices across Wales and simultaneously improving the training needs of Foundation dentists.

Methods

The QI project will develop a course to:

- Guide the Foundation dentists through a QI methodology.
- Familiarise the foundation dentists with the evidence – based recommendations for preventative care for children aged 0-6 years old.
- Deliver preventive care to 0-6 year old children.
- Promote closer working between the D2S teams and general dental practices.
- The format of the course will be:
- 9 interactive online sessions
- Offline activities e.g. data collection or holding a practice meeting.
- The foundation dentist will be supported to deliver an improvement project focussed on preventive care for young children

The timeline for the QI project is:

- All the foundation dentists in Wales will attend a presentation given by the QI tutor in that will explain the format of the QI project and the QI project will be completed by May 2018.
- Feedback from the Foundation dentists will be sought and patient satisfaction questionnaires will be used in all of the participating practices

Outcome

- The project has not been completed and consequently there are no final results available.
- The short term process measures for this project will be:
 - The number of 0-6 year old children in Wales receiving preventive interventions in General Dental practice
 - The number of Foundation dentists who are trained in Wales in QI and to deliver a QI project.
- The long term outcome measure for this project will be:
 - A continued reduction in dental decay in young children in Wales

Conclusion

- 68 dental practices in Wales engaged in Quality Improvement training
- Development of the on-line project introducing the evidence based DBOH programme and improvement methodology
- Development of a robust infrastructure to embed quality improvement methodology and projects into the training programme for newly qualified dentists in Wales.
- Dental practices in Wales will have increased capacity and capability to deliver and improve the quality of preventative care for children.

Value Based HealthCare (VBHC) and Enhanced Recovery After Surgery (ERAS) implementation in a high volume Bariatric Center in Italy

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Background

The prevalence of morbid obesity has globally risen in the last decades, becoming an international public health concern.

Morbid obesity could be life threatening as it is a condition associated with many comorbidities (ie: diabetes, hypertension, obstructive sleep apnea) that impact on quality of living (ability to work, walk, sleep..). Bariatric surgery is actually the most effective treatment.

In July 2015 the Bariatric Surgery Unit started its activity at Humanitas, a highly specialized teaching and research hospital with a strong assets and costs management and culture of measurement.

The challenge was to build a high volume bariatric center (>1000 patients/year), providing efficiency, costs control, but above all delivering clinical excellence and quality.

After 6 months, a multiprofessional team redesigned the complete cycle of care starting from international benchmark and patients' needs, according to ERAS and VBHC principles.

Methods

In September 2015 two actions were put in place: observation of patients on site and questioning about their needs, experience, suggestions and an evidence based approach, following international benchmark and ERAS guidelines.

In the following 3 months the multiprofessional team (surgeons, anesthesiologists, scrub, pain, ward nurses and lean managers) designed the value stream map, completed the stakeholders map to ensure full competencies onboarding, did the root cause analysis to detect the main issues and statistical analysis of data to highlight potential areas of intervention (waste, variability) and to objectivize issues to the Management Board.

Future state was co-designed with patients and caregivers.

In January 2016 the first patient was admitted within the new process.

Periodic meetings with patients (ex and next) grant continuous improvement and motivation. Clinical outcomes and patients' feedbacks are monthly discussed and shown to all the professionals involved.

Outcome

The greatest change has been the introduction of a structured moment of counselling during prehospitalisation as the time for patients and carers to share experience, questions, fears with the team and ex patients as testimonials.

They can get motivation and empowerment, resulting in full compliance to clinical issues as walk and drink 30 minutes after surgery and less request of pain and vomiting control drugs due to early movement.

Each patient fills the activities in a diary to be proactive in the progression to recovery.

This standardized patient centred approach lead to near zero variability in length of stay, stable around 2 days in >2000 patients.

Postoperative intensive care has become near zero;zero mortality;overall morbidity 1,8%;reintervention 0,4%;readmission <30 days 0,4%;comorbidities' recovery one year after surgery >75%.

We've recorded positive Patient Reported Experience & Outcome Measures (PREM&PROM) related to daily living activities and well being after surgery.

Conclusion

It's crucial to invest in motivating and preparing patients, in collecting clinical information in advance to customize a standard process, in involving all the professionals, patients and caregivers during the process redesigning and the follow up. PREM and PROM have been the challenge for us to understand our process, but the collected positive feedbacks gave us the certainty that ERAS and VBHC together prepare patients and carers to surgery, enhance safe discharge and early return to activities of daily living, with a positive impact on the healthcare system too.

This new approach has become the prototype for redesigning other surgical pathways in our hospital.

Information System Development of the Patient Safety Indicators

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Background

Patient Safety is one of the major goals in healthcare system. The Bureau of Nursing of the Ministry of Public Health, which is responsible of nursing quality development of Thailand needs information about patient safety indicators as the input data for improving quality nursing service of the whole country. The Objective is to develop the information system about patient safety in the tertiary hospitals of the ministry of public health.

Methods

Target groups are the 116 tertiary hospitals of the Ministry of Public Health. Participants are the 116 the nurses who are responsible of the nursing quality in the target hospitals. There are 4 stages of the study 1) Situation analyzing the information system by using questionnaires to the participants 2) Developing the patient safety information system by focus group discussions which consists of 12 nursing expertise 3) Trying-out the system by explaining the information system to the participants before implementing in the hospitals 4) Conclusion of the study of by evaluating the correctness of the patient safety indicator reports during October 2015 to September 2016. Quantitative data were analyzed by descriptive statistics and qualitative data by content analysis. The 4 stages study data were collected between January and September 2015.

Outcome

Monthly results of the patient safety indicators had been reported to the hospital directors. Safety information system comprised of the assigned nurses, manuals and collecting data forms, 5 sensitive patient safety indicators and flowing information from the hospitals to the Bureau of Nursing. The results of the development system found that there were 113 hospitals which sent the correct reports (97.41%) to the Bureau. The sensitive patient safety indicators results: ventilator-assisted pneumonia rates were 6 per 1,000 ventilator days; pressure ulcer rates were 4.66 per 1,000 admission days; medication error rates (categories E-I) were 29 per year; catheter-assisted urinary tract infection rates were 3.33 per 1,000 catheter days; nosocomial infection rates were 12.44 per admission days.

Conclusion

The responsible agency about quality development in the country should emphasize on the patient safety information in order to set up the health care system policy for improving the quality of care.

Implementing Pediatric CT Protocols Throughout a Large, Diverse Multihospital Healthcare System

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Background

The Image Gently campaign and other efforts have fostered widespread awareness of the need to use pediatric CT protocols when imaging children. However, the available data suggests that adoption and adherence are often lacking. We describe early success with implementing improvement throughout a large, diverse, multihospital healthcare system. This 12 hospital system includes a pediatric specialty hospital as well as 11 adult-focused hospitals. The adult-focused hospitals span the gamut from small rural community hospitals staffed by private practice radiology groups to large, urban, tertiary medical centers staffed by academic radiologists.

Methods

A Radiology Clinical Expert Committee (CEC) was created in early 2014 as a multidisciplinary governance body. The CEC includes over 50 members, comprised of physicians, lead technologists, technical directors and improvement leaders who represent each hospital. Under the guidance of the CEC, CT protocol names were standardized throughout the system. This intervention included adding a “_peds” suffix to the name of every pediatric CT protocol. An enterprise-wide dose monitoring system became operational in late 2014. Data from the dose monitoring system was then used to identify what fraction of patients <18 years old were imaged using pediatric CT protocols at each site. When early results showed performance gaps, the lead CT technologist from the system’s pediatric specialty hospital and an enterprise CT application expert traveled to each adult-focused hospital. They served as extension agents and worked with each site to reliably implement pediatric CT protocols.

Outcome

The Radiology CEC has met quarterly since 2014. One of its first initiatives was to standardize CT protocol names. While every site attested they routinely used pediatric protocols, the data from the adult-focused hospitals in early 2015 showed that only 8% of pediatric CT scans used pediatric CT protocols. Although these results were shared with CEC members, little improvement occurred until extension agents began traveling to the adult-focused hospitals in July 2015. Pediatric CT protocol utilization at the adult-focused sites has since increased to greater than 85%. Several facilities rapidly increased their pediatric CT protocol usage from 0% to over 90% and have sustained those gains.

Conclusion

Despite efforts to improve health care, dissemination of best practices remains elusive. Our baseline data demonstrated that awareness, agreement and monitoring failed to result in routine use of pediatric CT protocols. To facilitate change, an enterprise-wide governance body, the Radiology CEC, was created. It included widespread representation of frontline teams and provided a venue for repeated communication and collaboration. A guiding vision was adopted and a series of early wins were celebrated. However, dissemination required extension agents who traveled to each site and worked with frontline CT technologists. This enterprise-wide radiology improvement initiative

was able to avoid the potential conflicts that could arise between academic radiologists vs. private practice groups, community vs. tertiary care centers and adult vs. pediatric focused facilities. Instead the focus has remained on improving the safety and outcomes for our most vulnerable patients.

Short and Long term Post-operative Health Related Quality of Life in Vascular Patients undergoing Complex Aortic Surgery using an SMS Patient Reported Outcome Measures Tool A Service Improvement Project

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Background

The Royal Free (RF) London Hospital NHS Foundation Trust is a specialist referral centre for Complex Aortic (CA) vascular patients. Safety and quality improvement are prioritised in all patients. The RF Perioperative Research Group is a multidisciplinary team (MDT) including Anaesthetists, Nurse Specialists and managers. Problem: Complex Aortic endovascular (EV) procedures are performed in high-risk patients. Long-term functional outcomes of EV techniques are unknown. Patient Reported Outcome Measures (PROMS) provide valuable information to supplement clinical outcomes. Regular PROMS analysis assesses quality of care (QOC) and treatment effects on patients' Health Related Quality of Life (HRQOL). They are not commonly studied in CA vascular disease patients. Using mobile technology via text message (SMS), to deliver and collect PROMS specific to CA patients, clinically important information is captured in real and clinically relevant time enabling continuous feedback and improvement.

Methods

Intervention

- Improvement area and action plan to target Lack of PROMS in CA group.
- Key stakeholders agree PROMS follow-up essential to improve QOC.
- Driver diagram identified potential improvement areas and strategies.
- Project proposal designed and written by an MDT.
- Patient Information Sheet given at Preoperative Assessment Clinic (PAC).

Proposed Changes

- Pre-operation date: written consent and baseline PROMS obtained.
- 320 character SMS or paper PROMS tool delivered at agreed key post-operative intervals; 6, 12, 26 and 52 weeks.
- Quarterly PROMS data presented at MDT meetings.
- Quality dashboards.

Strategy for change

- Validated SMS PROMS tool agreed by stakeholders.
- Study involvement promoted in PAC eg. posters.
- Empower nurses to offer PROMS study participation eg Nurse Specialist
- Interactive MDT meeting for staff feedback and education.
- Patient and staff feedback with suggested improvements to all stakeholders.
- Departmental quality dashboards.

Outcome

Work in Progress Impact of changes:

- No previously recorded PROMS data in CA high-risk patient group.
- PROMS measure illness impact on patients' lives, the effect and efficacy of treatments and assess institutional performance of those delivering treatments.
- PROMS now considered routine measure of quality of MDT care for feedback and staff education.

Anticipated benefits:

- Use of PROMS data in consent conversations to address patient expectations of impact of surgery on HRQOL.
- Empowering patients to make informed decision on care.
- Improved patient satisfaction on overall clinical experience.

Problems encountered:

- Lack of PROMS knowledge by allied health professionals and non-clinical departments.
- Designing intuitive and meaningful PROMS tool.

Conclusion

Lessons learnt:

- Clear shared goals, strong leadership and involving all stakeholders is instrumental to driving improvement in an unexplored area.

Anticipated challenges

- Raising staff awareness of PROMS importance through feedback and education.
- Keeping momentum for duration of study period.

Messages for others:

- Without formalized PROMS analysis, clinicians cannot objectively communicate with patients in discussions about their expectations throughout their treatment course.
- Staff engagement fundamental to driving improvement.
- Multiple stakeholders necessary for process-level change management (CM).
- "Buy-in" by all stakeholders critical for successful CM.
- Regular HRQOL assessment core to improve quality of care and overall patient experience.

‘Is the Cork still in the bottle?’ ‘A quantitative study on Gender, Ethnicities’ and Healthcare Managers in Sweden’

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Background

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BACKGROUND:According to the Swedish Migration Agency there is strong evidence that Sweden is becoming more and more diverse with the passage of time but contrary to that, historically there has also been documented underrepresentation of ethnic female healthcare managers at the top managerial positions. It is believed by the Andre and Ledarna Swedish CEO's Organisation to be due to the lack of method and structure of recruiting processes which are strengthen as being part of the politically driven structure of Healthcare System.

AIM:The aim of this research is to study if healthcare management is becoming more diverse, from a gender perspective, considering that it has not been historically.

Methods

In order to research to the purpose of the study, quantitative methodology was used. This enabled to measure the correlation of responses between the swedish and ethnic female healthcare managers. The target group for the study was a sample of individuals at Kvinnliga Läkares Förening(KLF) Facebook group. The convenience sample of 50 individuals was sufficient considering it is the minimum number required by the institute to complete this study. They were contacted individually at the end of March 2016, on Facebook group and were mailed adapted version of Career Pathways Surveys (Smith et al 2012). It was kept in mind to have equal number of responses of both Swedish and ethnic female healthcare mangers in order to complete this study. Result was analysed using z-test as soon as they were received in mail.

Outcome

This study shows that diversity is improving in the healthcare managerial positions.

Conclusion

The findings mentioned above in this study which are grouped under the following four components: Denial, Resignation, Resilience and Acceptance of Career Pathways Surveys (Smith et al, 2012) states clearly that the diversity has increased among the healthcare managerial positions. This study was carried out to examine the correlations of responses between the Swedish and ethnic female healthcare managers and/or aspiring healthcare managers and results were analysed using the z-test. Hence, the study concludes that the healthcare managerial positions are becoming more diverse in Sweden.

A new successful approach to implementation of hand hygiene

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Background

Nordsjællands Hospital (NOH), Copenhagen, Denmark has 4000 employees. Handhygiene is an important part of a bundle approach reducing HAI's. In 2012 the infection prevention unit (IPU) initiated a change in the approach to handhygiene. Handhygiene compliance was acceptable, but the technique used was not always correct. IPU aimed implementation of correctly performed handhygiene among staff with contact to patients.

We interviewed various groups of staff and found out that many lacked motivation and knowledge and some thought they were too busy to perform handhygiene correctly.

In order to involve staff, we involved the CEO, the head nurses and doctors of all units. We presented the potential reduction of morbidity, mortality and costs due to a reduction of HAI's using a business case. An upgrade of Infection Prevention was supported by hospital leadership and the Infection Prevention Committee and the head nurses took responsibility for the performance of hand hygiene observations.

Methods

In 2012 we introduced monitoring correct technique in combination with compliance. Each unit made 20 monthly observations in accordance to WHO's "5 moments of hand hygiene". The aim was 75% of correctly performed hand hygiene. A monthly feed-back chart of all wards is sent to leadership at all levels. IPU monitors data and continuously follow up, as well as newly employed staff, infection coordinators and students are receiving extensive teaching and training.

Along the process the feed-back chart has been evaluated and developed, and in 2014 the results are transformed to traffic light color codes: Red=unacceptable, Yellow=goal almost reached, Green=goal achieved.

In 2015 the goal was reached, and the aim was raised to 90%. We introduced a local award. A unit is rewarded with a cake every 3 month by the CEO. The groups of other staff increased, and cleaners, physiotherapists, laboratory technicians and radiology started participating. In 2016 more groups of staff joined in.

Outcome

The impact of the intervention was increased awareness of HAI's and how to avoid them among all groups of personnel. Staff understands the importance of breaking the transmission of nosocomial microorganisms, and there has become a positive attitude towards hand hygiene on a hospital level. We have reached a culture change, and among all staff the hand hygiene performance improved significantly. Surprisingly, we also experienced a positive effect on the attitude to isolation precaution measures and the importance of cleaning improved as well. Using national and regional surveillance of HAI's we also can ascertain a statistically significant reduction of hospital acquired urinary tract infections. In 2017 the hospital won The European Hand Hygiene Excellence Award.

Conclusion

After 5 years of focus on the implementation of a new hand hygiene strategy, we found out that several factors are essential to succeed. A bundle approach starting with leadership support at all levels are essential. Data driven feedback is efficient and creates motivation to friendly competition between wards, as well as a local award 4 times a year is a motivator for wards.

Educating and training of all staff members, including staff from facility management, technicians and therapists, was very productive. It has been motivating for all staff members to highlight the reduction of HAI's in the hospital. Aiming for an international award has been highly motivating and winning the award has been satisfying.

The silent transfer

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Background

Many handovers take unnecessarily long, making nurses unavailable to the department and for direct patient care for a long time. It has been found that a bad or incomplete handover can result in incidents. According to the professional profile, the nurse is responsible for the continuity of nursing care. Handovers and reports are important requirements for this. In the nursing ward of a surgery department, the handover was inefficient. The entire file was read by the new nursing shift, after which this information was passed on by the current shift verbally. This resulted in a long transfer time, less time for the patient, and overwork.

Methods

Prior to the optimisation of the nurse handover, a baseline measurement was performed to map the current situation. For the optimisation of the handover, the document: "flexible standardisation of verbal handover" and the Isala protocol of verbal handovers is used as a guide. A silent handover involves the following elements:

1. Reporting using the ABCDE method.
2. 20 min of reading the report undisturbed in set place.
3. 10 min for questions.
4. Both shifts walk together past the patients.

Outcome

A before and after measurement is taken and descriptive statistics is used. Effect of changes are: patients safety is better guaranteed, it provides more time for direct contact with patients and the medical file is kept more up to date.

Conclusion

The silent transfer is an efficient and safety method for the verbal handover between nurses.

"Come Together, Briefly!"- Pre-operative Briefing Project

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Background

Hamad General Hospital (HGH) is a tertiary care, 603-bed facility providing specialized care to the people of Qatar and also serves as teaching hospital partner for Weill Cornell Medical College-Qatar & Qatar University College of Medicine. Our theater complex has 20 Operating Rooms (ORs) with monthly average of 1400 surgeries.

Preoperative surgical briefing (Pre-Brief) along with the WHO Checklist has proven to reduce patient harm and OR delays. The project was undertaken by the Perioperative Quality Committee to implement Pre-Brief in HGH.

In Pre-Brief, the surgeons, anesthesiologists & nurses in an OR would meet for 5 minutes or less before transfer of first patient to OR & discuss all cases listed for the OR. They go through specific requirements like patient positioning, instruments, prosthesis, anticipated blood product, ICU booking, radiology or pathology requirements like specimen mammogram or frozen sections. This helps to prepare & avoid delay in completion of list of surgeries.

Methods

A checklist was prepared to aid the Pre-Brief process. We selected two specialties- Breast Surgery & Urology to first implement the Pre-Brief for 3 months. Both the specialties were given presentations, demonstrations & email reminders on how the project would benefit them and patients by avoiding delays. Their feedback was carefully considered and the checklist was edited to suit these specialties.

The checklist is completed by recording any re-ordering of cases or special requests/arrangements. Process measures were presence of at least one member from surgeons, anesthesiologists and nurses teams and the time taken for briefing. Outcome measure was potential delays avoided which was determined by the project leader who checked if there were any re-ordering of list done or if any new requests or arrangements done which would help to avoid delays.

Outcome

Total of 35 briefing sessions were conducted from November 2016 to February 2017. 94.3% of the sessions recorded the presence of at least one member from surgeons, anesthesiologists & nurses. Mean time taken for Pre-Brief was 4 minutes and 20 seconds per session to discuss an average of 3.5 cases. Potential delays avoided in 48.5% of OR lists thus reducing OR costs (around \$1000/hour). The main challenge was to convince the surgeons who believed that Pre-Brief would take more than 15 minutes per session. But after an interim analysis showed clear benefits and at the same time taking less time than expected, the surgeons turned efficient advocates of the project.

Experience of these two specialties persuaded them to advertise the benefits to other surgical departments in HGH thus convincing other specialties to join the project.

Conclusion

Preoperative surgical briefing was successfully introduced in the Breast surgery & Urology and were well received. Pre-

Brief project has expanded to other surgical specialties in HGH since July 2017. The process has since been integrated into the Electronic Medical Record workflow to avoid paper-based checklists and to enable automation of data collection.

With evidence backed presentations highlighting benefits, surveys, feedback mechanisms and a strong pilot program it is possible to introduce projects that decrease OR delay and decrease costs efficiently. Successful pilots with clear benefits will persuade initial participants to join forces to expand the project.

Preoperative briefing is an important tool in avoiding OR delays and can be implemented through careful planning and by including the beneficiaries right from the planning phase of the project.

Strategy deployment: from ad hoc towards daily effective improvement for excellent healthcare

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Background

Reinier de Graaf Hospital is a Dutch top-clinical hospital in the city of Delft. The hospital has about 3000 employees of which approximately 200 are medical doctors. It has been well known for continuously striving to improve quality and safety for its patients. Since 2008 the hospital has been experimenting with methods such as Six Sigma, Lean Six Sigma and more recently with the application of Lean management principals, assuring excellent healthcare for its patients.

In various departments, several processes have been improved according to the Lean method and substantial costs were reduced. However, there was a clear need to streamline all improvement initiatives and to align them with the hospital's strategy.

In short: Shifting from ad hoc improvements towards continuous effective improvements aligned with organizational goals.

Methods

We developed a 5 day leadership training for the Board of Directors, Senior-Management and Medical Doctors. To enable the participants to assess the current condition of daily improvement for themselves, we designed a tracer tool. The tracer describes specific characteristics which can be observed in an environment where daily improvement is put into practice.

After assessing the gaps in the current condition, three concepts were drafted consisting of a true north with three themes and challenging Key Performance Indicators were set. In order to receive feedback, the drafts were presented by the participants to an audience of colleagues from all organizational levels (nurses, assistants, staff etc.) to find out whether the true north was clear, appealed to them and could be aligned to the different levels and departments in the organization. Departments were then challenged to experiment with the true north and KPI's and asked to align them to their specific setting and context.

Outcome

The current condition was visualized by using the tracer tool by which participants discovered room for improvement which created a burning platform and an intrinsic need for action.

After incorporating feedback on the drafts, improvements were made which resulted in a true north (visually reflected in the "logo" of the Reinier de Graaf Hospital), with three metrics:

- Quality and safety
- Effectiveness
- Peoples satisfaction

After experimenting with the true north and KPI's and after aligning them to their specific setting and context, Team Performance Indicators were set by which teams were able to daily measure, learn and improve on safety, effectiveness and satisfaction. By daily evaluating measurable goals and deviations it is possible to find root causes and

furthermore determine interventions. This allows teams to make a shift from ad hoc “fire fighting” towards sustainable improvements on safety and quality for the patient. In the poster you will see some examples.

Conclusion

Aligning improvement efforts towards common measurable goals proved to be very valuable for our hospital and departments. More focus prevents waste of time and waste of capacity. Furthermore by determining and measuring the current condition before interventions have been implemented it is possible to do PDCA and measure the improvement during and after the intervention. Using the Reiner True North approach, helped teams to build and sustain a learning culture. Best practices were created by working together on common goals. This resulted in optimized processes, learning behaviour and successful teamwork . The next challenge is to align goals at department level with management and board level, by which everybody at every level contributes towards the same hospital goals. This enables continuous improvement of safety and quality in healthcare for our patients.

Improving acute care by medical specialists working side by side with emergency physicians at the emergency department.

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Background

Haaglanden Medical Center Westeinde (HMC) is an inner-city hospital in the Netherlands with 52,000 emergency department (ED) patient visits annually. Improving acute care is a strategic ambition of HMC. To improve acute care, a HMC Taskforce decided to focus on decreasing the patients' length of stay (LOS) at the ED to a maximum of 2 hours, while improving the patients' experiences. In 2016, an integrated approach to improve patient flow was initiated. The first project executed was the presence of 5 medical specialists during peak hours at the ED working side by side with Emergency Practitioners (EP). Previously, ED staffing at HMC was mainly performed by residents and EPs, not by medical specialists. It is generally assumed that physicians with more experience can deliver higher quality and more efficient care.

Methods

Changes to practice: During out-of-office hours (from 5 to 11 pm) five medical specialists (cardiology, surgery, radiology, neurology, and internal medicine) stayed at the hospital instead of being 'on-call at their homes'. During the weekends the same five were present between 2 and 6 pm. Residents and EP's kept working as usual. Evaluation: After every shift, medical specialists, residents, EP's and ED nurses filled in semi structured surveys with questions regarding the value of the presence of the medical specialists and perceived bottle necks in ED patient flow. Furthermore, new ideas for process improvements were collected. The effects on LOS and patient experiences were evaluated using staff surveys, a before- and after 16 week data collection of ED visits and patient questionnaires. Content analysis and descriptive statistics were used. The study was deemed exempt by the regional medical research ethics committee.

Outcome

The staff surveys (n=379) provided valuable insights on how to continue this project and medical specialists' perceived bottle necks in ED patient flow(1). The data of the ED visits (n=5,270) showed a significant decrease of 16 minutes per patient in the pilot period compared to the control period (1). The patient questionnaires (n=166) showed increased patient recommendation scores from -15 to +20 (1). Based on the evaluation the Taskforce initiated several new projects to improve patient flow. One of these projects was the continuation of the medical specialists' at the ED during peak hours (from 12 to 20 pm), which started November 2017. Prior to the continuation of the project, the tasks of the medical specialist and EP were defined and new medical staff was hired. Evaluation regarding the effects on ED crowding, LOS, the number of diagnostics requests and clinical admissions, is expected in May 2018. Again, patient satisfaction scores and staff experiences will be evaluated.

Conclusion

The first results of medical specialists working side by side with EP's at the ED suggest a positive outcome on patient care and the pilot project made an important contribution to the integrated approach of improving acute care at HMC.

(1) van der Linden MC, de Beaufort RAY, Meylaerts SAG, van den Brand CL, van der Linden N. The impact of medical specialist staffing on emergency department patient flow and satisfaction, Eur J Emerg Med 2017.

Checklist Challenge: Integrating Patient Safety into the Medical Admissions Process

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Background

All patients admitted to our Acute Medical Unit (AMU) are clerked in by a junior doctor using a standardised proforma which includes a number of checklists. The three mostly commonly used checklists were Venous Thromboembolism (VTE) prophylaxis, Think Investigate Manage Engage (TIME) delirium bundle and Acute Kidney Injury (AKI) checklists.

Many doctors responsible for completing this proforma reported “checklist fatigue”. We were concerned that this was leading to inefficient working, staff unhappiness and potentially poor outcomes for our patients.

Methods

We reviewed 112 admission proformas over a two-week period.

VTE prophylaxis checklist was completed in 71.4% of admissions. However, correct prophylaxis was still prescribed for 81.3% of the remaining patients. 10% of patients received incorrect VTE prophylaxis despite checklist use. In those where it was indicated, completion of TIME delirium bundle and AKI checklists were 25% and 21.4% respectively.

16 medical staff completed a questionnaire with over half “agreeing or strongly agreeing” that checklists improve patient safety. However, only 37.5% “agreed or strongly agreed” that the VTE and AKI checklists were well designed. While 50% felt the TIME bundle was well designed, only 18.8% could locate it easily.

When asked about the features of a well-designed checklist, many respondents highlighted the importance of brevity and accessibility. Time constraint in a busy admission unit and duplication of documentation were commonly cited as barriers to completion.

Outcome

We proposed the following changes:

- 1) Condense the written material in the checklists to make them more succinct.
- 2) Remove the need to locate separate forms by incorporating all commonly used checklists in the admission proforma.
- 3) Simplify proforma layout, placing all safety checklists on the same page and adding a simple page listing criteria for individual checklist completion.

We tested this proforma over a two day period then sought feedback from staff who had been involved. Staff spoke positively of the changes, reporting a more time-efficient clerk in and, in turn, stated they were more likely to complete the checklists. The additional list of criteria for completion of each of the checklists was particularly welcomed as it was helpful in focusing assessment.

Our next steps are to test whether the new proforma results in improved checklist completion and ultimately in improved safety in the areas the checklists were designed to address.

Conclusion

While checklists undoubtedly have a role in improving safety and quality, it is increasingly recognised that they are not a panacea and should be used alongside other strategies. Implementation is often complex with the potential for an excessive number of checklists to become a hindrance. Consideration needs to be given to the design of clear and effective checklists – especially when several are to be used together.

Ergonomic proformas can have a direct impact on patient safety. It is therefore crucial to engage users in the process of development, to ensure implementation in the context of a strong safety culture and to regularly review and streamline existing checklists.

Promoting Cardiovascular Health since early Childhood. A Health – Education integration opportunity

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Background

Cardiovascular disease CVD is a leading cause of mortality in Colombia and worldwide. The World Bank reports that: 56% of all deaths low-middle income countries may be attributed to NCD diseases.

In Colombia, poor lifestyle factors affecting childhood are : 50% live a sedentary lifestyle, 48% high fat/carbohydrate consumption, 30% passive smoking, 14% overweight or obese, 15.8% hypercholesterolemia, and 5% have hypertension.

Negative lifestyle behaviors LSB initiated in childhood that persist through adulthood can be risk factors RF that predict CVD. To modify LSB at childhood, early identification and understanding of behavioral and physiological variables related to CVD are essential, so that appropriate interventions can be targeted at this age with the expectation that such changes could drive modifications in CVD RF and lessen the risk of developing these diseases during adulthood.

A school based Healthy Lifestyle Behavior HLSB intervention is presented.

Methods

Research AIMS to improve AHA's simple 7 ideal cardiovascular health score at 18 yrs via instilling HLSB through the school age cycle .

SI Colombia collaboration has shown the effectiveness of a preschool based Multicomponent Intervention MCI centered on promoting heart and body awareness, healthy diet HD and physical activity PA. AJM 2013: 126:1-35e.

Cardiecol implemented a similar 3 yr MCI in 9 schools of Bogota during 2015-17 and evaluated the impact on HD and PA via cluster RCT.

Implementation was co-constructed between Fundación Cardioinfantil and school's pedagogical coordinators and included: pre implementation HLSB teacher's capacitation, follow by monthly health team supervision , teachers and parents also received 3/yr 2 hour HLSB workshops and monthly HLSB notes , a HLSB curriculum planner guided children's (6-9 yrs) weekly activities complemented by 1/sem high impact PA training sessions during recess periods. Activities rounded up with a healthy festival.

Outcome

After 3 years, we found significant HLSB and cultural changes in both control CG and intervened school groups IG. Active energy expenditure AEE measured during 5-day accelerometry with an Active Heart device 4 increased 82.47 kcal/day and 527.29/week in children 8 years and older in the IG . Sedentarism decreased in both groups but with a

difference of 21 min/day in favor of the IG (P=0.6). Moderate and vigorous physical activity MVPA increased 29 mins/day (P=0.06) in IG.

In the IG, we also found increased consumption of fish (> 2 portions/week) with a difference of 9.34% (P=0.03). Consumption of fruits (> 3/day) also increased with a difference of 4.32% (P=0.08). We did not find any difference in total cholesterol, triglycerides, glucose values, Blood pressure or BMI.

The MCI schools strategy was cost effective and showed a positive effect 0.64 (IC95% 0,25 – 1,06) on increasing teachers PA AHA score in an aside study for this HLSB school based Cardiacol intervention.

Conclusion

Our longterm aim is to Integrate health and education through this structured school cycle HLSB strategy . Teachers engagement and motivation was enhanced after individual CVD RF and physical fitness evaluation and capacitation. Schools' leaders with CVD also helped in scaling up strategies' messages and raised awareness on prevention. High impact PA recess sessions was inspiring for children. Increased in AEE and MVPA of 29 min/d and a decreased in sedentarism of 21 min/d is a positive finding.

Changing dietary habits is a challenge. Improving the consumption of fish and fruits is a step forward in this process and motivates us in maintaining a strong collaboration with schools. During this time, Cardiacol helped Bogota's Secretary of Education adjust its' public-schools regulations thru resolution 2092 / 2015. This will introduce a gradual 8-year change towards healthy foods offered in the schools Tents. Improving CV health implies health, education and family integration.

Protecting patients from infection: improving topical prophylaxis compliance in surgery

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Background

Staphylococcus aureus bacteraemia and Meticillin-resistant Staphylococcus aureus (MRSA) bacteraemia continue to be challenging for healthcare settings and protecting patients from these infections remains a priority. One intervention to prevent such infections is to administer topical prophylaxis to patients, typically nasal ointment and bodywash.

Prior to this project, hospital policy mandated that junior doctors prescribe the topical prophylaxis prior to nurse administration, despite this not being a prescription-only medicine. The administration rate of the topical prophylaxis on three surgical wards was less than 25% prior to this project commencing in January 2017, due to launch of an electronic medication prescription record. The aim was therefore to improve the administration of topical prophylaxis to patients on the three surgical wards by over 50% by March 2018. This project was undertaken at Northampton General Hospital NHS Trust, a district general hospital in the UK.

Methods

Quality improvement Plan, Do, Study, Action (PDSA) cycles evaluated the effectiveness of different strategies to improve the administration of the topical prophylaxis. Baseline data was collected from August 2016 to December 2016 and four PDSA cycles were subsequently implemented between January 2017 and December 2017. The impact of each PDSA cycle was evaluated on a p chart which plotted monthly administration compliance data from August 2016 to March 2018.

PDSA cycle 1: January 2017 - information sheets and training was delivered by the IPC Team.

PDSA cycle 2: April 2017 - July 2017 - prompt stickers for the medical notes for patients who were found to be non-compliant and posters were displayed in the doctors' offices.

PDSA cycle 3: August 2017 - discontinuation of the nasal antibiotic ointment element of the treatment.

PDSA cycle 4: November 2017 - policy change so nursing teams could administer the prophylaxis without it being prescribed on the electronic prescription charts.

Outcome

The impact of this quality improvement project is multifaceted. The compliance of prophylaxis administration increased consistently throughout the project from 25% in December 2016 to 94% in March 2018. Consequently the days between patient MRSA colonisations reduced from 23.3 days before the study to over 90 days (n=0 to date) following the project.

For the junior doctors, no longer writing an average of 58 prophylaxis prescriptions each week generates a time saving of 77 hours (10.3 working days) per year which equated to a cost saving of £1,280. This effect will give junior doctors more time to care for their patients. There is also an impact on antimicrobial stewardship as the discontinuation of the Mupirocin nasal ointment contributes towards the prevention of antibiotic resistance.

Conclusion

This project was successful as 94% of surgical patients now receive topical prophylaxis so are better protected from healthcare associated infection and MRSA. Therefore this project enabled improvements in the quality of care that patients receive and has enhanced patient safety. It is acknowledged that surgical site infection rate would provide an additional outcome measure, but this data is not collected consistently throughout the year and the resource required to provide it was beyond the scope of this project.

To conclude, this project has evolved a process from demanding a doctor-led prescription to facilitating a nurse-led supply in order to improve compliance to that process of administering topical prophylaxis to surgical patients on three wards. It is innovative because it has challenged a deeply historical process to adapt and progress in a manner that reflects current evidence and practice, to the benefit of our medical staff, nursing staff and our patients.

Can the use of lighter water jugs and fluid intake charts increase the water intake of older adults? A Quality Improvement Project

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Background

Water is one of the most important nutrients needed by the human body and as such, dehydration puts patients at an increased risk of complications such as infection, thrombo-embolism and acute kidney injury. Older adults are at an increased risk of dehydration due to physical frailty, the presence of co-morbidities and changes in homeostasis such as the loss of the thirst sensation. Anecdotally, it is recognised that older adults do not drink enough water when in hospital. An initial audit was performed on a medical ward at the Princess Royal University Hospital (PRUH), London which found that older patients did not meet the recommended daily fluid intake volume. Although these patients are at an increased risk of dehydration, only 27% of patients had a completed fluid chart. As well as this, 50% of patients were unable to lift the jug of water provided by the hospital to pour themselves a glass of water.

Methods

Given the results of the initial audit, we aimed to increase the average daily water intake of older patients in a medical ward at the PRUH by 30% within two months of implementing the first change. Since many patients were unable to lift the water jug to pour themselves a glass of water, the first intervention was to introduce smaller 750ml jugs to all patients on the ward. The second intervention was to encourage the use of fluid intake charts for all patients as older adults are at an increased risk of dehydration. The average water intake from 16 patients was measured from 0800 – 1830 over three days before the changes were introduced and for six days after each change was introduced. To ensure an increase in water intake would not result in a decrease in fluid intake from other drinks, fluid intake from drinks other than water was used as a balancing measure.

Outcome

Introducing the first change did not significantly increase the proportion of patients able to lift the jug ($p=0.28$) or pour a glass of water from the jug ($p=0.86$) (Fisher's Exact Test). After the change was introduced, neither a trend nor a shift in average water intake could be demonstrated on a run chart. Following on from this, the second change of encouraging the use of fluid intake charts resulted in a significantly higher proportion of patients with a correctly completed fluid chart ($p<0.0001$) (Fisher's Exact Test). But again, neither a shift nor a trend in average water intake could be demonstrated on the run chart.

Conclusion

The data from this project confirms that patients on the studied ward are not meeting the recommended fluid intake volume. This study therefore highlights the serious issue of inadequate water intake of older adults. Although the changes implemented did not show an improvement in water intake, it has highlighted that these changes may not be fruitful when trying to improve water intake in older adults and other options need to be considered. As well as this, the project has increased the sustainability of water provision on the ward. Introducing smaller jugs onto the ward

would have reduced water wastage and hence costs as a smaller volume of water would be discarded when the jugs are changed at the end of the day.

Captain Communication - Reduction of Violence and Aggression on Inpatient Intellectual Disability Wards

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Background

Muckamore Abbey Hospital is a Hospital for people with Intellectual Disability and mental health, forensic or challenging behaviour needs in Northern Ireland. It provides this care for people from 3 trust areas, Belfast, South Eastern and Northern Health and Social Care Trust. There are currently approximately 100 inpatients in 7 wards. These include 1 Psychiatric Intensive Care Unit, 2 Acute Admission wards, 2 Continuing Treatment wards, 1 Low Secure Forensic Unit and 1 Resettlement ward. Muckamore Abbey Hospital has the highest levels of violence and aggression within the trust. This has had a subsequent impact on staff morale. By introducing safety briefs we aimed to reduce the number of incidents of physical aggression on the wards.

Methods

We introduced Safety Briefs to the Psychiatric Intensive Care Unit in December 2016. A template was designed for staff to complete including issues related to staff, patients and buildings. The ward manager was involved in the project to help implement the change and explain to staff alongside me how the safety brief should occur. We identified a ward champion to assist with implementing the change. Feedback from staff led us to introduce a trigger list to help staff initiate what issues should be included. Staff feedback was positive with staff feeling safer on the ward. We co-designed a Captain Communication logo with patients and our ward champion dressed up as Captain Communication to help spread knowledge that the safety briefs were taking place. Other wards were keen to implement them. The ward champion and myself spent time meeting with the ward managers of the other wards. Safety briefs began taking place on the other wards between July 2017 and October 2017.

Outcome

Safety Briefs are taking place on a daily basis on all of the Inpatient Units in Muckamore Abbey Hospital and there is a general trend of reduction of incidents of violence and aggression on the wards. Staff feel safer whilst working on the wards. Staff have found that they are developing proactive strategies as to how they could avoid incidents from a much earlier stage in the day. One example of this was building work occurring within the ward which can have a negative impact on some of our inpatients due to a change in routine. Due to this being highlighted in the morning safety brief staff were able to plan alternative activities off the ward which the patients enjoyed and therefore avoided episodes of violence or aggression.

Conclusion

Safety Briefs are taking place on a daily basis on all the inpatient units in the hospital and there is a general trend of reduction of incidents of violence and aggression on the wards. We found identifying a ward champion invaluable, particularly in keeping momentum going. We also found that asking staff for frequent feedback, including anonymous feedback, helped achieve buy in. Displaying the results on a noticeboard helped staff see the reduction in incidents and how the project was progressing. Co-designing the logo with patients helped us develop a Captain Communication theme. This fun aspect of the project helped with team building and improved staff morale. It also helped achieve buy in from staff from other wards. The success of this project has led to the development of other quality improvement projects to reduce violence and aggression and improve staff morale. These include the implementation of Positive Behaviour Support and Reflective practice groups.

Improving electronic VTE assessment rates to prevent unnecessary death in elective surgical patients

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Background

Each year over 25,000 people die from hospital acquired venous thromboembolism (VTE). It has been shown that orthopaedic patients are at particularly high risk. The NHS standard contract requires that 95% of patients are assessed for VTE risk at some point during their stay. East Kent Hospitals University Trust (EKHUFT) has consistently fallen short of this 95% target. The Trauma & Orthopaedic (T&O) department at William Harvey Hospital (WHH) has performed particularly poorly at documenting the assessment electronically. The aim of this project was to improve the electronic VTE assessment rate in elective orthopaedic patients within the T&O department at WHH to meet the national targets of 95% by March 2017.

Methods

The Plan Do Study Act (PDSA) methodology was used in this project with retrospective data collected from the hospitals computer systems to form a baseline. Total electronic VTE assessment completion, percentage of consultants reaching 95% electronic VTE assessment completion, and average time taken from admission to completion of electronic VTE assessment were three measures we used. PDSA Cycle 1 focused on raising awareness with, and educating, one T&O consultant. Cycle 2 extended this education to the whole department by presenting at an audit meeting, creating a 'stop point' to the patient pathway in theatres and encouraging the ward doctors to complete outstanding electronic VTE assessments on the wards. Cycle 3 involved displaying 'prompt' posters in theatres and displaying a conference-style poster in the education centre.

Outcome

Baseline electronic VTE assessment completion for the department was 83.2% (n=14). The first two PDSA cycles resulted in a positive shift in the data and a change in the median to 85.1% (n=16), with much of the change occurring in cycle two, median 87.2% (n=9). Unfortunately, PDSA cycle 3 resulted in a decrease in performance.

Conclusion

Simple interventions can improve VTE assessment compliance in the short term but long-term changes to the patient pathway are required to sustain improvements. Further work is required to reach the national targets.

Equip, Empower, Engage: an investigation into the information needs of patients and parents at a paediatric teaching hospital

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Background

Our study was conducted at the Royal Hospital for Sick Children Edinburgh (RHSCE), Scotland, a national quaternary referral centre and teaching hospital with over 50,000 emergencies and 8000 admissions per year. We aimed to evaluate the information needs of families and paediatric patients and examine the availability and quality of child-specific information resources at the study hospital and in hospitals globally. Systematic reviews of nine hospital websites (UK, Australia and USA) and the child-specific resources available at 36 national and international hospitals was performed. Interviews were conducted with families, paediatric patients and play specialists. Furthermore pre-admission visits and surgical pre-assessment clinics were observed. Our audit highlighted the need for improved patient centred information and revealed a scarcity of appropriate resources, in particular to support children during acute hospital admissions.

Methods

A child-specific interactive information booklet with stickers representing team interactions was trialled; further development is underway after two "Plan-Do-Study-Act cycles." This will be complemented by a new website, providing information on facilities, medical conditions and out-of-hours services. Currently, ward routines are only reviewed at the point of acute admission and as most children are admitted in the evening, parents are often exhausted and focused on the acute health problem therefore, may not remember organisational information. To improve the current hospital website, a funding application has been made. It is hoped the website will be completed in time for the opening of the new children's hospital. Children, families and staff fed back during the first trials of the booklet and evaluated website test pages. A longer trial and feedback period is planned, with final booklet launch in late 2018 and an online version once the new hospital is built.

Outcome

Early impact evaluation of the first two versions of the booklet conducted in an observational study, with semi-structured interviews with paediatric inpatients, families and play specialists suggest a significant improvement in the child's experience and sense of empowerment and understanding whilst in an inpatient setting. One child has taken the booklet back to school and discussed his hospital stay at "show and tell". Parents commented that having the organisational information including where to get snacks, nappies and timing of drug rounds, enabled a better experience and understanding of the hospital.

Conclusion

There is a need for improved patient centred information. Scoping exercise of hospitals revealed a scarcity of appropriate resources with a lack of focus on simple tools to support children during acute hospital admissions. Local information needs are being addressed through a collaborative project, developing a new hospital website and a resource aimed at children admitted acutely. The main challenge will be around long term funding for both the booklet and website but staff, management and families are all very supportive of full progression. Paediatric patients' and families' hospital experience can be improved by ensuring they are involved and provided with adequate information

relating to their hospital stay. It is essential that suitable high-quality resources are consistently available and that feedback from children informs the process of change.

PACTCORDD Sticker

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Background

St Helens & Knowsley Teaching Hospitals NHS Trust (STHK) encompasses two hospitals, Whiston hospital and St Helens Hospital, providing a full range of acute healthcare services across the two sites. Root Cause Analysis of patient complaints and adverse events on the wards identified 9 areas of patient care for the consultant to consider during ward rounds. The quality and safety project involved producing a 'sticker' which would be put in patient's notes at the start of ward rounds, reminding consultants to address the identified areas if applicable.

Methods

A5 sticker designed with the 9 areas of patient care and options yes/no/na. The 9 areas were: Preparation(Has each ward round entry sheet been completed with the patient identifiers?), Antibiotic(For each antibiotic currently prescribed is there an attached duration or review date for an IV to PO switch?), Cannula(Is there a fully completed VIP chart in place for any cannulas currently sited?), Thromboprophylaxis(Has the VTE form been completed? Has the patient been prescribed the appropriate agent?), Catheter(Is there a catheter in situ? Does the patient meet the indications for a short term catheter?),Oxygen prescription(Does the patient require oxygen? If so is there an appropriate prescription in the kardex?), Resuscitation screening(Has the resuscitation status of the patient been addressed and is this decision visible in the notes?), Dementia screening(Have all patients over the age of 75 been screened for dementia?),Discharge planning & EDD(Is there an estimated discharge date?)

Outcome

Use of the sticker significantly increased consideration of all 9 identified areas; preparation (78%>92%), antibiotic (14%>91%), cannula (95%>100%), thromboprophylaxis (84%>97%), cathether (88%>100%), oxygen prescription (0%>100), resuscitation status (6%>71%), dementia screening (0%>6%), and, discharge planning (60%>84%).

Conclusion

The use of the designed 'reminder' sticker resulted in a significant increase in the physician, carrying out the ward round, addressing the 9 identified areas of patient care, leading to improved safety and quality of care.

Building Nurse leadership: Success Case of Early In-Hospital Mobilisation After Cardiac Surgery

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Background

Best Practice Units (BPUs) are “groups of people that strive for the best practice possible and aim to achieve concrete results” (JP Wilken et. al, 2013). A BPU-framework trains nurses and physiotherapists on core competencies and let them apply learned topics within their own department/ward.

We noted that after heart surgery, patients often only exercise with a physiotherapist nearby. Most patients were afraid to suffer from an injury without direct assistance. The major reason is a lack of knowledge on early mobilisation and a lack of motivation for early exercise. Unfortunately, patients confined to bed lose 10-15% of muscle strength (Kortebein, Symons et. al, 2008).

Our improvement project aims to stimulate patients on early mobilisation. Progress of early mobilisation is systematically assessed, with a comparison between usual care and after an improvement project.

Methods

This study was done in Thorax Centrum Twente, Medisch Spectrum Twente Hospital, a tertiary teaching (STZ) hospital in the Netherlands.

In 8 BPU-meetings, participants get familiar with quality indicators, principles of change management, Evidence Based Practice (EBP), developing research questions, professional networks to build joint change projects, how to share results and inspire others. Total study hours are approx. 100 hours including 58 hours physical attendance/ group sessions.

Aim is to coach colleagues, develop and monitor improvement programs, involve team members in change, and to disseminate knowledge.

166 patients that underwent coronary artery bypass grafting (CABG) were included between Fall 2016 (Usual Care Group) and Spring 2018 (Intervention Group). 21 patients served as Usual Care Group (UCG), 145 patients were stimulated for early mobilisation (intervention group).

Outcome

With a large A1-poster at every patient room, patients were stimulated to exercise without attendance of a physiotherapist or nurse. Daily coordination and execution of measurements were done by a dedicated physiotherapy and nursing team at the surgical ward, led by a BPU-trainee from each team.

A 6-point score from the American College of Sports Medicine (ACSM) was used to measure a functional mobilisation level.

Patients in our intervention group significantly increase their daily functioning on this ACSM-scale. It increased both steeper and maintained a high function level during prolonged hospital stay ($p < 0.01$).

Patients approved our project and scored us a great average mark of 8/10. Many requested continuation of our project for their referring hospital. 94% found the exercises clearly demonstrated and 75% found the poster to stimulate motivation. No patients found the poster pushy.

Conclusion

Our BPU leadership program might inspire other centres to implement improved early mobilisation after heart surgery or any medical specialty with multi-day hospital admissions. In our “people-centred-care” philosophy we highlight a bottom-up approach for a work floor cultural shift.

Cooperation from physiotherapy and nursing teams is pivotal. Now, the BPU-trainees coordinate implementation of new early mobilisation at the cardiology ward, where their colleagues register functional development during hospital stay.

ACSM’s functional score adequately shows daily progress in mobilisation after heart surgery. A continuous stimulus (i.e. poster) was given to patients, family and caregivers. This motivates patients and improve their recovery. Implementing a simple tool such as a poster is an affordable and effective method to stimulate early mobilisation.

For future work, the ACSM-framework can be useful as hospital discharge criterium.

Pharmacist and Data-driven Quality Improvement in Primary Care (P-DQIP): A qualitative study of implementation barriers and facilitators from the perspective of practice pharmacists

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Background

The quality and safety of medication use in primary care is an increasing concern in the UK and internationally with an estimate of 4% of all unplanned hospital admissions caused by preventable adverse drug events. Opportunities to identify patients with high-risk prescribing for review has increased with ubiquitous use of electronic medical records. For example, the pharmacist-led information technology intervention for medication errors (PINCER) and GP-led data driven quality improvement in primary care (DQIP), which both demonstrated significant reductions in high-risk prescribing of similar magnitude (30-40%). Combining elements from these trials, P-DQIP aims to develop and evaluate the implementation and impact of an intervention to manage drug therapy risks in older people, which is scalable and sustainable in NHS Scotland. This study aimed to identify barriers to P-DQIP to optimise intervention components and design additional ones to support its implementation by pharmacists.

Methods

The study design comprised of three stages (1) Semi-structured interviews conducted with practice pharmacists using an interview guide based on the Theoretical Domains Framework (TDF) explored participants' barriers to implementing P-DQIP (2) Relevant TDF determinants of behaviour were mapped onto intervention functions and candidate behaviour change techniques (BCTs) were identified (3) Feasible and acceptable intervention functions and BCTs were selected by the research team. First, inductive thematic analysis was undertaken. Second, we analysed transcripts using a framework analysis approach. Comparisons between themes identified were then made. Examination of the theoretical domains generated was undertaken to identify which ones were most relevant to P-DQIP. The selected theoretical domains were mapped onto the Behaviour Change Wheel framework using intervention functions, and BCTs were identified to overcome identified barriers and to target the relevant theoretical domains.

Outcome

Findings were arranged into theoretical domains known to be useful in understanding how best to engage pharmacists to manage risky drug therapy. These included: Knowledge and skills, behaviour regulation, social role and identity, beliefs about capabilities, and environmental context and resources. According to several participants, a system that identifies and flags patients with risky drug therapy would help them manage risky drug therapy. Resources introduced should facilitate reviewing by providing structure whilst highlighting complex priority cases allowing pharmacists more time spent on risky drug therapy, and less time identifying high risk scenario cases. Although protected time to carry out review work was seen as important, they emphasised the value of a systematic approach to manage reviews, so more time can be spent administering the best combination of drugs. Identified BCTs included health consequences, Information regarding behaviour/outcome, and prompt/cues.

Conclusion

The identified barriers, facilitators and BCTs were used to support the implementation of the P-DQIP intervention, which was rolled out across GP practices in NHS Tayside and evaluated in an interrupted time series study with parallel process evaluation. Although not all of the BCTs were used because of limited resources and costs, the ones that were included to develop the P-DQIP intervention could potentially lead to a more sustainable and effective intervention to reduce risky drug therapy in older people in Scotland.

5-year Program of VAP reduction in a Public Hospital in Brazil: Zero is Possible!

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Background

The “Hospital de Transplantes do Estado de São Paulo Euryclides de Jesus Zerbini” is a public tertiary hospital in São Paulo city administrated by Sociedade Paulista para o Desenvolvimento da Medicina since 2010. It is a 153-bed hospital with a 16-bed UCI. Half of the patients that is attended in the hospital are surgical patients (mainly onco-urológic and transplant patients) and half of them are clinical patients (onco-hematologic and cirrhotic patients that are on transplant list). In 2011, the hospital begun a Program to reduce VAP. This program involves 55 hospital healthcare workers per day, including nurses, doctors, physiotherapist, nursing technician, pharmacists, nutritionist and dentist. The VAP-rate in our institution was very high with great impact on mortality and costs. There was no protocol that standardize the care to preventing VAP incidence and the infection control department had showed a VAP rate of 78.5 per 1,000 mechanical ventilation.

Methods

The objective of the VAP-program was to reduce VAP rate from 78.5 to 0 in 5 years. In order to achieve this goal, we have initiated some changes. Here we exemplify some of them:

1. Standardize of all material related to mechanical ventilation. Definition of material exchange time.
2. Evaluation and improvement of the disinfection and sterilization of the material.
3. Bundle implementation (venous thromboembolism prevention, daily holiday sedation, oral cleansing protocol with 0,2% chlorhexidine, ulcer gastric prevention, head of bed elevation 30-45 degrees, cuff-pressure) by the control infection disease.
4. Creation of a VAP-prevention team.
5. Engagement of the physiotherapist.
6. Hire of a dentist to follow the UCI patients and be a part of the VAP-prevention team.
7. Education and trainee of the UCI staff on oral hygiene with the dentist.
8. Engagement of the speech therapist.
9. Nutritional protocol to reduce micro-aspiration during diet infusion.

Outcome

The first big impact happened mainly due to the bundle implementation, the standardize of all material related to mechanical ventilation and creation of disinfection and sterilization protocols of the material (VAP rate decreased from 78.5 to 8.0 per 1,000). In the second phase (VAP rate decreased from 8.0 to 3.5 per 1,000) the mainly problem was the poor oral hygiene. The dentist played an important role educating healthcare workers to do it properly. Another issue was that the infectious disease department was responsible for doing the check-list of the bundle with few evaluations. In 2014 (VAP rate decreased from 3,5 to 0) we engaged the physiotherapist team and they started to evaluate the bundle compliance three-times a day. The mainly factor correlated to the sustained of the results was the multi professional team that monthly discuss the problems and proposes actions.

Conclusion

The current challenge is to keep the team on the alert; even with few VAP cases. Next steps are to improving the engagement of the families in the ICU context. This is a huge lack from the program, although we have a consistent education program for healthcare workers, the family and patients were not involved until this year when we started to give information on VAP definition and prevention for the family. The 5-year VAP-Program was extremely successful and showed that even in a Brazilian public hospital is possible to prevent infection with few resource but a great engaged team.

What happens to our patients? Post-discharge phone call following discharge from a Geriatric Evaluation and Management (GEM) unit.

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Background

Caulfield Hospital specialises in rehabilitation, aged care and aged mental health. We are part of Alfred Health, located in Melbourne, Australia. The hospital has a state-wide role in rehabilitation services and a large component of our care involves providing Geriatric Evaluation and Management (GEM) via our 4 ward, 129 in-patient bed service. Patients often experience difficulties following discharge from hospital. Elderly patients are at increased risk of adverse events in the post-discharge period, including re-admission to healthcare services. Between March 2015 and February 2016, 7.73% of our patients had an unplanned readmission to hospital within 28 days of discharge. 47% of readmissions occurred within 10 days following discharge. We set out to investigate if a structured post-discharge phone call in the days following discharge could effectively identify issues our patients were encountering.

Methods

All patients discharged home are eligible to receive a structured post-discharge phone call from a member of staff involved during their in-patient care. Consent is obtained prior to discharge and an agreed date and time for the call is scheduled. Calls occur early following discharge, ideally within 48 hours. Structured questions are asked on three key areas; the patient's health status, medications and community services. Responses are noted and actions required to resolve issues are documented by staff making the call. Following the call, outcomes are shared within the multi-disciplinary ward team. This process was developed by a cross-disciplinary working group with representation from each GEM ward, following review of research and local evidence. A 30 day change challenge was used for initial process development, trialled and refined through PDSA cycles in one ward over 3 months. Once the process was working as intended, roll-out was driven by a 'champion' within each ward.

Outcome

We retrospectively analysed outcomes of calls made between February and July 2017 to assess the effectiveness of the intervention. Of 134 calls reviewed, staff made contact in 107 (80%). The majority of calls took place within 3 days of discharge, with 79% completed within 5 days. Calls took on average 13 minutes to complete (Range 3 to 60 minutes). 48% of our patients (n=51) encountered a problem following discharge, including issues with their health (14%), medications (11%) and planned community services (17%). When an issue was identified, 40% could be addressed by the staff member during the call, with the remainder requiring further action or escalation to be taken by the staff member.

Conclusion

Post-discharge phone calls are an effective way of identifying issues patients encounter in the days following discharge from hospital and may be able to reduce adverse outcomes, including readmission to hospital. Issues identified through this process are facilitating quality improvement of discharge planning for future patients of our service.

Transplant Patient Experience in a Public Hospital in Brazil

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Background

The “Hospital of Transplants of São Paulo” is a tertiary public hospital, administered by SPDM (Associação Paulista para o Desenvolvimento da Medicina) - a Social Organization of Health (non-profit organization). In order to start our transplant patient experience improvement program, we performed the Hospital Consumer Assessment of Healthcare Providers and System Survey (HCAHPS) v9, translate to Portuguese. The analysis of the HCAHPS may allow us to redesign processes to improve the experience of the patient.

Methods

The survey was applied to 29 adult patients, 10 liver transplanted (deceased donors) and 19 bone marrow transplanted, between May and September 2017. The HCAHPS cover important topics as relationship with multiprofessional team, hospital structure and services, pain control, need for care and medication, overall opinion about the provided care and his/her own health.

Outcome

Most of the questions received favourable responses – considering the questions that this criteria is applicable, we had a median of 90.2% of favourable responses. Two answers (not included above) specially reflect the feelings of the patient: “would you recommend this hospital to your friends and family?” 3% answered probably yes and 97% definitely yes. The other important question was if “Using a score from 0 to 10 (where 0 is the worst and 10 is the best), what number would you use to score this hospital during your hospitalization?” 7% scored 8, 21% 9, and 72% 10.

Conclusion

In spite of good results in transplant patients experience some improvement opportunities were found. The greatest opportunities to improve were related to the time spent waiting for the nurse care when called by the bell; just 11 from 28 (39%) answered always or usually. Interestingly, noise at night was present for 21% of the patients. Unfavourable answers for these questions reached an average of 40%. Some other opportunities of improvement were detected in explanations about medicines and bedroom cleaning.

Based on the results of the survey, specific approaches are planned. According to our schedule, actions in every area will be performed until February 2018.

We showed that the transplant patients had an excellent experience in a public hospital in Brazil however some improvements should be performed.

Quality Improvement Project to Improve Immunisation and Attendance at Gateway Clinics to Improve Health Outcomes for Vulnerable Children

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Background

“Gateway Assessments” are undertaken at Te Puaruruhau, the Child Protection Unit at Starship Children’s Health to identify medical, mental health, educational and psychosocial needs for children who have experienced or are at high risk of abuse or neglect. An action plan to address the identified needs is developed by a multidisciplinary team of health, education and social services. Implementation of the plan is reviewed at three months. There was a High “Was Not Brought” rate for Gateway appointments and for follow-up appointments with medical specialty services following referral from Gateway Clinic and many children remained unimmunised 3 months after Gateway Clinic. The Ministry for Vulnerable Children Social Worker, who did not have extensive knowledge of the health system, was expected to ensure health needs were met. Services within the District Health Board did not have specific processes in place to promote attendance and respond effectively to non-attendance.

Methods

To improve attendance at Gateway:

- A new process for booking appointments and reminders was implemented
- Transport was facilitated
- Large sibling groups were booked on the same day
- Non-attendance was follow-up immediately and reported to stakeholders
- SW who engaged hard-to-reach families were recognised.
- Creative individual solutions were employed such as providing carseats and completing a Gateway assessments on the ward for a hospitalised child.

To improve attendance at medical speciality appointments:

- Relationships with the Starship Community Service were developed
- Process was developed and the Gateway Coordinator followed up non-attended appointments with individual solutions implemented.

To improve immunisation

- A process was developed to gain consent and administer overdue immunisations
- If immunisations were still overdue at three months, individual strategies were implemented.

Outcome

Baseline data was measured by review of clinic notes and the New Zealand National Immunisation Register and was compared with post-intervention data that was regularly gathered. Attendance at Gateway improved from 60% (29/76) to 95% (69/73). Attendance at subsequent specialty medical appointments improved from 55% (6/11) to 100% (12/12). Immunisations remaining overdue after Gateway improved from 88% (8/9) to 14% (2/14.)

Conclusion

Improving processes ensured the health needs of these vulnerable children were better met by the health system. This also increased efficiency for the health system by increasing attendance rates at clinics. The relationships which developed over this project led to other aspects of care being improved due to strengthened networks and communication. Having a plan to measure outcomes as part of 'business as usual' in the future will enable ongoing progress to be measured and maintained. A Quality Improvement approach including measuring baseline and developing PDSA cycles did not take considerable time but allowed for a planned systemic approach to this project.

#TBH Total Bedside Handover with staff and families

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The Sydney Children's Hospital Network, Australia

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The Sydney Children's Hospital Network, Australia

Background

C1South is a 16 bed ward specialising in the care of infants and young children at Sydney Children's Hospital (SCH), part of the Sydney Children's Hospitals Network. Effective handovers are crucial for high quality, safe care, and for continuity of care for patients during hospital treatment. To meet accreditation requirements against the National Safety and Quality Health Service Standards, Australian healthcare organisations must demonstrate adherence to clinical bedside handover. In 2016 over 80% of our families told us that nursing staff handed over at the bedside always or most of the time. However, clinical audits identified adherence to use of a handover checklist were poor. In early 2017 C1South undertook a Quality Improvement (QI) project to improve family engagement in, and nursing documentation of, Clinical Bedside Handover. The SCH Director of Nursing, chair of the Network Clinical Handover Committee, provided executive support.

Methods

After formulating a QI project plan to improve documentation of bedside handover and the nurse to patient/family communication during handover, we developed our aim statement: Within 3 months achieve 100% compliance in the use of a clinical bedside handover checklist and documentation of clinical bedside handover. Mandatory requirements for compliance were clarified and a draft checklist created to trial. Nursing staff and families reviewed the checklist it was tested through simulation. The trial commenced in February 2017 and continued over 3 months. Colour copies were printed and laminated for use with the bedside charts, and for display at the bedside as a visual for families. Documentation of clinical bedside handover was included in nursing electronic medical records (eMR). The CNE and Nursing Manager supervised the trial, encouraging staff participation, and feedback on challenges or adaptations reported daily via email and at the ward meetings.

Outcome

Within 24 hours of the trial starting an eMR audit found 100% of bedside handovers had been documented. Weekly audits were conducted in the first 4 weeks, then monthly since the trial. To date only 1 record of 54 did not comply. During the trial it was identified that staff were relying on the template to document handover without considering the implication of ineffective handover. Further education sessions were delivered using simulation to address this risk. The bedside handover checklist remains visible from each patient bedside. Since the trial began, five other wards are trialling or have implemented this process, adapted to their context. These include the neurosurgical unit, short stay unit, general medical, adolescent ward and mental health unit.

Conclusion

Changing the process for documentation has resulted 100% compliance with documentation of bedside handover, additionally staff have reported that they are now reflecting on the accountability of their practice and what is documented. Understanding what matters to staff and families is pivotal to successful and sustained change. Celebrating quick wins when they occurred maintained engagement and enthusiasm. This encourages staff to think about other areas for improvement and increases their confidence participating in future QI. With families and patients

having a visual prompt of handover they are confident when engaging in handover, empowering them to participate. The next stage of this project is a trial of family-led handover.

Amman Program, The bridge between regulatory role and engagement of stakeholders

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Background

Essential Safety Requirements are defined as essential structures and practices -represented in Saudi Central Board for Accreditation of Healthcare Institutions "CBAHI" national hospital standards manual by 20 standards that hospitals undergoing CBAHI accreditation must have in place and be in full compliance with, to minimize the risk of serious harm and/or death of a patient or a staff member. As Saudi national accrediting body, CBAHI lead Amman initiative to screen all kingdom hospitals against essential safety requirements. In 2016, CBAHI team surveyed 449 hospitals within 5 months period with one trained surveyor then a second round was held in 2017.

Methods

Data analysis of results were used to rank and prioritize improvement plan for both governmental and private sectors. Close monitoring of MOH hospitals compliance through monthly self assessment tool with clear accountability matrix that transcends all executive levels. Many national initiatives was initiated such as credentialing policy dialogue that resulted in credentialing and privileging white paper, civil defense joint meeting to find ways to help facilities complying with fire safety related standards and other stakeholders engagement efforts.

Outcome

Significant improvements were witnessed in all ESRs especially PC.26 "VTE prophylaxis" which increased from 34% compliance to more than 70 % compliance.

Conclusion

Amman program is a successful and internationally unique initiative that balances between the consultative and regulatory arms of CBAHI and engage all healthcare stakeholders around shared goals. Also, It helped in creating an urgency to change and help organizations in addressing Essential Safety Requirements.

Mechanical and pharmacological thromboprophylaxis in a cohort of adult arthroplasty patients at Chelsea and Westminster Hospital

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Background

Venous thromboembolism (VTE) continues to present a significant risk to orthopaedic patients undergoing arthroplasty of the knee or hip joints. Local guidelines at our institution comply with national and international recommendations for combination of pharmacological and mechanical thromboprophylaxis to minimise the risk of VTE, and we sought to determine compliance to these guidelines. Compression stockings should be prescribed electronically to all inpatients without contraindications, in addition to pharmacological thromboprophylaxis which is continued for 14 days post-operatively for knee arthroplasty patients, and 35 days post-operatively for hip arthroplasty patients.

Pharmacological thromboprophylaxis consists of either rivaroxaban 10mg once daily for the entire duration, or enoxaparin as an inpatient, switching to rivaroxaban on discharge. Counselling of the risks of pharmacological thromboprophylaxis should be performed and documented on the discharge summary.

Methods

Study was performed at a 430-bed teaching hospital (Chelsea and Westminster Hospital) in London. To assess compliance to local guidelines, we wanted to assess the following within patients undergoing elective lower limb arthroplasty at our 430-bed teaching hospital. 1) choice of pharmacological prophylaxis regimen; 2) duration of pharmacological prophylaxis regimen; 3) whether, unless contraindicated, patients were prescribed mechanical thromboprophylaxis and; 4) whether counselling of pharmacological thromboprophylaxis agent was documented on patient discharge summaries.

Data was collected from the electronic hospital records system, and all patients who underwent elective knee or hip arthroplasty between 1st January 2016 and 31st December 2016 were included. Findings would then be disseminated to Trust staff via multi-disciplinary meetings, with recommendations based on the audit results.

1. Outcome

1. 100% (296/296) of patients received an appropriate pharmacological thromboprophylaxis regimen
2. 88% (247/280) of patients received pharmacological thromboprophylaxis for a minimum of 14 days following knee arthroplasty and 35 days following hip arthroplasty
3. 57% (305/305) of patients at risk of VTE were prescribed mechanical thromboprophylaxis
4. 32% (88/279) of patients had documentation of rivaroxaban counselling on discharge summary
 - a. When pharmaceutical care notes were analysed, documentation of rivaroxaban counselling was present in 88% (238/272) of patients

Findings were presented at multidisciplinary forums (to surgical, medical, nursing and pharmacy staff), and the findings echoed concerns raised by senior staff previously. Intraoperative documentation of a complete VTE prophylaxis plan on the patient notes was recommended, and staff were encouraged to document counselling on discharge summary when performed.

Conclusion

Thromboprophylaxis requires multidisciplinary input, and multidisciplinary meetings, which include surgeons, physicians, nurses and pharmacy staff therefore serve as ideal platforms to feedback audit results of safety improvement projects, with multidisciplinary discussion to support changes to practice and staff engagement.

Our results for prescription of mechanical compression stockings and documentation of counselling likely represent an issue with accuracy of documentation. This is highlighted by the fact that once pharmaceutical care notes were analysed, the proportion of patients who had documentation of counselling increased substantially. Accurate documentation is crucial for patient safety, and our results echoed pre-existing concerns by senior staff. Continuous education of staff, particularly in specialties where there is a high turnover rate of juniors rotating through posts, is important to ensure safety and compliance to local hospital policy.

Enhanced Recovery After Thoracic Surgery; so much more than just a protocol!

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Background

- In 2016 all healthcare providers contributing to the care of lung cancer patients in the Albert Schweitzer hospital, a large teaching hospital in the Netherlands, merged into the multidisciplinary Centre for Lung Cancer.
- Up to this point, perioperative care for our lung cancer surgery patients was delivered according to the preference and experience of each of the attending healthcare professionals; an integrated approach was lacking.
- This situation resulted in inconsistencies in perioperative care and information, leading to uncertainty for our patients, but also for junior staff and nurses.
- As a surrogate outcome measure for efficiency of perioperative care, we signalled that our postoperative length of stay had been longer than the Dutch benchmark (Median 7-8 days vs 6) in previous years.
- In discussions with our patients and fellow healthcare professionals we agreed that we needed a common perioperative care protocol as a basis for our work as a multidisciplinary team.

Methods

With our multidisciplinary improvement team, we defined three major tasks at the end of 2015:

- Writing a standardised perioperative care protocol, Enhanced recovery after Thoracic Surgery (ERATS), aimed at minimising surgical impact and enabling patients to resume their daily activities as quickly as possible.
- Communication with our multidisciplinary team and patient panel during the development of the protocol, to make the steps and daily goals clear for everybody.
- Rewriting patient information, empowering patients and their loved ones by explaining what they could expect daily in the perioperative period and why.

In early 2016 we completed our protocol after several sessions with all involved specialties and our patient panel, we restructured our patient information to match the perioperative care stages and scheduled multiple lectures and training sessions for all healthcare providers involved. We implemented the protocol in the summer of 2016.

Outcome

Mid 2017, a year after the introduction of our protocol

- Our patients feel well informed at our multidisciplinary outpatient clinic (thoracic surgeon, specialist nurse, physiotherapist, anaesthesiologist)
- Our patients' experiences match the patient information (folder/app)

- The Surgical Team of the Centre for Lung cancer was given the patient centred care award by the hospital's Client Council.
- Junior staff, nurses and physiotherapists felt empowered to make decisions according to protocol, improving their ability to match patients' expectations.
- Post-operative length of stay dropped to a median of 5 days.
- Challenges
- Due to junior staff rotation and the size of the nursing staff it is a challenge to keep everybody well informed about the protocol.
- Protocol adherence is highly dependent on intensive supervision.
- With many healthcare professionals involved, it is important to focus on consistent information for the patients and their loved ones.

Conclusion

- Introduction of our protocol and patient information has increased patient satisfaction and clarity for our patients and staff.
- Postoperative length of stay has decreased.
- Introducing Enhanced Recovery After Thoracic Surgery turned out to be more than writing a protocol. Involvement of all staff members, evaluation of the organisation of care and appropriate patient information are key to ensure successful implementation.
- Challenges remain to turn working according to protocol with clearly defined daily goals and consistent patient information into the new standard.
- With our next protocol update we aim to address this problem by reducing the number of healthcare professionals involved and increasing their level of specialisation.

Keeping Quality and Excellence of Medications at Clinical Trials, Pharmacist Contribution to Patient Safety

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Background

The work was done by the clinical studies unit, part of Pharmacy Services of Meir Medical Center, part of Clalit Health Fund, the biggest health organisation in Israel. Over the last 15 years the unit has been involved in more than 400 clinical trials. Study drugs are stored and being dispensed from the pharmacy. In special cases, they can be hold at investigational sites. Investigators sites were not fully prepared to the JCI check-up prior to our involvement. In addition to the GCP requirements for clinical trials, Israel as many other countries worldwide is obligated to the Accreditation process, evaluated by the JCI. Our aim is to improve the handling of Investigational Products both at investigational sites and at the pharmacy and thus protecting the study participants. Following the required demands needs: deep knowledge of what is required, staff and time. The standards at the sites should be as at the pharmacy. This requires for pharmacist's involvement.

Methods

Few months before the JCI check-up, we mapped the situation at the investigator's sites according to check-list, trained the teams for the required changes. Few weeks later we checked again. The check-ups were conducted with the quality unit of the hospital. The feedback from the sites was welcoming and supportive. We will also describe the work done at the pharmacy unit, throughout 180 clinical trials at 20 different clinical areas. The activities at the pharmacy are done at routine basis.

We developed 2 tools:

The first is a check-list to observe the researches units' routine work. With this check-list we can examine if the site obey every duty when storing and dispensing IP. We present the sites achievements: higher grades were gained after the process. The second tool helps quantify the pharmacy different activities. This tool grades the accuracy of every activity of the clinical trials unit. We check ourselves every 3 months. Our constant improvement will be presented.

Outcome

We engaged the researches teams to join the process. Their collaboration helped proceeding toward an important goal for all of us. This work presents an approach that includes collaboration with researchers units. We found gaps between the required and the actual situation. The joint work with the investigators' teams minimized the gaps. At the pharmacy: using the tool at the clinical trials unit helps us quantify the internal work and improving every activity as needed. The activities at the unit are diverse. Improvements were achieved both at the pharmacy and at research's units. These tools help upgrade the professional work. At the end of the process Meir MC successfully passed the accreditation check-up for the 3rd time and for the 1st time in clinical trials. Looking at the process we implemented, and are continuing to implement, we see the diverse activities of clinical trials pharmacist.

Conclusion

There is a significant contribution of hospital pharmacists in clinical trials. Collaboration with researcher's team upgrades the quality of their work. Giving patients advanced treatment and medication is important in improving their medical condition. Developing tools that can quantify the work contribute to continuous improvement. Keeping pharmacy duties to high level standards ensures providing the highest quality and safest treatment to the patients.

Other clinical trials pharmacists can adopt our strategy in order to maximize their work. This process describes the necessity of our intervention and guidance to investigators' sites. It is our duty to serve as safe guards for every activity concerning study medications. Many can enjoy the benefits of our work: researchers, hospitals and mostly the participants in clinical studies. It is pharmacist's duty to find the optimal way to serve as safe guards for every activity concerning trial drugs.

A journey to improve patients experience in the Fine Needle Aspiration Clinic

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Background

Cytology laboratory is one of the laboratories of the department of clinical laboratories at Kuwait Control Cancer Center, Ministry of public Health, state of Kuwait. We provide mainly: 1 . Fine needle aspiration (FNAC) service (75% of the laboratory workload) covers almost half of Kuwait government hospitals.

Exfoliates cytology, mostly nongynecological (25% of the laboratory workload) The purpose of fine needle aspiration cytology (FNAC) is to:

- Serve as a preoperative indications for biopsy/diagnosis
- Be an indicator of further therapies like surgery,
- chemotherapy, radiotherapy etc.
- Be diagnostic of relapses
- Have rapid diagnosis

Methods

Fine Needle Aspiration (FNA) had become a well-established diagnostic component in pathology. Four improvement interventions were introduced consecutively, a new program for patient's appointment, a new second FNA clinic for FNA blind cases , implementation of co-path system (Pathology Information System), and providing information and instruction about FNA procedure to patients in a clear informative and understandable manner. These interventions were selected based on the annual patient satisfaction survey programme's recommendations. The Standardized questionnaires have been distributed annually to 300 patients on average, for three months: from April to June, 2014-2016. The analysis used a quantitative method for measuring and evaluating patient satisfaction

Outcome

Based on patient surveys and comments , the clinical laboratories department was able to improve patient care. Improvements was to keep waiting to a minimum, so waiting time was minimized. All patients were called within 30 minutes of their appointment time. The waiting area was less crowded, thus alleviating stress. Co-path system helped to avoid long waits for lab results to be released. Analysis of patient satisfaction survey for years 2014, 2015 and 2016 revealed increase from 65%, to 71%, 84% in 2015 and 2016 respectively

Conclusion

Patient satisfaction is a good source for selection of improvement projects. In addition, it is a good outcome measure of care quality, provided that it was designed in a way to ensure validity and reliability. Feedback from patients is an integral part of the hospital's quality improvement process.

Better at Home

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Background

Caulfield Hospital specialises in rehabilitation, aged care (Geriatric Evaluation and Management, or GEM), aged mental health, and community services. Part of Alfred Health and located in Melbourne, Australia, the hospital plays a state-wide role supporting more than 4000 people recovering from serious illness or injury to regain independence and function each year.

With demand for Geriatric inpatient rehabilitation services increasing, Caulfield Hospital's response to increased demand on a day-to-day basis is restricted by 100% bed occupancy. On reviewing data and resources, it was evident meeting increasing demand could not be maintained without looking at additional, more efficient and patient-centred models of care.

Patient feedback also highlighted the desire for more flexible home-based care options that could shorten or avoid hospital admission.

In September 2015, a GEM home-based model of "inpatient" care was implemented to address these issues.

Methods

GEM at Home is provided by a Geriatrician led, interdisciplinary clinical team; medical, nursing, allied health (including innovative cross-discipline Advanced Practitioner role), and pharmacy. This goal orientated, time limited service can increase patient numbers when demand is high, and modify the clinical team to meet individual need. Patients are seen within one day of admission and receive daily visits from one or more disciplines. They have access to 24-hour telephone clinical support and interpreters. The team coordinate care via daily journey board meetings and digital health records. Equipment, pharmaceuticals, other consumables and transport for hospital appointments are provided.

GEM at Home developed rapidly by necessity; within 2.5 months. Cross-disciplinary collaboration ensured an evidence-based, seamless service, with a consistent and comprehensive approach. Service demand and bed capacity needs were established, and staffing and funding requirements were identified.

Outcome

At 12-months there were 286 admissions to GEM at Home; 45% direct from the acute hospital, avoiding unnecessary subacute admissions and transfers. Clinical incidents were favourable compared with wards at 6.7/1000 versus 28.7/1000. There were 34 re-admissions within 28 days; a rate of 8.4% compared to 14.1% for wards. Length of stay was shorter at 13.7 days, compared with 17.8 days for all aged care admissions. A retrospective audit (2017) found Medical and Mobility assessment and treatment were the most common clinical tasks performed.

Patient and staff experience was measured, with both groups providing very positive feedback. Patients suggested increasing patient involvement in discharge planning.

Change was implemented without major obstacles. GEM at Home runs as a 'virtual ward' with performance constantly monitored, and issues arising managed in a timely way. Clinical team confidence increased over time in their ability to manage a more complex cohort of patients.

Conclusion

GEM at Home has provided flexible options for patients to receive care at home, and demand for the service is growing. GEM at Home is now utilised by rehabilitation patients, with renaming of the program being considered to 'Better at Home' to better reflect a broader patient cohort. The high level of capture from the acute setting was not expected, and direct community admissions are also growing. The program has become a proven way to prevent some patient admissions and transfers.

Study on Healthcare Workers' Perception of their Awareness, Skills and Attitudes towards Clinical Quality and Patient Safety

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Background

Healthcare institutions have taken efforts to communicate the importance of clinical quality and patient safety (CQPS) and its concepts. While healthcare workers (HCWs) are constantly taught the right thing to do, implementing interventions in an attempt to guide pro-CQPS behaviour without fully evaluating the factors that direct the current behaviour may be costly and counter-productive. This study aimed to review and analyse HCWs' attitudes towards CQPS, as well as the promoting and hindering factors affecting the effectiveness of these communication efforts, as the first step in the process to explore, define and implement effective interventions. A survey was conducted among doctors, nurses and allied health workers over a period of two months in 2017 in an acute care hospital in Singapore.

Methods

A cross-sectional, anonymous survey was conducted May 1, 2017 through June 30, 2017 in Ng Teng Fong General Hospital (NTFGH) of Singapore. The hospital is a 700-bed acute adult tertiary hospital located in the west of Singapore as part of the JurongHealth Campus under the National University Health System. HCWs from medical, nursing and allied health disciplines within the hospital were surveyed. The survey investigates their current awareness of CQPS concepts, their attitudes toward CQPS, their reaction towards CQPS communications and trainings, effectiveness of these CQPS communication efforts in helping them learn as well as ascertain the promoting and hindering factors which affect the effectiveness of these efforts.

Outcome

While respondents are generally aware of the importance and relevance of CQPS, this is not reflected in their behaviour as they are unmotivated and show disinterest in practising pro-CQPS behaviour. Results showed a knowledge-behaviour disconnect.

Conclusion

There is growing recognition of the role that leadership plays in prioritising safety through visible actions as they are the change agents and role models in promoting patient-centred care. This study has laid the foundation for further engagement with leaders of the organisation to develop a framework for change in driving staff's commitment in CQPS.

Review and Standardisation of Risk Identification and Evaluation Methodology

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Background

There are reactive and proactive sources of information that could be harnessed to identify and analyse the organisation's significant clinical risks. Internally, incidents are reported and monitored at different platforms. While the clinical departments conduct investigation and undertake improvement efforts to prevent recurrence of similar incidents, these incidents were not analysed collectively to identify and prioritise the key areas to focus our resources on. We embarked on an effort to utilise both reactive and proactive sources of information within the organisation to systematically identify and prioritise clinical risks.

Methods

A total of 1110 incidents were analysed. Each incident was assessed on their likelihood and consequence. The likelihood scoring system is a 5-point scale from 'Rare' to 'Almost Certain'. To assess the collective likelihood of each incident type, a weighted average method is applied, where the mean is calculated by giving more consideration to incidents with higher individual likelihood. Each scale of the likelihood is given a weight, with 'Almost Certain' being given the highest weight of 5 and 'Rare' being given the lowest weight of 1. For the consequence, the worst actual outcome is used. A risk score is then generated by multiplying the weighted average likelihood by worst consequence. These incidents were then sorted into top incident types and top root causes, ranked by the risk scores. We then factored the significant events occurring internally and the thematic issues identified at other hospitals. The results of the internal patient safety culture survey were also considered.

Outcome

Through reviewing the trends, severity and practicality to action upon, the top clinical risks in the high risk zone were generated. These top risks then undergo another round of assessment and endorsement by the senior management. At the same time, the risks owners were assigned to review and implement existing and new risk mitigation strategies at organisational and departmental levels. The final top clinical risks were Results not reviewed/delayed; Delay in escalation and response; Wrong medication dosage regime; Patient's fall; Non-compliance to established protocols; and Patient misidentification. The risk assessment exercise was undertaken in a cycle that allows for mitigation strategies to be weaved into the organisation work plan cycle so that resources could be allocated to support these mitigation strategies.

Conclusion

This methodology will enable the organisation to systematically identify and prioritise clinical risks. Clinical leaders are able to track the effectiveness of risk mitigation strategies and look out for emerging risks.

The current limitation of this revised method lies in the scope of the information sources used in the review, where the majority is from reactive sources. Moving forward, the team will work towards factoring more proactive sources into the review, and also step up on active monitoring in order to be more responsive to risks.

SHERPA study of the difficult steps in facial nerve trunk identification in parotidectomy

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Background

Over the past few decades, the training environment for surgeons has changed significantly with the addition of simulations and comprehensive mark schemes. A potential problem we identified was that trainers may fail to recognize the surgical steps trainees find difficult, possibly due to their personal unconscious competence in the area among other factors. Systematic Human Error Reduction and Prediction Approach (SHERPA) is a Human Factors method we employed to study potential errors but there is limited research on its application in surgical training.

We believe that by breaking down the procedure and studying the perioperative errors that could occur, we are able to encapsulate the technical and non-technical skills involved in the procedure which helps to improve student comprehension and competency. This method explores the errors and their effects, recovery steps and preventative measures that can be put in place. This project was carried out in Ninewells Hospital, Dundee, UK.

Methods

A literature review using surgical textbooks and online resources formed the basis of our Hierarchical Task Analysis (task breakdown). This was followed by revisions conducted with a consultant ENT surgeon so that it was clinically relevant. A focus group with 3 ENT consultants and 3 trainees was then held to conduct SHERPA and compare the views between trainers and trainees.

Currently, we are in the process of launching a nationwide SHERPA-focused survey to increase our data sample and gain additional insight into variations in perception.

Our findings will form the framework on which our training aid will be constructed. In the future, we aim to recruit trainee surgeons and randomize them into a group that uses the training aid in addition to current training and a control group that does not. We plan to use performance markers such as training time, trainee confidence, rate of success in each step, number of errors, and time taken for error recovery as indicators of success.

Outcome

In the initial pilot, we were able to construct a HTA of the identification of facial nerve in parotidectomy. The procedure involved a total of 55 steps which was then cut down to 37 steps following revision. Of the 37 steps, only 2 steps were considered challenging for the trainees by the trainer involved in the revision. The focus group conducted showed that trainers considered 4 steps out of the 37 as challenging for the trainees as opposed to the trainees themselves who found 7 steps challenging.

We anticipate that the survey data will assist in constructing a comprehensive picture of parotidectomy looking at the procedure, perioperative error and perceptions of difficulty. The teaching aid would ideally form a concrete platform

where trainers and trainees are able to align their respective goals and reflect on their surgical skills. The end-goal would be to improve technical and non-technical skill acquisition and competency in surgery, and by proxy, better patient outcomes.

Conclusion

In our pilot study, we identified that SHERPA is a useful and effective tool to both describe and understand a surgical procedure and the associated perioperative errors. It also played an important role in conceptualizing technical and non-technical skills in the study. Preliminary results also suggest that there might be a gap in trainer and trainee perceptions of difficulty which could potentially act as a barrier to task competency. As such, we believe that SHERPA is well placed to address this issue as well as to augment existing surgical training.

As this area of research is relatively unexplored, it was challenging for us to initially devise a solution to our problem. With the help of our supervisors and by studying existing literature in different sectors, we were able to adapt these methods into a healthcare setting. Although our project is a work in progress, we anticipate that it will be efficacious in establishing better communication and teaching in surgical training.

Learning from patient experience: Qualitative analysis of complaints to drive quality of care

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Background

Understanding patient experience is paramount to the delivery of patient-centred care. A valuable source of patient experience is the letter of complaints. Patients can recognise a wide range of problems in healthcare delivery. Their unique insights can identify areas for improvement to further strengthened the quality of care. Our project aimed to promote organisational learning from the written complaints received. It is a collaboration between medical, nursing and patient experience team in an acute tertiary hospital. We focused on consecutive letter of complaints involving the acute and general medicine.

Methods

Consecutive written complaints involving the department of acute and general medicine from January 2016 to December 2017 were included. This study examined the viewpoint of the complainant at the initial complaint. Any subsequent correspondence or the perspective of staff were not examined. All documents were anonymised. Briefly, each researcher immersed in the contents before independently identifying themes. The researcher discussed and compared the themes. Once the final set of themes were agreed, a framework was devised. The themes were mapped into categories. The categories were developed inductively. A second level of analysis was then undertaken to identify associations between themes to develop a conceptual model.

Outcome

A total of fourteen complaints were qualitatively analysed. The most common themes were communication, experiences of care/discharge and care environment. Of these, communication emerged as the most frequent. Negative experiences with communication were related to the lack of shared decision making (concerns were not being listened to, requests for end of life care were ignored), communication failure (lack of information, delay in providing information) and incorrect information. Poor communication was also associated with negative experience with discharge (discharge plan was not adequately communicated). Other negative experience was related to unresolved medical problems at discharge associated with deterioration and readmission. The main themes that emerged with the experience of care were quality of care (substandard care), dignity and care environment (noise level). Positive themes were associated with timely care and good standard of clinical care received.

Conclusion

Our preliminary data highlight the importance of communication and the impact of poor communication on patients' perception of care. Multidisciplinary and junior doctors' quality improvement sessions will be used to address this issue. Additionally, we plan to perform qualitative interviews to capture patients experience in specific areas such as communication and discharge. It is hoped that the project will lead to a robust framework to enable systematic analysis of future complaints. Future feedback or complaints will be analysed to determine the emerging themes for continuous improvement.

Nurses' Perceptions of Patient Safety Culture in Oman

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Background

Patient safety is an area of ongoing concern for Oman. There is only one teaching hospital in the country that also conducts research. It is striving to improve the quality of health services to ensure and enhance patient safety. However, there are issues with patient safety relating to policies, processes and systems. Also nurses' attitudes and perceptions are unknown on patient safety but are known to affect care. The focus of this work is on the perceptions of patient safety culture of Staff Nurses working in the medical and surgical wards in Oman's only teaching hospital.

Methods

Mixed Methodology using Explanatory Sequential Mixed Methods was employed. Phase I was a quantitative study using a web-based-survey of 330 nurses. Phase II was an exploratory qualitative design that contributes to deeper understanding of nurses' experiences using four focus-group-interviews according to grade of staff. The results and findings were mapped against the Manchester Patient Safety Framework (MaPSaF).

Outcome

The response rate in Phase 1 was 62.9% (n=204). The response rate in phase II was 98% (n= 38).

The Key results from Phase I questionnaire showed that: The dimension that has the highest result of positive responses is 'Supportive teamwork within units' to carry out health care duties (84%). This is followed by 'Receiving good feedback and communication about error' (81%) and 'Continuous Improvement for organisational learning' (79%).

The Key findings from the focus groups were:

- Communication was considered an important factor in patient safety.
- Equity and fairness among nurses from different specialities within an organisation had an impact in creating safe practice; where a non-punitive culture needed to be established more within their organisational culture.
- The culture of blame placed responsibility for patient safety upon nurses and nursing leaders.
- There is a multi-cultural workforce where equity and fairness were highlighted.

Conclusion

There were identified strengths in teamwork and educational and training activities. However, there are weaknesses in evaluating incidences and best practices where a non-punitive response to error should be promoted. To establish a robust process for the reporting, evaluating and feedback of errors to support learning from errors is a key area. New aspects around a multi-cultural nursing workforce, the infrastructure to support the role of the nurse and communication aspects all require further research and practice development.

Better everyday life in long term care

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Background

The Nursing Home Agency is the largest operator of nursing homes in Norway.

The vision of the Agency is: "A full life lived in safe surroundings". The Agency has 40 long term nursing homes, housing 3 700 residents and employing 12 000 people.

Even though in reality they are the residents' last homes, Oslo nursing homes have been traditional institutions, built and furnished like hospitals. Daily activities have been performed by staff, ready made food and supplies have been delivered at the door and laundry and garbage collected and removed. The residents were previously not involved in household tasks and had few activities to keep them occupied. This caused passivity, wandering, agitation and depression.

Other extraordinary activities had to be arranged in order to avoid passivity. These activities were mainly aimed for larger groups and only to a limited degree took each resident's interests and preferences in consideration.

Methods

"Better everyday life" is the concept for long term care for the elderly being implemented in all 40 nursing homes in Oslo throughout 2017 and 2018. The model is based on person-centered care, trust and living life the way that matters to the individual resident. The question "What matters to you?", as well as focusing on "Every day Counts" are guidelines.

The following has been a focus in the «Better everyday life concept»:

- A homely environment and dementia-friendly, favorable surroundings
- Resident's involvement in the household
- Activities based on the residents' previous habits, way of life and interests, individually or organized in small clubs
- Establishing in-house small supermarkets where the residents shop for groceries (together with staff members)
- Pubs, bars and restaurants within the homes
- Pets and fish ponds
- Bringing the community into the homes
- Education of staff members in person centered care and other related topics

Outcome

The physical environment, carer mindset and culture in our nursing homes have changed from "institutional" to "homely". The use of medication has decreased, and costs are lower due to different activities in the concept. There is increased well-being and satisfaction among residents and relatives, and due to person-centered care staff members regard residents as individuals with different personalities, history of life and interests. Performing everyday household activities contributes to inclusion and involvement, and increases the feeling of a meaningful life and of being useful.

Conclusion

Changes are challenging for staff members and several actions like kick-offs, workshops, conferences and education

programs have been taken to avoid this. Involvement of employees, residents, relatives and volunteers has been crucial, as well as firm leadership.

Oslo nursing homes are in the process of reforming institutions to homes, where residents live their lives as similar as possible to the life they previously led. The focus has changed from diagnosis and malfunction, to individual values, preferences, ways of life and ideas.

The way healthcare workers think and execute care have changed, providing thousands of nursing home residents not only better quality of treatment and care, but also of life.

Implementation of Clinical Pathway for acute pharyngitis in children: a pre-post study in an Italian tertiary care children's hospital

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Background

Acute pharyngitis is a common condition in children and represents a leading cause of paediatric outpatient visits and admission to Emergency Department (ED). As other upper respiratory tract infections, pharyngitis is usually caused by viruses and only 37% of cases are estimated to be due to bacteria, namely group A beta-hemolytic *Streptococcus pyogenes* (GAS). Clinical guidelines recommend that children presenting signs and symptoms of pharyngitis are evaluated to diagnose GAS infection; whenever bacterial aetiology is confirmed, the first line antibiotic is represented by amoxicillin. Despite that, published studies document that the majority of children with pharyngitis are treated with antibiotics and amoxicillin is less prescribed with respect to amoxicillin/clavulanic acid. This study is aimed at evaluating the impact of a Clinical Pathway (CP) implementation for therapeutic management of pediatric acute pharyngitis.

Methods

We conducted a pre-post observational study at ED of Bambino Gesù Children's Hospital (OPBG), a 607-bed academic hospital in the Lazio Region (Italy). CP on pediatric acute pharyngitis therapeutic management was implemented in December 2016. CP was a one-page decision support algorithm based on the use of McIsaac score, which suggests the presumably viral or bacterial etiology of pharyngitis and indicates when rapid pharyngeal swab test is recommended for confirmation of GAS infection. CP then includes recommendations regarding the optimal antibiotic choice when indicated. The proportion of patients with acute pharyngitis (ICD-9 CM code: 463) who presented to OPBG Emergency Department and who were treated with antibiotics in the pre-intervention period (January-June 2016) was compared to that in the post-intervention period (January-June 2017) using the χ^2 test (or Fisher exact test, if applicable).

Outcome

Seven hundred and one ($n=701$) patients were included in the study: 383 (54.6%) in the pre-intervention and 318 (45.4%) in the post-intervention period. Patients were more frequently males ($n=374$; 53.4%) and had a mean age of 3.9 years (± 3.2 SD). McIsaac score was 0-2 in 414 patients (59.1%), 3-4 in 286 (40.8%) and 5 in 1 (0.1%) patient. Characteristics of patients did not differ in the pre- and post-intervention periods.

The proportion of patients who did not receive an antibiotic prescription significantly increased in the post-intervention period (7.3% versus 23.0%). The proportion of patients treated with amoxicillin significantly increased after the intervention (14.1% versus 53.8%), while the proportion of patients treated with amoxicillin/clavulanic acid and clarithromycin significantly decreased (from 66.1% and 8.1% to 16.7% and 3.1%, respectively).

Conclusion

The implementation of CP increased the proportion of children treated with amoxicillin (post-pre % difference: 40%) and those not treated with antibiotics (post-pre % difference: 16%). However, about 20% of patients were issued an

inappropriate antibiotic; further analysis are needed to better address reasons for inappropriateness (e.g. clinical judgment for each individual patient).

Results of healthcare quality improvement projects lead by healthcare professionals in hospitals during a quality improvement master curriculum

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Background

25 healthcare professionals from different medical professions formed the first cohort (2014-2016) of the Dutch Federation of University Medical Centers master program 'Quality and Safety in Patient Care'. The program aimed to train healthcare professionals to become leaders in evidence-based improvement in the quality and safety of healthcare by leading a quality improvement project (QIP) in their own workplace. During the master, 17 unique QIPs were carried out in 15 different hospitals in the Netherlands. To our knowledge, no data are available on the effects of QIPs led by healthcare professionals during a master program. Therefore, we investigated the following research questions:

1. What are the results of the QIPs related to Institute of Medicine (IOM) dimension, focus on professionals or patients, effect-size, and effect-significance?
2. To what extent are the QIPs sustained in their local settings?
3. To what extent are the QIPs spread outside their local settings?

Methods

A mixed-method study was conducted to evaluate the impact of the QIPs. We performed a document analysis of the project theses to determine the project aim and IOM dimension, the project focus, effect-size and effect-significance. To determine the extent of sustainability, we used the short version of the Sustainability Instrument (Slaghuis et al., 2011). To determine the spread, we used the Spread Instrument of Quality Improvement in Health Care (Slaghuis et al., 2013).

Outcome

Most QIPs' aims (n=7) fitted the safety domain of the IOM dimensions. Most QIPs (n=11) had primary outcome measures (POM) (N=33) that focused on health professionals; six used patient-related outcomes. Due to the small samples sizes, significance was not measured for the majority of POM [75.75%]. Three POM were significant, and no significant effect was found for five. Although the effect-sizes are diffuse and not robust, none of the QIPs found overall negative effects, and almost all show premature positive outcomes.

We analyzed 13 questionnaires about the sustainability and spread of the QIPs. Six students experienced their QIP as sustained on the department. The majority of students (n=10) considered the intervention of their QIP to be spread within the organization; a relatively large proportion (n=8) reported that the intervention was spread outside the organization. In the majority of QIPs, presentations (n=10) and training (n=11) were organized to spread the intervention.

Conclusion

Due to the nature of the QIPs, the individual effects of the projects are small. However, we see that graduates actively disseminate and implement quality improvement initiatives, showing that the master's curriculum has resulted in

quality improvement awareness. By training new cohorts of students, we aim to increase the number of quality improvement leaders, thereby improving the professionalism of healthcare practitioners.

The way in which the Dutch hospital Medical Spectrum Twente is learning from serious incidents

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Background

Medical Spectrum Twente (MST) is a topclinical hospital in the East part of the Netherlands and is located close to the German border. All large specialisms are represented and the hospital is tertiary care centre for several conditions. By means of retrospective analysis of reported incidents, the hospital is continuously improving their quality and safety of care by improving their system and learning from what went wrong.

Methods

The seriousness of the incident determines how the analysis will take place. Less serious incidents are analysed by the department where the incident took place. In case of serious incidents, the hospital is responsible for reporting this to the Dutch Healthcare Inspection (called IGJ) and start an investigation to determine system errors and take measures to improve system to prevent this incident to happen in the future. MST has an independent multidisciplinary group of health care professionals trained in the SIRE methodology; Systematic Incident Reconstruction and Evaluation. They are responsible for the investigation of serious incidents. For every investigation, a report accompanied by clear measures for improvement is sent to the IGJ. Every year the number of reported serious incidents increases, which means that the safety culture is developing more and more towards a culture in which professionals feel safe to report if something went wrong and are willing to learn from it.

Outcome

From 2014 to 2017 80 serious incidents are investigated and reported to the IGJ.

The SIRE report contains clear improvement measures (What). It states at which department the measures should be implemented (Where) and the reason for this measures to be taken (Why). It also states which person (Who) is responsible for implementation and gives a deadline for every suggested improvement measure (When). To make sure that every critical incident results in an actual improvement of patient safety the PDCA (Plan, Do Check, Act) cycle is used. Since 2016 MST structurally involves patients/ their relatives during their investigation which results in a better understanding of what matters to patients/ their relatives and an increased feeling of transparency about what went wrong. Also, patients/ their relatives mostly feel relieved to hear that the hospital is doing its very best to make sure they will prevent this incident from happenings again in the future.

Conclusion

Since 2012 MST is constantly improving the way we handle serious incidents. This results in a willingness to report and learn from serious incidents and in realistic and effective improvement measures. The role of the patients / their relatives becomes more and more important in the entire process. This also leads to new challenges, when it comes to the process lead time and the focus of the analysis.

We work together with 7 hospitals (called the Santeon group) to exchange experiences and good examples, and we exchange alerts about things that went wrong so the other hospitals can also learn from that. That way we improve the way we work and we learn from each other how to handle serious incidents the best we can.

This results in high ratings from the IGJ and a decrease in complaints from patients and their relatives.

Does hospitalisation present patient safety vulnerabilities for children with intellectual disability? A systematic review and narrative synthesis

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Background

The association of poor quality care during hospitalisation with iatrogenic harm and adverse

events (AEs) is well documented. Heightened vulnerability to poor quality care during hospitalisation is evident in particular populations. For example, people with Intellectual Disability (ID) have higher rates of preventable, premature mortality than the general population and experience poorer quality care during hospitalisation. Children are vulnerable to AEs due to unique iatrogenic risks, and those with complex medical needs are reported to experience higher rates of AEs and prolonged admissions during hospitalisation. However, the vulnerability of children with ID to iatrogenic harm is not yet fully understood. It is crucial to identify the factors of hospitalisation which lead enhance the likelihood of iatrogenic harm so targeted improvement interventions can be devised. This issue has both ethical and economical significance for healthcare organisations.

Methods

The PRISMA statement for systematic reviews was used to guide the conduct and reporting of this review. A narrative synthesis approach was used in the analysis of the included studies to report emerging themes within the literature. Quality of the included studies was assessed using the Quality Assessment Tool for Studies with Diverse Designs.

Key words, synonyms and MeSH subject headings that related to iatrogenic harm, children with ID and hospital settings were collaboratively determined with subject matter experts, and applied to six electronic databases: Medline, CINAHL, Embase, PsycINFO, Scopus, and Web of Science. Titles and abstracts of publications between January 2000 and August 2016 were screened for relevance. Included studies met the following criteria: English language; empirical research; involved participants aged 0-18 years; involved children with ID; involved participants hospitalised as an in-patient; and referenced patient safety outcomes.

Outcome

Sixteen publications met the inclusion criteria.

The narrative synthesis revealed three themes; the need for health care workers (HCWs) to understand ID in children to know how hospitalisation may compromise their safety, care quality and treatment outcomes; the impact of HCWs' assumptions about children with ID on care quality and associated safety outcomes; and reliance on parental presence during hospitalisation, inferring that parents and HCWs share tacit concerns about the safety of children with ID in hospital environments. None of the studies determined rates of iatrogenic harm amongst children with ID, or quantitatively determined risk factors for this.

The overarching concept linking these themes is that when parents are not engaged as partners in their children's care, HCWs fail to obtain an understanding of the factors associated with ID that increase the vulnerability of these children to iatrogenic harm.

Conclusion

The vulnerability of children with ID reportedly increases their likelihood of experiencing poor quality care and iatrogenic harm during hospitalisation, impacting on treatment outcomes. Patient safety outcomes in this context appeared to be interlinked with quality of care. HCWs' assumptions and stereotypes exacerbate existing health disparities for this population, creating a health inequity. The ubiquitous nature of this disparity suggests that the quality of care provided to children with ID is not only an issue for individual hospitals, but also a health inequity issue for health systems, worldwide.

Improving HCWs' knowledge of children's specific ID, through parental input, is associated with improved outcomes of hospital treatment. By partnering with parents and carers to plan care during hospitalisation HCWs can improve care quality and optimise treatment outcomes for these children and other vulnerable patient groups.

72 Hours Open Access Implementation

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Background

Singapore General Hospital (SGH) was first established in 1821 and till date, it is the largest and oldest hospital in Singapore, constantly providing patients with the most optimal care with latest state of the art technology in an affordable healthcare environment. In August 2016, the Operating Theatre Management Unit (OTMU) was formed, with its main objective to optimize Operating Theatre (OT) resources.

Based on OT utilization data collected, it shows that SGH has an average of 80% utilization, hence highlighting the room for improvement. OT being the key asset of the hospital and due to the high operational cost involved, it is extremely important to ensure optimization.

Work fatigue also arises among Nurses and Anaesthetists when cases run overtime when it could be avoided with better management of listings.

Methods

PDCA model was adopted to identify the chokepoints and implementing the solution. Detailed walkabouts, process mapping and extensive data analysis were done.

Consolidated findings showed that there is an imbalanced distribution of scheduled cases. A strong “ownership” mentality among Surgeons results in under-utilisation of certain lists. In order to resolve this issue, the 72 hours open access listing was implemented i.e. once 72 hours kick in, OTMU will manage and assign suitable listing slots across all OTs. On a daily basis, OTMU will monitor and highlight the over-listed and cancelled cases.

The implementation was carried out in 4 phases. A pilot trial was first targeted at only 3 departments to assess the practicality of the whole initiative. Roadshows were conducted to all involved stakeholders to educate them on the proper workflow and guidelines prior to implementation. Feedback was garnered and workflows were fine-tuned constantly prior to the next phase.

Outcome

A total of 589 cases were added through OTMU since the pilot rollout within a period of 10.5 months, of which 57% were listed either to another Surgeon's (within same department) or another departments' list. This suggests that 336 patients have since benefited due to this increased flexibility of listing in another Surgeons'/Department's slots.

The OT utilisation has increased by 7% while wait time to surgery has improved by an average of 5 days. 43% of the cases initially scheduled to overrun were successfully shifted to other OTs to avoid overrunning.

This implementation has not only improved OT utilisation, but also increased the flexibility of adding surgeries given a short leap time, thereby improving patient's waiting time for surgeries. Lists are more evenly distributed with unnecessary overtime, thereby reducing work fatigue among staff and minimizing patient safety errors. Less wastage in the operational, manpower and other resource costs can also be seen.

Conclusion

One of the major issues faced is changing the mindset of Surgeons to accept the new “sharing” system. There is a constant need to communicate with various stakeholders. It is also key to gain support from Senior Management.

In addition, the existing listing system is unable to automate the blocking and unblocking of list, hence making it labour-intensive. Hence, prior to Phase 2, enhancements were made to the current listing system to improve the blocking and unblocking mechanism.

With better management of OT resources, it can reduce wastage in operational costs, reduce patients’ wait time to surgeries and improve employees’ morale.

As much as we constantly strive to provide the most optimal care for our patients, we must not neglect the morale of our employees, whom we valued.

Patients safety during Cardiac Invasive Procedures, the use of Time Out - an Improvement Project.

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Background

Due to serious adverse events in our Catheterization Laboratory (Cath Lab) we realized that we needed to revitalize our safe surgery procedures. Reintroducing Time Out - one of the key elements of Safe Surgery, was planned. Time Out is important for the safety of the patient.

The lack of Time Out influence the information shared between the physician, nurses, and patients. Thus, the nurses felt they were missing important details about treatment plan and strategies. On the other hand, they also believed that the patient could experience discomfort and uncertainty on the staff's skills and experience the feeling of not being involved in the conversation. At the Cath Lab we are performing 3000 CAG (Coronary Arteriography), 1000 PCI (Percutaneous Coronary Intervention), 1000 Pacemaker, 300 ICD operations and 250 ablations of heart arrhythmia per year. At the Cath rooms we work in teams, which consist of four professionals. One physician, a scrub nurse, a primary nurse, and a floor nurse.

Methods

Our aims.

All CAG/PCI patients (100%) obtain structured Time Out before every invasive procedure by the end of 2017.

Maintaining the patients feeling of being involved in the conversation, the feeling of being safe and "taken care of" during structured Time Out.

We used the Model for Improvement, and the consistent use of outcome measures. We collected data daily and presented the data weekly in the Cath Lab, during interdisciplinary staff meetings on our Quality board and discussed the results. The improvement team met once a month to discuss the progress. Many PDSA tests was used to obtain our aims.

We repeatedly involved the patients by measuring the patient satisfaction. We monitored whether the focus on Time Out affected the patients feeling of safety and involvement. The method we used was patient interviews. Where the questions/statements were inspired from VIBIS - The Danish National Centre for knowledge of user involvement.

Outcome

Based on PDSA tests, a structured Time Out checklist, which contains important items that is necessary to go through, was developed. It is designed to cover the need in a Cath Lab. The checklist ended up functioning as a good support tool for the team during the structured Time Out.

PDSA tests identified expected but also non-expected obstacles in obtaining our aim. Thus, placing X-ray protection clothe hanger in the Cath room facilitated staff involvement in Time Out.

The process measure - patient interviews showed that whether or not the patient was informed about Time Out the results were consistently - very positive.

Outcome measure shows whether structured Time Out was performed before every CAG/PCI, an All or None calculation. Each item in the checklist shall be announced in the Time Out. We increased performance of Time Out, from baseline 31% before CAG and 29% before PCI to a 100% before every CAG and PCI.

Conclusion

The Time Out checklist that was developed, is a valuable tool to remind the staff about the items in the Time Out, so nothing will be forgotten. This is for the security of the patient, ensuring that the risk of severe events is minimised.

Specified information about Time Out to the patient was not necessary. The patients felt safe, “taken care of” and involved in the conversation during the Time Out when undergoing a procedure.

Using the Model of Improvement, we were able to increase performance of Time Out, baseline 31% before CAG and 29% before PCI to 100% performance of Time Out before every CAG and PCI.

A small detail, placing X-Ray clothe hanger in the Cath room facilitated that team members were present during structured Time Out. In addition, there was a reduction of lose time, and improvement of the working environment with shorter time wearing heavy X-ray clothes.

An Assessment of Compliance and Quality in In-Patient Mental Health Services in Ireland

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Background

This study is being conducted by the Mental Health Commission, Ireland. The Commission is the regulator for mental health services in Ireland. In-patient mental health services ('approved centres') are licensed by the Commission and inspected by the Inspector of Mental Health Services annually. The Inspector assesses compliance against the Mental Health Act 2001 (Approved Centres) Regulations 2006 ('the Regulations'). Prior to 2015 there was a lack of understanding and transparency for approved centres about their level of regulatory compliance. Services lacked clarity on what was required to first attain baseline compliance and then to continuously improve service quality. The aim of this assessment was to assess and monitor safety and quality in approved centres by establishing baseline quality of services using a Judgement Support Framework ('JSF') and conducting a comparison over a three year period 2016-2018 to assess the effectiveness of the JSF in promoting quality improvement.

Methods

The Commission's JSF was developed and introduced in 2015 as a guidance document to assist approved centres to comply with the Regulations and to promote continuous improvement in the quality of care and services provided to service users. The JSF provides detailed plain English criteria under four assessment pillars: processes, training, monitoring and evidence of implementation. The JSF sets out transparent scoring criteria for different ratings of compliance and quality. Data were collated from the inspections of 64 approved centres in 2016 and 2017 and included compliance ratings for 31 Regulations, quality assessment ratings for 28 Regulations and ratings under the four quality pillars of the JSF. Data were analysed using frequency and descriptive statistics.

Outcome

Changes in compliance ratings showed improvement in most areas between 2016 and 2017. While compliance is an important measure of safety and provision of services, it does not tell us much about the quality of services. To monitor quality, we used the JSF to assess each Regulation in terms of the required processes, training, monitoring, and evidence of implementation. Comparisons between 2016 to 2017 ratings indicated an increase in services achieving a quality rating of Excellent. To measure the overall service quality and to monitor improvement over time, we looked at services overall achievement against the requirements under the four quality pillars. The percentage achievement against each quality pillar in 2017 gives us a baseline to monitor overall service quality. Going forward this will allow us to correlate changes in quality with changes in compliance and to ask, for example, if a service standardises and audits their processes, does this affect service quality?

Conclusion

The introduction of the JSF has enabled a standardised measure of compliance and quality across all approved centres and provided a method to monitor and report on compliance and quality nationally, regionally and at individual service level. The constantly changing healthcare environment presents a challenge in maintaining the JSF as a standardised measure across three years, while responding to needs to update the guidance. To promote real and lasting change in compliance and quality, services need clear and standardised guidance and sufficient time and support to implement it.

Using claims-based data to determine health outcomes: Incidence of incontinence after radical prostatectomy

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Background

The work was done by the Dutch Health Insurers Association (Zorgverzekeraars Nederland), Business Intelligence Center for Healthcare (Vektis) and the Dutch Association of Urologists (NVU). Prostate cancer is the most common form of cancer in men in the Netherlands. Of all the men diagnosed with cancer in 2017, 21% had prostate cancer.

The risk of permanent functional side effects of treatment of prostate cancer is high. Urinary incontinence is the most common and adverse side effect of prostate cancer treatment. It is unclear what the average rate of incontinence is after prostatectomy in the Netherlands and if this rate differs per hospital or is related to hospital volume. Also we investigated whether claims-based data of incontinence pads can be used to determine the incidence of incontinence.

Methods

Definition of incontinence: claims of one or more incontinence pads per day. For every patient with RP the probability of incontinence was determined, based on the definition of claims of one or more incontinence pads per day. Case mix corrections were made based on indicators available in claims-data. Predicted numbers of incontinent patients per hospital were calculated by adding the risk of incontinence for all patients. Per hospital, a comparison was made between the actual incontinence rate and the predicted incontinence rate. Hospitals were categorised by the volume of RP conducted. We investigated which hospital category was associated with a significantly lower than expected risk of incontinence based on their case mix.

Outcome

The average rate of incontinence 12-15 months after radical prostatectomy is 26,0%. The probability of incontinence was significantly lower in high volume hospitals (more than 100 RP patients per year) compared to lower volume hospitals (less than 100 RP patients per year). This study stimulated the urologists to be transparent about other relevant outcome indicators in the very near future. Also the urologists increased the minimum volume of prostatectomies from 20 in 2017, to 50 in 2018 and most likely 100 in 2019. This all will lead to a decreased incidence of incontinence for patients with prostate cancer undergoing radical prostatectomy and thereby it will substantially contribute to the quality of life of these patients.

Conclusion

It takes time to build trust between parties who have never worked together before. It is possible to use claims-based data to get insight in health outcomes. These insights can be used to improve the quality of care. Working together with health insurers, doctors and data specialists can be very inspiring and contributes to change. Being very open about the interests for each party supports the co-operation. More data-driven analysis is needed to stimulate transparency of health outcomes and thereby improving the quality of life of patients.

Parents' perceptions and practices towards child drowning prevention

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Background

Child accidental drowning is a global health issue and promoting child safety is a pediatric nursing challenge worldwide. Although Chiang Mai province is classified as one of moderate risk areas, but the prevention of drowning in young children is a substantial matter that needs to be implemented concretely and effectively, especially in some high risk areas, which faced to critical situations of death children from drowning within 2 years. Perceptions and practices of parents to prevent drowning in young children both in and around the home are essential knowledge for health care providers particularly. Pediatric Nurses and public health providers need to concern the perceptions and practices of parents to prevent drowning in young children from through recognizing the importance of education and research. This qualitative research study aimed to understand Thai parents' perceptions and practices of their child drowning prevention in and around their home.

Methods

Purposive sampling was carried out for reach of a maximum variation sample. An effort was made to recruit parental couples across risk area of childhood drowning, who have lived at home within 100 meters away from the water reservoir at one sub-district municipality area in Northern Thailand. This exploration was a descriptive qualitative research employing semi-structured interviews. Fourteen interviews of seven parental couples were carried out over four months at the quiet and private settings within parents' home areas which is convenient to participants. The interview process was undertaken up to 60 minutes long. Fourteen interviews were digitally audio-recorded and note taking of the researcher after the participants' consent. The interviews terminated when data saturation happened. The data were thematically analysed, which was inductive approach to identify themes to emerge from the raw data.

Outcome

The potential participants were invited to be taken part in the study at their home based on geographic information and family context of one sub-district municipality. Both father and mother were individually asked for their permission to be contacted by the researcher and to have an interview after reading information sheet and signing informed consent. Fourteen interviews were carried out over four months in quiet and private settings within parents' accommodation areas which is quite convenient to participants. The interview process was undertaken within an hour long. The results show that parents' awareness and practices towards child drowning prevention were inadequate. Parents often prevented child accidental drowning through teaching and supervision techniques. However, all participants also revealed the requirement of education support need from health professionals.

Conclusion

Parents living in moderate risk areas perceive they have inadequate child drowning prevention in and around the home as regards of knowledge, awareness, and practices. The study results also inform the parents' requirement as regard of home visit and information from healthcare professionals, as well as safety devices support from government. The specific database of child drowning prevention behavior among Thai parents can be conducted to the best practice of child safety and injury prevention for pediatric and community nursing domains. A substantial understanding of parental perception and behavior toward child drowning prevention can increase public concern and healthcare professional awareness. A developmental differences concepts of behavior change may provide more meaningful approach to conceptualization and assessment of child drowning prevention behavior among parents.

Anticoagulant use around surgery: estimating guideline compliance and revealing practice variation

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Background

Vitamin-K antagonist (VKA) anticoagulants prevent thromboembolic complications, such as stroke or thrombosis in numerous conditions. The management of patients on VKAs around surgery is complex due to the involvement of numerous healthcare providers and elaborate risk assessments.

VKAs are often interrupted prior to surgery to minimize bleeding risk. Consequently, thromboembolic risk increases. To reduce this risk, shorter acting anticoagulants such as heparins, can temporarily be used to 'bridge' the interruption. However, bridging itself is associated with an increased bleeding risk, urging careful risk assessment.

The optimal VKA management should be effective (reduce thromboembolic risk) and safe (reduce bleeding risk). To achieve this, standardizing the VKA management process around surgery is advised by guidelines. Our aims were to evaluate the reliability of this process in everyday practice in a selection of Dutch hospitals and to determine if practice variation is present.

Methods

We performed a retrospective patient record review in a representative sample of Dutch hospitals. Thirteen hospitals participated: two university, four tertiary teaching and seven general hospitals. Per hospital, a random selection of VKA patients who had undergone surgery in June to December 2015 was included.

Demographic, clinical and admission characteristics were collected. Classification models based on guidelines and verified by our expert panel were used to evaluate the reliability of the VKA management around surgery. Reliability was expressed as compliance with the guidelines on seven criteria: 1) preoperative patient assessment, 2) VKA interruption, 3) INR testing, 4) preoperative bridging, 5) postoperative bridging, 6) bridging restart, 7) VKA restart.

To analyse practice variation, individual hospital compliance with the criteria was determined and differences were statistically tested for significance.

Outcome

Overall 259 patient records were analysed. Preoperative, the record quality was often insufficient to evaluate whether VKAs were timely interrupted (35%) and whether the bridging decisions were compliant (15%). Compliance preoperatively was lowest for timely VKA interruptions (59%) and highest for timely patient assessments (81%). Postoperative compliance was lowest for timely VKA restarts (40%) and highest for the decision to apply bridging (69%).

Significant variation in compliance between hospitals was present for preoperative patient assessments (range 41-100%), INR testing (range 21-94%) and the postoperative bridging decisions (range 20-88%).

Conclusion

The reliability of everyday practice concerning VKA management around surgery was suboptimal due to gaps in patient records and unsatisfying compliance with most criteria. Additionally, due to practice variation, patients were managed differently depending on the hospital. Based on other research it can be expected that effectiveness and safety outcomes in VKA management around surgery will vary depending on the quality of this management.

The evaluated criteria require different efforts to improve their reliability. Improvements in process criteria such as preoperative assessment, VKA interruption and INR testing can be achieved by streamlining the preoperative planning, patient instructions, and communication between professionals. Criteria involving medical decision making, such as the bridging decision, can benefit from computerized decision aids or educative efforts. However, prior to any improvement effort, we recommend exploring the reasons for non-compliance.

Implementation of a regional organisation for systematic and preventive work on patient safety

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Background

Region Skåne is the county council of Skåne in the south of Sweden. Region Skåne plays a leading role in developing infrastructure and strengthen trade and industry, but the dominant activity is healthcare. Psychiatry Skåne is the division in Region Skåne responsible for psychiatric care, with 3,000 coworkers and 56,000 unique patients (2017).

In 2015 and 2016, two analyses of child and adult psychiatry were carried out in Psychiatry Skåne at the request of the Healthcare Committee. The report from the Healthcare Committee showed inadequate systematic work with patient safety, which led to patient harm and the risk of patient harm. The deficiencies in patient safety were a consequence of a safety culture in the organisation where the relationship between everyday less serious events and serious incidents were ignored, and a lack of feedback. To some extent, it was not self-evident to share errors and mistakes.

Methods

In 2016 a special organisation for patient safety was formed in Psychiatry Skåne with the task of working actively and systematically to prevent patient harm. The patient safety organisation consists of a patient safety team within the division management, patient safety coordinators in all clinics and patient safety agents in all units. The main strategies for change were education and implementation of the tool the Green Cross.

Special training: The patient safety team created and carried out a training for the patient safety agents in their workplaces. Shorter versions of the training were given to groups of doctors and unit managers.

The Green Cross: The Green Cross is a simple but systematic method of visualising on a daily basis the patient safety from the patient perspective. The goal of the method is to minimise patient harm and to improve the patient safety culture.

Outcome

The new patient safety organisation has led to a change of attitude and a more ethical approach to the patient safety activities. Through communication and a good approach, the staff is working in a preventive manner and creating good relationships with the patients. The patient influence has also increased; it is the patient's perspective that is important, not the patient perspective.

- The patient safety team has trained at least one patient safety agent in each unit, a total of 170 agents.
- Increase in identified risks of patient harm and adverse events.
- Reduction in number of suicides classified as patient harm.

Conclusion

A separate information channel for working with patient safety and training of the staff in their workplaces have been successful. The Green Cross is a simple, clear and visual method of illustrating the patient safety situation and of changing the attention and attitude towards risks and safety in a positive direction. It has been more difficult for the non-institutional care than the institutional care to find a forum for the daily follow-up of the work with the Green Cross, and patient organisations could have been involved to a greater extent in the patient safety work.

It is important to work actively and systematically with patient safety to create a risk aware organisation where it is self-evident to identify and report risk situations. The staff must feel that they are noticed by the division management and that they have an opportunity to provide feedback. Attitudes, feedback and the right tools are the preconditions for providing a safe care and environment for patients.

Teamcollaboration in Hospitals.....Team Training is “a must have”.

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Background

Medical care for patients in hospitals has become more complex over the years. In one patient, several healthcare providers are usually involved. Ineffective teamwork is susceptible to medical incidents. A substantial proportion of patient care incidents are not caused by lack of knowledge and expertise, but rather lack of communication and cooperation required to effectively put this knowledge into team. Within the collaboration of the eight Dutch university medical centers on improving quality of care, four university medical centers work together on improving team collaboration.

Methods

Expert knowledge combined. A group of experts in the field of interprofessional training- all with experience in design and executing trainings- combined their knowledge in a white paper on the issues concerning interprofessional team training;

- the necessity to focus on teamcollaboration in clinical settings, to maintain high quality of patient care in a continuously changing context;
- defining team-skills that are necessary in this setting;
- describing the additional value of teamtraining for teamskills;
- theoretical background for the design of team training;
- teamtraining should reflect daily practice, both in its participants and content;
- boards and departmental heads should advocate and facilitate training;
- description of the success factors (on strategic level, tactical level, operational level, level of training content and level of quality) for a culture in which teamtraining is considered key to maintaining quality of care.

Outcome

Recommendations:

Based on their shared experiences the expertgroup made the following recommendations:

1. interprofessional team collaboration must be named in strategy and mission of the University hospital, and facilitated by Boards.
2. interprofessional training has to be a structural and accredited part of the health care professionals portfolio.
3. an e-learning should be made by and for all participating centers as a (mandatory?) teaching tool for health professionals participating in teamtraining.
4. interprofessional collaboration should be a standard item in (para-)medical education and training.

Conclusion

Creating an optimal context, framework and support, enables experts in the field to develop soundly based, shared concepts for teamtraining that are practically applicable. Shared experiences also result in recommendations to implement high quality teamtrainings in a hospital setting.

Increasing-time-to-care, more time for patients by improving care processes

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Background

The HagaHospital is a 600-bed, teaching hospital in The Hague (the Netherlands) with 30,000 annual admissions. Our hospital aims to provide high quality patient-centred care, where most of our nurses' time is spent with and for the patient. Recent studies have shown that the time actually spent by nurses dealing directly with their patients is only one quarter to one third of their working time. Measurements, made by our own care-time-app, confirm this. This is why we started the nurse-led 'increasing time to care' programme for our admitted patients. The programme's goals are to increase time spent by nurses with their patients, by improving their own care processes and increasing awareness and stimulating a culture of learning and continuous improvement. This bottom up approach is seeking to increase the level of nurses' and patients' satisfaction and quality of care.

Methods

Our programme has a multidisciplinary approach and focuses on a wide variety of care processes during the patients' journey from admission to discharge. Nurses are provided with several quality improvement tools and are supported by a programme supervisor. They receive a short training to equip them with skills to help improve their own care processes. The programme is based on a train-the-trainer principle, where nurses instruct their own colleagues. It has a modular approach giving all nurses the opportunity to improve.

Patients are involved too. The whole programme is designed to create more time for patients, so their views are highly valued. Results of the programme are visually presented on performance boards on each ward. This also gives patients a clear picture of the results of the programme. They are invited on admission and discharge to share their ideas with hospital staff. Throughout the programme they will be frequently asked for their opinion on proposed improvements.

Outcome

The programme was initially introduced on two pilot wards. All other wards joined subsequently. Results were measured with our own care-time-app. With this app we followed all actions of nurses during several shifts. Pre and post-intervention measurements show an increase in nursing time spent in direct and non-direct patient care while time for non-patient care was reduced. Nurses have also become more aware of their own role in change processes, which has resulted in an increase in their problem solving abilities and a higher continuous improvement culture in the nursing ward. Patient satisfaction has increased, however the programme covers a period of two years, so not all results can be solely attributed to the programme.

Conclusion

The increasing-time-to-care programme has led to an increase in time spent by nurses in direct and non-direct patient care and a reduction in time not spent on patient care. The problem solving abilities of nurses has grown and a higher level of continuous improvement culture has been observed. Patient satisfaction has increased. Wider implementation of the increasing-time-to-care programme is warranted.

Prudent Healthcare: A national approach for stroke services using improvement methodology

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Background

This describes some of the improvement initiatives undertaken by NHS Wales organisations as part of our National Stroke Improvement Group - our strategic group overseeing the implementation and delivery of the National Stroke Plan for Wales. This is the work of 6 University Health Boards and a Teaching Health Board. We cover a population of approximately 3 Million, and provide integrated primary, community and secondary care services in each UHB. The Stroke plan covers the whole pathway from primary prevention, through to hospital based services and life after stroke. RCP SSNAP data shows an improvement projection for Wales' stroke performance, which is monitored monthly with improvement cycles undertaken to ensure continual learning and sharing across the nation. The national principles of prudent healthcare are applied and embedded. Leadership is provided by the National Chair and National clinical lead. of the Stroke Implementation Group.

Methods

The Stroke Improvement Group, supports small scale projects as part of our research, innovation and education scheme, to focus on improvements that would benefit our stroke pathway. These are subject to assessment and scrutiny by a panel from our national group, with support given to ensure shared learning with every health board so we can learn what works well, outcomes, benefits and then enable shared learning across our health and care system, as we continue to drive up quality and outcomes.

Outcome

Stop a stroke AF management 100% uptake of audit tool, NOAC prescriptions increased by 40%, Antiplatelet therapy reduced by 26%, 5 year model prediction: 1106 stroke would be prevented, Care costs would reduce by 25.5%, Total savings over 5 years £5,461,216

Service change from 5-day-7day therapy services. Increased therapy provided by 18% -23% , Patients with a NG tube assessed by a dietician within 1 day, average LoS reduced by 2.5 days, Patient/carer/staff satisfaction high

A Self-Help Book for Psychological Issues Following Stroke

Developed and published a book for stroke survivors and carers in Wales (able to be read turning pages with just one hand). Providing self-help for psychological difficulties. Practical psychological advice broadly based on CBT, neuropsychology and acceptance and Commitment Therapy

Inverse care law programme for CVD

Healthier, informed empowered citizens. Personalised health report, results explained, consistent information, got to know their heart age

Conclusion

Small scale changes work. By focusing on the whole pathway greater scale of change is possible when this is linked with sharing between organisation and co-production with patients. A National approach gives the opportunity for the scale of improvement to be magnified.

Methods to assess preventability of unplanned readmissions via medical record review a systematic review

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Background

A recent review showed that 27% of the all-cause 30 day readmissions are potentially preventable, however, the preventability percentage ranged between 5% to 79%. This is most likely caused by substantial differences in the methodological choices. To improve homogeneity, reproducibility and comparability of preventability numbers, an overview of different methods to assess preventability is required.

To provide such overviews, the main objectives of VU Medical Center are: to identify all methods used to assess preventability, to identify a set of causes which are related to preventable readmissions and to obtain consensus regarding a method of best-practice of the preventability assessment of readmissions.

VU Medical Center conducted a literature review to collect and compare all methods used to assess preventability of unplanned readmissions via medical record review. In addition to this, VU Medical Center further reviewed the cause classifications for unplanned readmissions.

Methods

To obtain an overview of methods, we performed a systematic literature search (Pubmed and Embase) in December 2016 and a reference and a citation check (Web of Science and Scopus) in February 2017. Key terms included "readmission" and "avoidability" or "preventability". This resulted 2504 citations of which 49 were included in the final analyses. We are currently reviewing all causes used for preventability assessment. Main themes of causes are related to: hospital care, hospital organization, integrated care, care provider, patient (disease), primary care and postdischarge environment. To obtain consensus regarding a method of best-practice regarding the preventability assessment of readmissions, we will organize an expert meeting in the second half of 2018.

Outcome

Comparison of 49 included studies showed a large variety in methodological choices, therefore, we were not able to perform a meta-analysis. We identified several imported methodological considerations as potential target for the consensus meeting:

1. Population (all-cause or specific population),
2. Setting and focus (hospital only or also extramural factors taken into account),
1. Sources (medical record or add others sources, like patient's perspectives),
2. Definition of preventability (broad, strict criteria, or assess in advance what is always considered as preventable),
3. Reproducibility (number of reviewers and double check, multidisciplinary view, training and protocol).

Conclusion

These results suggest that consensus is warranted about the best approach to assess the preventability of readmissions. In addition, researchers are recommended to carefully consider the different methodological options (i.e. study population, setting and its modifiable factors, and type of resources) prior to initiating the readmission study. Furthermore, we recommend for future research that the methodological considerations of each readmission study are explicitly reported to increase reproducibility and comparability (e.g. the number of reviewers, review process). In addition, we recommend that hospitals consider a broader focus (i.e. intramural and extramural) when selecting the cause classification for assessing the preventability of unplanned readmissions.

Follow-up and evaluation of patients with malignant brain tumours in East Sweden

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Background

The majority of patients with malignant brain tumour have a varied degree of cognitive disorders, motor weakness, brain fatigue, depressive disorders and perception disturbances. Many brain tumour patients have a rehabilitation need, but only a minority is usually subject to rehabilitation efforts during the care process. There is a great need for a review of the care process with a documentation of the patient's physical and psychological symptoms and quality of life. Therefore we, by a brain tumour team, intend to regularly investigate and follow patients with malignant glioma in East Sweden and systematically document symptoms and symptom proficiency by using different estimates.

Methods

A prospective longitudinal cohort study began in September 2017 with inclusion criteria: Adult patients (> 18 years), patients living in East Sweden with radiologically suspected malignant glioma in the central nervous system scheduled for a neurosurgery procedure and a good general condition (WHO <2). Exclusion criteria are: PAD shows a diagnosis other than malignant glioma, the patient is unable to make a decision about study attendance and poor general condition (WHO > 2). Measurements are performed preoperatively and postoperatively 30 days, three-, six-, nine- and 12 months after the date of surgery. Selected measuring instruments are: Modified Motor Assessment Scale (MMAS), Romberg sign, Montreal Cognitive Assessment (MOCA), Diagnostic and Statistical Manual of Mental Disorders (DSM-5), Canadian Occupational Performance Measure (COPM) and Patient Reported Outcome Measures (PROM). PROM, that's divided into three parts, EORTC QLQ-C30, EORTC QLQ -BN20 and Mental Fatigue Scale, MFS.

Outcome

Today we have preliminary results to report. The study currently consists of eight individuals, two women and six men, with a mean age of 64 years. The diagnoses are glioblastoma, astrocytoma, anaplastic oligodendroglioma and two undiagnosed. No statistical measurements have been performed at this early stage. But we can see that early symptoms as physical and psychological ill health has been noted earlier than before, which in turn means that interventions can be taken at an earlier stage. At the thirty-day follow-up, three out of eight patients have been remitted to the rehabilitation clinic. The patient is connected to a team throughout the care chain which is easy to reach and gives increased patient and family security. The team gains an increased understanding of the symptoms of malignant brain tumour and the new way of working leads to more person centred care and the patients receive regular follow-up up to one year postoperatively, which they didn't get before.

Conclusion

With increased information, new issues arise. For example; where should an individual with depression receive care? We have also received comments from our patients that show that it's an improvement for them as well: "Hello "my" team, just thought to send a test mail and be sure to announce that my weekend has been ok on the whole. Physically, I feel as usual and psychologically, I think it works well, even though thoughts sometimes come across me. Feels completely unreal sometimes that this has happened, especially when I do not feel sick. Lucky you can laugh at the misery anyway" and "It's so nice that you're there, just calling and you're responding and I release all these phone queues."

Our hope is that, when all data has been collected, it is possible to identify what the patients with malignant brain tumour needs have. And with the help from the results, improve the care chain for these patients and their relatives.

Healthcare evaluation of inappropriate use of urinary and intravenous catheters: baseline results of the RICAT-study

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Background

Our quality improvement project is conducted in clinical departments of the internal medicine and non-surgical subspecialties in seven hospitals (three university and four general hospitals) in the Netherlands. Urinary and peripheral intravenous catheters are widely used in hospitalized patients. However, based on the literature up to 65% of the urinary catheters and 56% of the peripheral intravenous catheters do not have an appropriate indication. With the use of catheters some serious complications, like hospital acquired infections, can occur. Our aim is to reduce the use of catheters without an appropriate indication, leading to a reduction of catheter-related complications.

Methods

In a multicentre, prospective interrupted time series analysis, several interventions to avoid inappropriate use of catheters were conducted. The indications for catheter use were based on (inter)national guidelines. The presence and indications are extracted from the medical records in combination with observations of the admitted patients. After the baseline period of seven months, our de-implementation strategy will start with a kick-off meeting, including a competitive feedback report of the baseline measurements per hospital to increase awareness for the unnecessary use of catheters. Furthermore, a local champion (one of the leading physicians) will be appointed to be responsible to create alertness and enthusiasm for the interventions in his or her department. We have 12 months for the implementation of these changes, and the post-intervention measurements start after 4 months (month 4-12).

Outcome

During the baseline period 12.2% (n=324) of the patients received a urinary catheter, and 62.9% (n=1665) a peripheral intravenous catheter at admission. Preliminary results show that 32.1% (range 20.0-47.8) of the urinary catheters and 22.0% (range 17.2-25.9) of the peripheral intravenous catheters do not have an appropriate indication on the day of data collection. Most inappropriate indications are due to longer catheter use than needed. The indications which expire frequently are 'Accurate measurements of urinary output in critically ill patients' for urinary catheters, and 'IV fluids and antibiotic therapy' for peripheral intravenous catheters. The results of the baseline measurements have provided good insight in the extent of the problem in the different hospitals. The causes will be analysed during the intervention period.

Conclusion

In the current clinical setting the use of urinary and intravenous catheters with an inappropriate indication is still frequent. Interventions are needed to restrict the use of catheters and urge catheter removal when the indication is no longer appropriate. The next step is starting our de-implementation strategy to increase awareness for unnecessary use of catheters.

Quality Improvement for Ventilation during Anesthesia

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Background

Our institution is an academic hospital that cares for a complex surgical patient population and performs an average of 1800 anesthetic procedures monthly. Before this project, our practice had no specific protocol or system support to guide best practices in mechanical ventilation during general anesthesia. The decision on how to ventilate the patient was entirely based on provider's personal experience and expertise. A retrospective chart review of major surgical procedures performed between January and December 2012 demonstrated that protective lung ventilation strategies were used in only 40% of cases. There is increasing evidence suggesting that the use of lower tidal volumes - 6-8 ml/kg of IBW, and moderate positive end-expiratory pressure (PEEP), 3-5mmHg, is beneficial for patients without ARDS who are undergoing extensive surgical procedures and results in fewer postoperative pulmonary complications, reduced health care utilization, and improves clinical outcome.

Methods

We used three interventions to stimulate change. The first one was to have available in every anesthesia machine a cognitive aid with tidal volume settings for patients' ideal body weight, divided by gender and height. The second one was to provide concise educational material through an e-learning education module and an expert presentation during a Grand Round meeting. The third intervention was to reprogram the default settings in the anesthesia ventilators using a lower initial tidal volume (400 mL); respiratory rate of 12 and PEEP of 3 mmHg.

Outcome

The combination of all three interventions showed a statistically significant increase in the proportion of patients who were ventilated according to protective standards ($p < 0.001$). After the first intervention, the percentage of patients being ventilated using a strategy considered protective went from 39.4% to 69.9% ($p < 0.001$). Following the second and third interventions, this percentage increased to 85.15%.

Conclusion

This project mainly provided resources, support and modification of our environment to facilitate best practices in patient care. There was no creation of new or different work or workflow. Our group of anesthesia providers was very welcoming of the tidal volume charts placed on the anesthesia workstations. Education was important and modifying the ventilator settings definitely facilitated change.

Improving colorectal cancer pathways with virtual clinics to reduce outpatient follow-up appointments

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Background

The 62-day cancer pathway is a waiting time performance measure set by NHS England, from urgent referral for suspected cancer to the first definitive treatment. As colorectal cancer is the second leading cause of cancer death in the UK, improving compliance to this pathway is clinically significant. This project was based in the colorectal cancer department at Queen Elizabeth Hospital (QEH), Woolwich (Lewisham & Greenwich NHS Trust). All patients referred to QEH with suspected colorectal cancer were followed up in an outpatient clinic, regardless of the investigation results (malignant v. non-sinister pathology [NSP]). As a result, the QEH colorectal cancer services were over-stretched and breaches of the 62-day pathway were often reported, affecting patient safety. We aimed to improve compliance to the 62-day cancer pathway in the QEH colorectal cancer department by replacing outpatient follow-up appointments with virtual clinic letters for patients with NSP on initial investigation.

Methods

We introduced a virtual clinic letter for patients with NSP on initial investigation (endoscopy) to substitute outpatient follow-up appointments for this patient group. This letter was sent to the patient and their GP, informing them of their benign results and discharge from the colorectal cancer clinic (with a safety net). Baseline data, regarding the number of patients with NSP seen in an outpatient follow-up appointment, was collected over a two week period in May 2016, prior to our intervention. We then carried out Plan-Do-Study-Act (PDSA) cycles, implementing the virtual clinic letter and analysed the same indices in a two week period in October 2016. We ensured that both healthcare professionals and patients were not negatively affected by the introduction of the virtual clinics through seeking continuous feedback. All healthcare professionals involved in the provision of the virtual clinics were well-informed and patients had adequate access to support following discharge.

Outcome

Of the patients with NSP, 64.6% (n=31) were followed up in an outpatient clinic in May 2016 (our baseline) compared to 25.5% (n=13) in October 2016, following our first intervention. We achieved a 60.5% reduction in the proportion of patients with NSP seen in an outpatient follow-up clinic in the colorectal cancer department at QEH compared to our baseline, following the introduction of the virtual clinic letter.

The virtual clinic is now a newly-established framework in place in the QEH colorectal cancer department team and patients with NSP on initial investigation are no longer routinely followed up in an outpatient clinic.

Conclusion

We have been able to demonstrate that the virtual clinic framework is a simple, safe and effective tool that can easily be implemented to improve resource provision and compliance to the 62-day pathway in the QEH colorectal cancer division. Further work is underway to sustain this improvement. By sharing our model, we hope other departments and specialties can smoothly and sustainably integrate virtual clinics alongside their current outpatient clinics to improve performance measures, patient safety and clinical outcomes.

Reducing the use of broad spectrum antibiotics by 30% in a lower GI surgical ward by introducing infectious disease specialists at whiteboard meetings

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Background

Stavanger University Hospital (SUS) is a teaching hospital with 7,600 employees, caring for a population of 365,000 inhabitants. The department of gastroenterological (GI) surgery is divided into upper and lower GI, in total performing 2160 surgeries per year. Lower GI performs all colorectal surgery, excluding recurrent rectal cancer and cytoreductive surgery. Intervention was done in lower GI surgery. A multidisciplinary team consisting of wardnurses, infectious disease specialists and GI surgeons worked on reducing antibiotic use. Lower GI surgical patients may be admitted to hospital with infections (eg diverticulitis, perforated bowel), and the surgeries carries a high risk of surgical site infection (SSI). Our department used too much antibiotics, and also incorrect use of broad spectrum antibiotics. This includes lack of competence, fear of undertreating the patient and the complexity of administering narrower spectrum antibiotics (more doses at different intervals etc).

Methods

All admitted patients are discussed at a daily white board meeting. We already had a cooperation with infectious disease to use correct antibiotics. An infectious disease specialist came to the ward three times per week, and the surgeon caring for the patient could ask for guidance. We changed this to the infectious disease participating at the whiteboard meeting twice weekly, with a discussion of all patients on antibiotics. One of three predefined surgical consultants should also be present at the meeting. We added a new category to the whiteboard: antibiotics no/iv/oral. The change was manifest as a slight change in meeting agenda, and all staff (surgeons and nurses) could give feedback at the meetings, or at their discretion (one-to-one, via email, etc).

Outcome

A simple form was filled out at each whiteboard meeting with infectious disease. The ward nurse was responsible for filling this out. Total use of antibiotics is monitored by the hospital and can be broken down by ward. The antibiotic used (ordered by the ward) is documented by the hospital, and we used this data. The data from the forms were plotted in excel. The use of broad spectrum antibiotics was reduced by 30%. At each whiteboard meeting, about 30% of patients had a change in antibiotics; either from broad to narrow spectrum, iv to oral, or discontinuation. We obtained the goal of antibiotic reduction. As a balancing measure, the duration of stay was measured; this remained unchanged (4,5 days pre-intervention vs 3,7 days post-intervention). Also, the rate of SSI unchanged (a reduction in superficial SSI by 2/3 due to other interventions).

Conclusion

Restructuring and more systematic use of resources led to more correct use of antibiotics, and reduced use of broad spectrum antibiotics by 30%. Better use of antibiotics minimises antibiotic resistance.

What Really Matters to You? A Study of Public Perspectives on General Practice in Ireland

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Background

General Practice in Ireland is facing a multitude of financial, social and organisational challenges moving into the future. In recent years it has been recognised that person-centred care can lead to better outcomes for patients and a reduced burden on the healthcare system. As these challenges are navigated, patients must be facilitated and encouraged to voice what really matters to them in order to inform truly person-centred improvement in General Practice. This study was completed in the community in Dublin, Ireland. It was carried out by a Doctor in training on the HSE Dublin/Mid-Leinster Specialist Training Programme in General Practice. The aim of this study was to explore what really matters to members of the public when they visit a GP in Ireland. The aim of this study was to explore what really matters to members of the public when they visit a GP in Ireland. This is the first qualitative study of its kind examining responses to this question in General Practice in Ireland.

Methods

This qualitative study used a structured interview methodology with one question; “What really matters to you when you go to see a GP?” Participants were recruited by approach at a public location and asked if they would be willing to participate. Data was collected by video in order to maximise the quality and impact of participant responses in order to create as full a picture as possible of what really matters to members of the public when they visit a GP in Ireland.

Outcome

Results were analysed using an integrated approach, involving both inductive and deductive methods. The conceptual coding applied to interview transcripts allowed themes to emerge from the participant responses. This informed the formation of the thematic analysis. The resultant conceptualised themes were then arranged into a taxonomy. Responses from the 10 study participants could broadly be subdivided into two overarching themes: the General Practitioner as a person and the General Practice as a service. Positive and desirable traits of the GP as a person included patience, openness, approachability, personability, trustability and good listening skills amongst others. Negative traits included coldness and being too ‘doctorly’. The service factors that mattered most to study participants included time, cost, convenience and the opportunity to develop a personal relationship.

Conclusion

At present there is a dearth of high quality research examining public and patient preferences on what should be prioritised and protected in the inevitable evolution of General Practice. Ongoing neglect of the core principles of person-centred care, and their potential to drive improvements in the quality of healthcare provided in the community risks having a profoundly detrimental effect on General Practice moving forward, and would represent a missed opportunity for the next generation of patient in Ireland to be cared for based on what really matters to them.

Study participants expressed a desire to have their say in shaping General Practice for the better when offered the opportunity. Qualitative participant responses and resultant themes appear to provide rich and valuable perspectives on the context of Irish General Practice today. Their collation provides a valuable road map to help inform how best to develop General Practice in Ireland in a person-centred way.

Specialist advice at the GP's fingertips: an innovative app providing instant access to national dermatology pathways for NHS Scotland

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Background

The Scottish Government's Modern Outpatient Programme aims to reduce the need for routine face-to-face appointments within secondary care settings. This involves using new technology, predicting risk, providing interventions only when necessary and maximising staff skills. Up to 24% of the population visits their GP with a skin related problem every year. There are large pressures on primary care services, but dermatology training for GPs is not compulsory, and wide variation in knowledge among GPs has been reported. There has also been a 11% increase in outpatient appointments over the last 5 years. To address this, a collaborative initiative between primary and secondary care clinicians from across Scotland and The Modern Outpatient Programme was formed. This collaboration developed an innovative mobile app designed help support GPs with the appropriate referral, treatment and management of frequently seen dermatology conditions.

Methods

During 2016, the dermatology collaboration updated and expanded previously published clinical pathways for common dermatological conditions. These were formally endorsed by the Scottish Dermatological Society which ensured widespread support from clinicians and other stakeholders. Tactuum, a digital health service company was commissioned to develop a mobile app and website based on the pathways. The app and website provide GPs with quick and easy access to clinical information about the treatment, management and referral of common dermatological conditions. It also includes example photos, "red flag" symptoms, and therapeutic tips. The draft app and website were piloted in two GP surgeries before a national launch in November 2016. This was followed by 3 regional awareness events and a large email advertising campaign.

Outcome

Google analytics showed that the app was used by over 1,300 people to view over 21,000 pages in the first 6 months. Figures for the first quarter of 2018 indicate that about 400 people are using the app and 700 people are visiting the website every month. Approximately 75% of users are return users, suggesting people found the app useful and used it again. 170 GPs from across Scotland responded to an online questionnaire that was sent out. The responses indicated that a quarter of GPs had used the pathways in practice and that over 90% felt that pathways could be a useful patient management resource. Last year (2016/17) the number of new dermatology referrals to secondary care decreased by 2.5%. This was the first reduction in 5 years, reversing a pattern of steady increases. However, it is not possible to confirm if the mobile app directly contributed to this.

Conclusion

Mobile apps can provide an effective way of engaging with clinicians and providing quick and easy access to clinical information. However, there is a need to ensure strong clinical engagement, both when developing the mobile app and when promoting the finished product. The app has provided GPs with useful information in an easy to access format. It has the potential to standardise care pathways, reduce inappropriate variation and enable patients to be better managed in primary care when appropriate, whilst still ensuring they are referred to secondary care when necessary.

What matters to you?’ to Always Events®: coproduction as the way we work.

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Background

NHS England leads the National Health Service (NHS) in England, including setting the priorities and direction of the NHS and encouraging and informing the national debate to improve health and care. The Patient Experience Team in NHS England recognised a gap in widely applied improvement methodologies using coproduction to improve experience of care and a gap in national policy that would specifically encourage and support coproduction in quality improvement.

Always Events® is an improvement methodology to co-produce improved experience of care between front-line care staff and patients/service users that starts with what matters to those patients/service users. The approach was developed in the U.S.A. by Picker and is now led by IHI.

Methods

IHI, Picker Europe, NHS England and NHS Improvement have been collaborating since 2015 in a national programme to test and then scale-up Always Events across the NHS in England. Organisations are required to have Executive Leader ownership and are supported in cohorts to co-design, test, reliably implement and spread Always Events.

In 2016 NHS England worked with a group of patient leaders and the Coalition of Collaborative Care to develop and publish a Co-production Model for the NHS. The model is built on a view of co-production as: Building mutual and reciprocal relationships in which all parties are recognised as having equal expertise; Founded on genuine partnerships ‘from the very first conversation where we establish what question we are exploring together’; Different from previous ‘episodic’ patient, carer & public involvement or patient and family advisory panels. The published model has a set of five value and behaviours and seven practical steps for co-production.

Outcome

Two initial testing phases involved 10 health provider organisations. The programme was scaled-up to 22 organisations at the end of 2016, 74 at the end of 2017 and 100 by April 2018 which represents 42% of NHS providers. A cohort has also been set-up of those organisations that have successfully implemented an Always Event and are going on to spread the approach within their organisation.

The Government published NHS Mandate now includes the following Overall (Patient Experience) 2020 goal: ‘Ensure that patients, their families and carers are involved, through co- production, in defining what matters most in the quality of experience of services and assessing and improving the quality of NHS services’ and for 2017-18 a deliverable: ‘Development and adoption of externally validated co-production improvement methodologies, including the rollout of always events in 100 providers by April 2018’ which has been met.

Conclusion

The combination of a national model to encourage co-production in quality improvement and a national programme to roll-out a proven improvement methodology across the NHS has resulted a significant increase in health providers using co-production with people who use health services to improve the quality of experience of care.

The primary challenge has been the functional separation within many health providers between, varyingly, quality improvement, patient experience and person-centred care efforts. NHS England, NHS Improvement and IHI are currently exploring what a joint approach to address this challenge might look like.

The main message from our work is that, given the right culture and leadership, health providers can overcome assumed barriers to co-producing quality improvement with both patients/service users/carers and point of care staff to consistently deliver experiences of care that explicitly address what matters most to those patients/service users/carers.

Patient involvement in value-based health care

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Background

The VUmc MS Center Amsterdam is a multidisciplinary center in which more than 60 researchers of different disciplines cooperate in answering questions regarding the cause and cure of MS. We provide MS care for 1000-1200 patients, 400 new patients a year (>90% second opinions). The research of the MS Center Amsterdam is aimed at early detection and targeted treatment of MS. VU University Medical Center (VUmc) Amsterdam is the university hospital affiliated with the VU University Amsterdam

Methods

How can we deliver the best outcome for our patients?

Outcomes that are important to the patient.

During a period of three months a multidisciplinary team redesigned the patient journey of multiple sclerosis (MS) patients in our hospital in order to increase the value of care for this group of patients. The multidisciplinary team included (para)medics, support staff and three patient advocates.

From the start until the end of this project the patient advocates participated in all discussions and the following 5 sessions (February-may 2017):

- Session 1: value-based health care principles and analyse the MS pathways
- Session 2: results of patient-surveys and define value for patients, improve pathway
- Session 3: selection of patient reported outcomes (PROMS), selection measurement of outcome,
- Session 4: patient flow, pilot phase
- Session 5: planning changes and evaluation, set further improvement goal.

Outcome

We constructed a set of (patient reported) outcome measures that matter to the patients. These outcome measures were based on international validated questionnaires. We improved our workflow; more efficient with better use of professional capacity. We invested in changing the culture from a professional oriented to a patient-partnership, not only as a member of the care team but as co-builders in our project team.

The patient advocates noted the following of their partnership in a multidisciplinary team:

- They had enough space for input
- Open attitude, listened carefully
- Could not provide input everywhere (care path, measuring instrument)?
- It is important to be involved
- Good direction of the current plans
- "Working together for noticeably better care"

After the sessions we started with a multidisciplinary MS-management team to sustain improvement activities.

Conclusion

Direct patient involvement is for great value in transforming your organization towards a value driven organization. An important lesson is that consistent engagement of patient in the multidisciplinary team results into a culture of really putting effort in trying to meet the needs of the patients and their relatives.

Listening to "the voice inside me" ; Improving maternity outcomes'

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Background

In the UK, each year between 500 to 800 babies die or are left with severe brain injury – not because they are born too soon, too small, or have a congenital abnormality, but because something goes wrong during labour. Cases of Hypoxic ischemic Brain Injury (HIE) result in not only physical but emotional agony for both parents and staff involved. It costs the NHS UK £1.3 bn every year. Cases such as these result in emotional agony to both parents and staff involved, as well as a £1.3bn cost to the NHS as a whole. A number of national and local Hypoxic Ischaemic Brain Injury (HIE) cases prompted a deep dive review of the maternity safety management processes at our Trust. We are one of the largest tertiary maternity service providers in the UK with over 11,000 deliveries a year. This revealed gaps in the understanding of cultural and behavioural issues, notably around time, escalation, decision making, and communication prompting the development of our dynamic resource package.

Methods

The project was initiated through the Sign up to Safety campaign UK. Analysing multiple patient stories/serious incidents identified key messages which formed the thread around which a simple, yet powerful story evolved. In order to accomplish this we tapped into local, national, and regional expertise including members of the Maternity Services Team, human factor experts, patients and quality and safety leads. The learning resources consists of a main video and a series of learning videos together with facilitator notes and activities that can help in reducing harm by encouraging change in cultures and behaviours through the embodiment of TED:-

- (T) Timely recognition of clinical risk;
- (E) Escalation of concerns; and appropriate communication
- (D) Decision making and appropriate action.

Outcome

Feedback has been positive; the package has been viewed over 22167 times with 93% of users indicating that they found the video useful. It has been described as “very powerful” “giving a clear and important message in a professional and not sensational way”. Popular mini-videos include Clarity of Decision Making, Communication and Escalation, SBAR and Confirmation Bias. This dynamic package is continually updated to include recent developments and feedback from evaluations. Pleasingly, the programme is to be included in the ATAIN programme(NHS England’s E-Learning for Health). Nationally in the UK “The Every Baby Counts” (RCOG/RCM) programme has embraced this as a tool for national dissemination. Internationally the project has been spread to Singapore and New Zealand and is being incorporated in their mandatory teaching programs.

Conclusion

This learning resource is a useful tool to begin to have those difficult challenging conversations that underpin some of the human factors in harm.

We would like to encourage maternity units around the world to become a TED unit.

- ② Setting their improvement ambition (i.e. no avoidable HIE cases in 2018/19)
- ② Utilising this resource in a structured way to support their aspirations for improvement
- ② Using safety improvement methodology to track and monitor improvements ('plot the dots')
- ② Promoting TED through promotional materials (bears, stickers on handover boards).

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Together we can make a difference

Antibiotics Stewardship Program in primary care settings

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Background

Antimicrobial stewardship program in AHS clinics seeks to optimize antimicrobial prescribing in order to improve individual patient care as well as reduce hospital costs and slow the spread of antimicrobial resistance. AS in UAE, Resistance to antibiotics has reached a very concerning high level, compared to other countries according to the Abu Dhabi Antibiotic Resistance Surveillance Report 2011 (AD ARS 2011) by the Health Authority – Abu Dhabi (HAAD).

Antimicrobial stewardship programs are more important than ever in ensuring the continued efficacy of available antimicrobials. And the main goal of ASP is to 1-Optimize clinical outcomes while minimizing unintended consequences of antibiotic use. 2-Reduce healthcare cost without adversely affecting the quality of care for ID. 3-Reduce the denials from the insurance companies for the unnecessary prescribed AB e.g.: AB for allergic rhinitis, Common Cold, Acute bronchitis.4-Improve Antibiotic prescribing in AHS Healthcare Centers.

Methods

The initial data collection from Retail pharmacy report for the whole 2015 year, recognize the antibiotic prescribing patterns in the clinic, and so many unnecessary prescribed AB were found for viral infection e.g common cold and allergic rhinitis and acute bronchitis. According to the collected data 599 patients were given unnecessary antibiotic with a total cost 70,783 AED.

With our limited resources the best strategy to implement ASP is implement a pharmacist - driven prospective audit and feedback model. It's a real-time review of antibiotic use after antimicrobial therapy has been initiated and recommendations are made with regard to their appropriateness in terms of several defined measurements such as compliance with the local and IDSA guidelines.

Outcome

Results

1-Total cost saved 163,330AED

2-63% (102,487) Reduction in total AB in 2016, 64% (105,190) Reduction in total AB in 2017

Conclusion

In conclusion, data showed that the implementation of Antimicrobial stewardship in primary care setting is a very cost-effective tool with great direct impact on the Antibiotic consumptions, quality of antibiotic prescribing, and provides high patient safety measure to overcome the antibiotic overuse.

Leadership in trauma teams: An interview study

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Background

Leaders in crisis response teams are essential to the effective coordination and direction of the team. However, the training of trauma team leaders has mostly focused on the medical skills and knowledge for treating trauma patients, rather than skills for leading the team. As a result, they are often not aware of the team members' expectations of them and how best to lead the team to optimize team performance. Given the dynamic structure of trauma teams, their interprofessional composition, and the time-sensitive nature of trauma episodes, different leadership behaviours are likely necessary to adapt to the different situations. In the current study, we aim to examine the key leadership styles or behaviours that are exhibited by trauma team leaders.

Methods

We conducted a qualitative research study based on 37 in-depth interviews with physicians and nurses involved in trauma team activations in a Level 1 trauma centre. Key interview questions include their expectations of the trauma team leader and the characteristics that a good leader should possess. Using a grounded theory approach, the content of the interviews was coded and analysed in order to derive broad leadership themes.

Outcome

Analysis revealed that leadership behaviours could be classified along three dimensions: (1) Team Orientation – the extent to which team members are involved in the decision making process; (2) Engagement – the type of activity that leaders engage in; and (3) Activeness – the extent to which leaders are proactive in regulating team behaviours.

We found that leaders adopt different leadership styles based on their individual experiences and expectations. For example, while some prefer taking full responsibility for decision making, others tend to seek consensus from the team before making a decision (team orientation). Although team leaders are expected to oversee team activities, many often personally conduct patient assessments and treatment procedures (engagement). Some team leaders actively provide instructions and seek information from team members, while others might wait to receive information and only intervene when they observe incorrect procedures (activeness).

Conclusion

The attributes and behaviours of a leader in teamwork settings are crucial to the effective functioning of the team, and more attention needs to be paid to developing these capabilities. It will be useful for future research to examine the prevalence of the various leadership styles identified in the current research by conducting observations of the trauma team activations, and linking such leadership styles to trauma team and patient outcomes. We believe that stronger leadership within patient management teams will benefit the entire system as it more effectively harnesses and develops the skills of each individual involved in healthcare processes, which contributes to improving the quality of care that patients receive.

MAKING IT STICK: Use of consent stickers in a district general hospital

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Background

This project has been completed in an Obstetric unit in Daisyhill hospital, a small district general hospital, in Northern Ireland. The team included midwives, junior doctors, senior doctors and clerical staff. The patient group involved pregnant patients in both an elective and emergent setting.

Collection of data from previous audit in 2013 demonstrated that consent for women in both emergency and elective procedures varied widely and that the consent process didn't meet the standards set by the Royal College of Obstetricians and Gynaecologist (RCOG) – Consent Advice No 7.

The results of the audit were then presented at the department's local audit meeting and demonstrated that on average only 56% of elective and 52% of emergency procedure consent forms met the standard set by RCOG. Action was taken from this meeting to introduce "consent stickers".

Methods

"Consent stickers" were produced using the RCOG–Consent Advice No. 7 document in 2013. The stickers contain the frequent and serious complications, possible extra procedures and future pregnancy risks. These stickers could be placed on any standard consent form. Medical, midwifery, nursing and clerical staff were engaged and educated about the stickers to ensure that all team members were aware of when to use them.

Staff were involved in:

- -Weekly multidisciplinary postgraduate teaching
- -Monthly departmental audit meetings
- -Daily consent sticker discussion during handover
- -Quarterly staff newsletter
- -Poster production

RCOG guidelines were updated in 2016 and subsequently the consent sticker were updated to reflect the changes.

Opportunity for feedback from staff and patients was through the Maternity Services Liaison Committee-whose members included the Chair, ward Sisters, layperson members, Assistant director of acute services and midwives. Data was then reaudited in 2016.

Outcome

Elective and emergency consent forms were selected at random and held to RCOG standard. These results were audited until data saturation. Results showed there was a 95% uptake of use of stickers and 86% of elective and 81% of emergency procedure consent adherence to RCOG standards for consent.

The success and ease of the stickers ensured that they have continued to be used daily. It has meant that the stickers have also moved to be used in other common obstetric and gynaecological procedures throughout the department and the trust.

This process allowed for an open and transparent consent process to the patient and ensured that doctors could provide fully informed consent. Interestingly, the stickers were also helpful for junior medical staff, acting as an aide-memoire in the consent process.

The use of stickers has helped to cut down on the clerical tasks so that more time can be spent with the patient explaining the procedure and exploring patients concerns, ideas and expectations.

Conclusion

A small change can go a long way to make a huge difference. Small, easy to use and specific changes were key to ensuring the success of the consent sticker. Involvement of all staff members is important to ensure everyone works as a team and adopts a lasting operational change.

In the busy environment of the NHS with increasing amounts of paperwork it has helped to streamline the consent process and provide more time for the clinician-patient relationship to be spent on empathy, reassurance and education. The introduction of the “consent sticker” has allowed us to fully inform our patients.

However some problems have occurred. Stickers can be quite difficult to size and ensuring that all information is included, that it is easily legible and it is easy to place on the consent form has been a challenge. Discussion regarding a dedicated consent form for caesarean section has been suggested as an improvement. This would ensure all information is available, legible and neatly laid out.

Untapped Potential – Partnership with Clients & Families in Patient Safety

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Background

As the Patient and Family Centred Care movement becomes more embedded within the healthcare system it is critical that organizations recognize the untapped potential in training patients and families in patient safety at a system's level to effectively partner with clinicians to create change.

The hospital established a formalized committee, the Family Leader Accreditation Group (FLAG) where staff and family leaders (FL) partnered equally to meet, update and implement quality and safety initiatives as part of the accreditation preparedness process. The Quality, Safety and Performance team was driven to partner more deeply with clients and families to advance quality and safety, exceed compliance with Accreditation Canada's client and family centred care standards, build capacity within FL to drive change in quality and safety within and outside of Holland Bloorview Kids Rehabilitation Hospital and create innovative partnerships that were meaningful and had significant impact on care.

Methods

The 18 month journey required structure, process and people to ensure success. The structure was created to ensure accountability, conversation and drive the work of accreditation and augment the conversations of quality and safety. The FLAG structure reported horizontally and vertically across the organization. The processes implemented ensure ongoing communication, orientation, multiple touch points and a conflict resolution process. The people to support the entity included our Client and Family Integrated Care team, QSP and the Chair of FLAG. Evaluations were conducted monthly. Development of the education curriculum with PSEP was in full partnership with a Family Leader, CPSI and HBKRRH QSP team. The prototype for a new module was created entitled "Clinicians as Partners: Partnering in the Conversation".

Outcome

Quantitative and qualitative methods were used to evaluate both individual sessions, facilitator and the overall conference. The average overall evaluation rating for the session content and facilitators was 1.61 based on a six point Likert scale (1= strongly agree and 6=strongly disagree). Compared to national values, participants scored higher on the question of impact on your attitude of teaching patient safety by 13% and a 2% increase in having obtained new information as a result of the course.

Overall conference evaluation results include a 100% yes response to the following questions:

"Did this conference impact your attitude toward teaching patient safety?" and

"I have obtained new information (knowledge) as a result of attending this course?"

Qualitatively, participants also responded with:

- "I learned how to better partner with clinicians"
- "I enjoyed witnessing and participating in various teaching skills of the content"

Conclusion

Shared accountability, formalized training and equal decision making improves the way we deliver quality care for patients and families. Creating the structure, processes and identifying training needs not only ensures organizations exceed the required standards of accreditation but transforms how partnerships are modelled and leads to broader health system wide improvements for patients and families.

Our next commitments are to build upon our structure, enhance FL skills and create a vision that will impact not only HBKRH but externally in the system. We will partner with external agencies to embed our successes within strategic plans and build capacity to evolve client and family quality and safety.

Experiences with patient participation in the NFU-master Quality and Safety in Patientcare

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Background

Involving patients in the education of health professionals is relatively new and scientific literature on experiences and impact is scarce or lacking, especially with regard to educational programs on quality and safety of healthcare. The NFU-master Quality and Safety in Patientcare is a 2-years post-initial academic program for care professionals (e.g. medical specialists, pharmacists, nurse specialists, physician assistants) with a special interest in improving the quality and safety of care. The master started in September 2014 and is a cooperation between all 8 university hospitals in the Netherlands.

Active participation of patients is considered very important and several initiatives have been taken to involve patients in the master. In order to further improve patient participation, we aimed to evaluate the experiences with patient participation so far, from the perspectives of patients themselves, students and teaching staff.

Methods

A digital questionnaire was sent to the patient representatives who are structurally involved in the master training, the students (two cohorts) and teaching staff ((co-)coordinators of the training modules). The questionnaire included questions on (1) the importance of and (2) experiences with patient participation, in the master training in general, as well as in the process of preparation of the training modules, the face-to-face course days, the quality improvement project (in their own working environment, e.g. a hospital department), the exams, and in the evaluation and (re)design process. Also, (3) the preferred extent of influence of patients, according to a 'participation ladder' was asked. Finally, (4) respondents were invited to provide suggestions for improvement of patient participation.

Outcome

Results will be presented on the poster.

Conclusion

We hope that the results will illustrate the importance of patient participation in an educational setting on quality and safety in healthcare and concrete suggestions for further improvement will be provided.

Introduction of a novel SHO-led prolonged jaundice clinic in order to reduce the wait time for hot clinic appointments within the paediatric department.

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Background

The Paediatric Department in Northampton General Hospital runs a “Rapid Access” Clinic every weekday morning, which is staffed by a Paediatric Consultant, and supported by a Paediatric Nurse. The service is available to GPs and Community Healthcare Providers to refer patients they feel meet the referral criteria. It is intended to prevent admission of patients who although unwell, could be managed in an outpatient setting. Patients are discharged from the clinic with a management plan drawn up by a Paediatric Consultant. With increasing demand the average wait time for this clinic was 4.2 days, where typically it should be no more than 2 days.

Methods

A large proportion of the patients seen in the Rapid Access clinic were diagnosed with prolonged jaundice, which can be managed by a junior doctor. A new clinic was developed specifically for babies with prolonged jaundice, led by a junior doctor and supported by a Consultant. A new prolonged jaundice screen pro forma was designed, to be used by the junior doctor leading the new clinic. The pro forma helps to provide a consistent structure to the appointments and ensure that all appropriate information is documented. Any tests and investigations requested are followed up by the “Consultant of the Week” on the Paediatric Assessment Unit. Training was delivered to all junior doctors in the department on; how to deliver the clinic, the expectations from the department and the support they would receive from the Consultant. A Patient information leaflet on prolonged jaundice, for parents attending the new clinic, was also produced.

Outcome

The outcome measure for this project is the wait time for the paediatric rapid access clinic. Since the introduction of the new jaundice clinic we have seen a reduction in the wait time, from an average of 4.2 days to an average of 2.6 days. The wait time for the new clinic has also been monitored and is an average of 2.8 days. This is moving toward the target wait time of 2 days in both clinics. A questionnaire was given to parents attending the new clinic and very positive feedback was received. Parents said that they would recommend the Trust, had confidence and trust in the doctor examining and treating their child and felt they got answers that they could understand to any important questions they had to ask.

Conclusion

This quality improvement project aimed to reduce the waiting time for rapid access clinic appointments in the paediatric department from 4.2 days to 2 days. Through the introduction of a new clinic for babies with prolonged jaundice, the wait time for the rapid access clinic has reduced to 2.6 days and we hope to see this further reduce in the coming months. The new clinic has also helped to develop junior doctors in the department, as well as having an indirect financial saving associated with a junior doctor running the clinic in place of a consultant. The production of a patient leaflet on prolonged jaundice in babies, given to parents attending the new clinic, means that they have better information on the condition. Parent feedback on the new clinic has been very positive and this project is well on the way to achieving the overall aim.

The Structure of Thames Valley Police Custody Healthcare

Dr Ana-Maria Chiorean

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Background

This project was an analysis of the structure of Thames Valley Police Custody Healthcare after they have started to be delivered by Mountain Healthcare. The scope was to analyse if the new structure was better than the previous one.

Methods

An analysis was done of the numbers and types of healthcare professionals involved in the delivery of healthcare as well as the coverage of the Thames Valley Police custodies. It was also analysed the number of people that have been assessed by the healthcare professionals in 2016.

Outcome

There were more healthcare professionals involved in the delivery of healthcare and a better coverage of the custodies. It was noted a remarkable number of assessments done in Thames Valley Police custodies in 2016. There were care plans in place for the complex cases where the patient is involved and the staff of Mountain Healthcare liaises with GPs and other healthcare professionals and services in order to deliver an adequate level of care and ensure that continuity of care is maintained after the person leaves custody. Also it was noted that there was in house training for the healthcare professionals.

Conclusion

In order to be able to perform so many assessments a good organisation of the healthcare services and competent staff is required. Also it was noted the benefit of continuity of care which can be delivered by having healthcare professionals embedded in most of the custodies and having a good hand over process in place as well as care plans which ensure the care does not end once the person left custody. Staff and management from Mountain Healthcare as well as Thames Valley Police staff collaborate in order to ensure there is a safe environment for patients and staff. Therefore better and safer outcomes.

Fall Risk Assessment Scores for Medical Tourist Patients at an International Hospital in Thailand: A Case-Control Study

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Background

Many standard fall risk assessment scores have been widely used; however, they focused only on clinical parameters yet not tested in settings with diverse patient background and possibly different fall risk profiles. The key questions for the Fall Risk Committee and Bumrungrad Research Center, Bumrungrad International Hospital (BIH)—a hospital for medical tourism certified by Joint Commission International and Global Health Accreditation are: What are the clinical and non-clinical determinants of patient fall in a medical tourist institution? Which fall risk assessment score is the most appropriate and which additional determinants should be added in a setting with patients from diverse background?

Methods

In this case-control study medical records of 200 adult inpatients admitted during 2014-2016 who fell (case) and the other randomly selected 200 inpatients who did not fall but admitted on the same day (control) were reviewed. All data required for calculating the Hendrich II Fall Risk Model (H, 7 items), STRATIFY Risk Assessment Tool (S, 5 items), Morse Fall Scale (M, 6 items), and Johns Hopkins Hospital Fall Risk Assessment Tool (J, 7 items) were extracted. Ten additional non-clinical determinants proposed by the BIH Fall Risk Committee were also analyzed (B1-B8). The diagnostic ability of the standard scores were assessed using Receiver Operating Characteristic (ROC) analysis. The score with largest area under the ROC curve was explored whether adding possible combinations of the Bs would increase the diagnostic ability. This study was approved by the Institutional Review Board, Bumrungrad International Hospital (BI-IRB No.232-02-17 Nh Exp).

Outcome

The overall mean age was 54.22 years, female 45.25%, Asian 47.00%. The cases were older (58.88 vs 49.57; $p<0.001$) and more male (61.64% vs 35.91%; $p<0.001$) than the control. More Middle Eastern patients (67.48%) fell than other ethnic origins (Caucasian 54.43%, Asian 36.17%) ($p<0.001$). Some determinants of the standard scores were not associated with fall event whereas 5 out of 8 B determinants were significantly associated with fall event: admission on the arrival day vs within 6 days after arrival (B1; $p<0.001$), anticipated surgery with sedation (B2; $p<0.001$), first admission (B3; $p<0.001$), personal caregiver dependency (B4; $p=0.012$), and interpreter need (B5; $p<0.001$). The areas under the ROC of the scores were: H 84.97%, M 77.91%, J 57.29%, and S 49.26%. The areas under the ROC of the B sub-scores were: B1 75.78%, B2 33.25%, B3 34.75%, B4 47.00% and B5 59.50%. Adding B1 and B5 to H increased the area under the ROC curve from 84.97% to 91.47% and 85.29%, respectively.

Conclusion

Existing fall risk assessment scores have limited use in a facility with diverse patient background. Hendrich II Fall Risk Model is a preferred clinical fall risk score. Selected non-clinical determinants help to increase the predictive ability of the fall risk score.

Improving Point of Care Testing Process in 57357 Children Cancer Hospital Egypt

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Background

This improvement project were implemented in 57357 Children Cancer Hospital Egypt which is a 320 bed non-profit hospital providing the most advanced treatment to cancer diseased children. The project tackles the analysis of point of care process in the hospital and the means to solve the issues identified. A multidisciplinary team was gathered to lead this improvement initiative .

The methodology used: FOCUS PDCA

Analysis of the problem:

Types of POCT used in the hospital:

- Blood sugar measuring devices (Glucometer)
- PH urine test strips

Many reports were received regarding wrong results of the point of care tests used in the hospital that led to wrong clinical decisions and placed the patient at high risk, after analyses numerous issues were identified regarding: the quality control process of the POCT:

- There were to means for PH urine strips quality control
- Compliance with the existing quality control requirements for Glucometer was an average of 18%

Methods

- The team discussed and approved on a new process for POCT quality control according to the internationally established guidelines and manufacturing company recommendation to be our standard for action

. The QC of Glucometers was done on a daily bases by technicians

- The QC of PH urine test strips was done on a weekly bases by nurses
- All QC results was documented in the newly developed format
- The Lab must supervise all POCT quality control activities at least once per month and document the results in the relevant format
- The quality department and nursing supervisors will also be responsible for the inspection
- The action taken for invalid results and the feedback is documented in the same QC format for all parties to follow
- Standardization by an official POCT program that was published on the hospital website for all healthcare employees
- Training of all involved parties on the new process
- Cultural change to understand the importance of POCT control process

Outcome

- We received an incident reports regarding an out of control PH urine strips compared to absence of any means to discover it before.
- No incident was received regarding wrong POCT result
- There is a better overall understanding of the criticality and the importance of POCT quality control requirements
- Some problems identified during implementation regarding lack of knowledge of newly hired staff with the process and that was resolved by making the POCT training process part of the general orientation of the newly hired nursing and technician staff

. A total average compliance of 99% with the new quality control process was achieved - exceeding the target (98%)

Conclusion

- Even in the most advanced hospitals there might be an overlooked process that may jeopardize patient safety and POCT is a very good example of such processes
- Be focused in your improvement initiatives
- Have an ongoing educational framework
- Always listen and don't disregard any feedback given
- Continuous monitoring and inspection is very important
- The results of your measurements must be communicated with the relevant staff members

Communication is key

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Background

Every day in our work environment we engage in communication. Sometimes this communication is minor other times it is paramount to the care of our patients. Within the medical profession lies a variety of ability to communicate effectively. There have been several tools invented to try and improve communication between staff, such as SBAR and MIST, however miscommunication remains that the forefront of several root cause analysis and failings in medical care. We aimed to come up with a telephone proforma to try empower both the caller and the recipient.

Methods

Several doctors of mixed grades and specialties met and discussed the barriers to communication. Based on their experience and the barriers highlighted we designed a telephone proforma. The aim of the proforma was to act as a prompt and to include all the information that may be necessary to make a telephone referral regardless of your grade or confidence and to allow the recipient to be able to gather all the details they required to make a sensible decision.

Outcome

We created an easy to remember proforma using the basic information that is required to allow doctors of any grade to have the tools necessary to make an effective telephone for advice or help.

Conclusion

Our acronym PHONE should allow both the caller and the recipient to challenge each other until they have both received all the information needed to reach a decision. It also allows for clear, unbiased documentation in the patient's notes about any telephone advice. This project is only in its early stages and we need to assess its effectiveness in our local hospital.

Case analysis of serious untoward incidents regarding telephone communication

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Background

Telephone communication between medical professionals is used every day in our healthcare system. The aim is to provide accurate information in order to make appropriate, safe medical decisions. Errors in communication can lead to poor decisions about patient's medical management and may lead to patient harm.

Any serious incident involving patient safety that could have been prevented is reported as a Serious Untoward Incident (SUI). SUI's were analysed over a period of one year (March 2016-17), looking specifically for errors in communication.

Methods

All SUI's over a period of 1 year were analysed (March 2016 – March 2017) were analysed and we looked at the SUI's concerning errors in communication (n=6), specifically in telephone communication between medical professionals (n=3). The root cause of the incident was also examined to understand how it could have been prevented.

Outcome

Over a period of a year, we found 6 SUI's that were as a direct result of errors in communication, including inaccurate information being conveyed, poor communication in regards to the management plan or a complete lack of communication.

50% of these SUI's were specifically failures in telephone communication. On root cause analysis of these cases, there were differences in the interpretation of advice given over the telephone between medical professionals in different hospitals, failure to convey accurate laboratory results and 'poor quality of a telephone discussion' that led to a patient being discharged inappropriately. These SUI's and errors in telephone communications led to 2 patients deaths (one death was unlikely be prevented but led to a suboptimal management of his last 48 hours) and a long term neurological deficit in a newborn baby.

Conclusion

A standardised approach to telephone communication between healthcare professionals would be beneficial in preventing these incidents. This would ensure that all clinical details are accurate as well as setting out a firm 'contract' between the caller and the recipient to ensure the plan is agreed upon from both parties before the call is ended.

We are hoping to implement a proforma which would standardise the approach to telephone communication on a local trust scale and then measure the percentage of SUI's that are related to telephone communication to measure any improvements.

Development of a pragmatic method for risk analysis of new medical devices

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Background

Dutch national regulation dictates that hospitals do a prospective risk analysis (PRA) before a new medical device is introduced. PRAs are difficult to organize for care departments in hospitals. They are usually time-consuming and require specially trained staff. A more pragmatic method was needed to meet the regulatory demands.

To support our medical staff, the department Medical Engineering at the Academic Medical Center (AMC) in Amsterdam, developed the service “PRA guidance”. The HFMEA procedure was redesigned, making it less time-consuming and a better fit to our organization.

Methods

We used a bottom-up design approach to adapt the procedure to our needs. Through interviews with employees from care and medical engineering departments we identified several factors that demotivated them to organize risk analyses:

- Lack of trained process leaders with proper experience
- The time-consuming nature of proper HFMEAs
- Limited availability of carers to participate in a PRA meeting

We made a few adaptations to the HFMEA procedure, making it more efficient and fit to our organization. The following decisions were made:

1. We developed a concise PRA method, which needs only one PRA session of 1 to 1.5 hours. We assessed only the most relevant HFMEA steps and standardized the process steps.
2. We used a PRA screening tool to advise on the need of a (concise) PRA.
3. The report is automatically derived through a VBA program in Excel.
4. The results are presented as a list of actions (control measures) to the participants.

Outcome

More PRAs were done for new medical devices in 2017 than in 2016 (resp. 13 vs. 5). Through interviews we found that the threshold for conducting PRAs was indeed lower for the care departments. Further development of the method should focus on effective implementation of control measures.

With our new method, we lowered the threshold for care departments in the AMC to prepare with a PRA for the introduction of new medical devices. With a PRA, proper preparation for launching new medical devices is realized. Foreseeable use problems are identified and control measures are added to training and use protocols. By lowering the threshold for PRAs, we thus create better conditions for controlling patient safety.

Conclusion

We learned that pragmatism is needed to successfully implement a PRA procedure. Carers have limited time available outside of patient care. Supporting staff is also overloaded with tasks. By acknowledging this, we were able to adapt our procedure to the needs of our organization. We invite you to visit our poster, and learn that when PRA procedures are better adapted to the organizational needs, we can more systematically improve patient safety. Our approach may also work for other hospitals and other hospital procedures. Our recommendations for a more pragmatic approach of PRAs in your hospital are:

1. To centrally appoint process leaders for PRA's for all departments
2. Use standardized process steps
3. Find or develop software for PRA guidance and reporting
4. • Determine criteria when to do a concise PRA or a normal HFMEA

Improving the effectiveness of the Lung MDT

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Background

The multidisciplinary team (MDT) meeting is a foundation of cancer care in the NHS. It enables specialist doctors and nurses to discuss patient diagnoses based on a variety of tests and investigations and recommend the best form of treatment based on local and national guidelines and on individual circumstances. Core members of the lung MDT in Northampton General Hospital (NGH) are respiratory and palliative care physicians, oncologists, pathologists, radiologists, surgeons, specialist nurses and administrative staff. An average of 40 patients are discussed at the Lung MDT every week in NGH, which lasts up to 2 hours 30 minutes. In January 2017 Cancer Research UK set out recommendations for streamlining and improving MDT meetings and working. At that time a minority of patients discussed at MDT had the appropriate information available for discussion, causing delays to the meeting and patient care plans were not discussed in sufficient depth, particularly for more complex cases.

Methods

The aim of this project is to improve the effectiveness of the lung MDT at NGH based on the key criteria every MDT patient should have. The location of the meeting was moved to a room which had access to live-typing projecting, radiology and histology projection and video-conferencing, however, as the room was smaller, the meeting was moved back to the original room. The MDT agenda was changed to include more information including performance status, spirometry, smoking status and staging. After trialling for 4 weeks, this change has been adopted. A change has also been made to the referral process for 2 week wait patients, so that they are no longer discussed at MDT prior to being seen in clinic. To further streamline the referral process, electronic referral to MDT has been introduced in March 2018, which will ensure all mandatory fields are appropriately completed by the referring clinician.

Outcome

The outcome measure for this project is Lung MDT effectiveness. This measure is based on the information available for each patient (performance status, spirometry, smoking status and staging). The percentage of patients with these key elements available has been monitored each week and an improvement has been seen in the information collected and recorded. Discussions within the MDT can now centre on reviewing investigations, rather than searching through case notes for missing information. This results in more effective discussions and decision making.

Conclusion

This project aimed to improve the effectiveness of the Lung MDT at NGH by improving the patient information available for the meeting. Changing the agenda to ensure this information is collected prior to the meeting has led to increased availability of information in the four key areas (spirometry, performance status, smoking status and staging). It is envisaged that this will further improve with the introduction of electronic referral and further planned interventions. These include; written guidance on referring to MDT, having patients presented by the clinician that last saw them and a separate lung nodule meeting as these patients do not need to be discussed with all of the attendees of the MDT.

The changes implemented have led to more effective discussions and decision making in the Lung MDT. The ongoing project and planned interventions will further streamline the lung cancer pathway and improve the efficiency and timeliness of diagnosing and treating lung cancer patients.

“Pause for Safety”. Improving patient safety through ‘Safety Pauses’: multidisciplinary in-situ immediate debriefs of real events in Neonatal practice.

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Background

Neonatal Intensive Care Units and labour wards are high risk environments. This is due to the combination of vulnerable patients, attending staff of varying experience, and variable familiarity with the working environment or equipment. The Trevor Mann Baby Unit is a tertiary surgical neonatal intensive care (NICU) based in Brighton, England. We observed that many environmental hazards our patients were exposed to were recurrent and there was no recognised mechanism for pooling information about potential hazards or resolving identified issues before they caused harm.

Each individual within a team learns something different during an event (e.g. tracheal intubation, neonatal resuscitation, high risk delivery). This may relate to identifying a latent threat or an equipment problem, or to team behaviour. Through guided and recorded multidisciplinary reflection the wider multidisciplinary team (MDT) can share this valuable learning.

Methods

We developed “Safety Pauses” (SP): rapid multidisciplinary team debriefs after any emergency or procedure. The SPs focus on safety, team behaviours and identifying latent threats within the working environment, equipment, or team. Latent threats are threats within the system, previously unrecognised, which have the potential to cause patient harm.

SPs are carried out by the team immediately after an event, in an inclusive and supportive manner. These last 5 minutes and record answers to 3 questions:

- If that situation were to happen again right now, what would you do differently?
- If that situation were to happen again right now, what would you do the same?
- Were there any problems with the equipment/environment/behaviour that could have caused patient harm but did not on this occasion?

We used SP data to guide changes in the care environment, equipment, and processes used to deliver care, and to lead to improvements in team working and enhancing the safety culture among the MDT.

Outcome

In the first 6 months of the programme we have undertaken 191 SPs which have identified 237 latent threats. These threats have been resolved by our Human Factors team with MDT support.

We have seen a consistent 30% reduction in critical incidents on our independent Datix reporting system compared to the 2 previous equivalent epochs respectively. We have also seen a reduction in “patient harm”, “near misses” and “impact not prevented” incidents.

Our preliminary survey data shows an improvement in the perceptions the MDT members have regarding the safety, efficiency, and effectiveness of our processes and procedures. In addition, there was an improvement in perceived team working culture among the MDT.

Our data shows that once identified and resolved, these latent threats in our working environment, equipment, and team work, no longer appear on subsequent SP data. This indicates that the latent threats have been prevented from causing future patient harm.

Conclusion

We have found the use of our Safety Pause tool an excellent way of improving the processes and procedures to which our patients are exposed. Our MDT members notice a benefit in the safety, efficiency, and effectiveness of their work, and acknowledge a culture of better team working. Despite some initial scepticism among staff, we feel that now the Safety Pause is more integrated into practice, the safety of our patients will continue to show sustained improvement. There is an increase in workload needed to collate and analyse the SP data, but we feel that this is justified by a reduction in patient harm and safety threats to which our vulnerable patients are exposed.

The SP data has also been fed into our Safety STEPP cards: a system of NICU specific team prompt cards used in preparation for high risk events. It has also made positive changes to our neonatal emergency team composition and resuscitation trolley layout, helping to maximise resuscitation efficacy in the early stages.

Disease Modifying Therapy

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Background

Multiple Sclerosis (MS) causes the immune system to attack the nerves in the brain and spinal cord. It is estimated that there are over 100,000 people with MS in the UK and around 5,000 people are diagnosed each year. Of these, around 80% suffer relapses, where new symptoms appear or symptoms flare up. Disease modifying therapies (DMT) are a group of drugs which can reduce how serious relapses are, the frequency of them and can slow down the effect of MS. DMTs work better if taken as early as possible, however, as MS is a specialised area, healthcare professionals may only have limited knowledge regarding the disorder and treatment.

Northampton General Hospital (NGH) is a busy hospital providing acute services to a population of 380,000. A questionnaire given to doctors and pharmacists showed that only 7% were aware of the criteria for an MS patient to qualify for a DMT, only 7% were confident of the DMTs available and only 23% were confident about how DMTs are monitored.

Methods

The project team took a previous DMT poster and reviewed and updated the information. This included; prescribing criteria, monitoring parameters, groups of patients to be cautious with MDTs, contraindications, and side effects. New DMTs were also added. Once updated and reviewed by two Consultant neurologists and approved, the poster was displayed within the Pharmacy department and on Medical wards.

Two teaching sessions were also organised. A two hour lecture during the weekly core medical teaching programme provided teaching on; symptoms and signs of MS, pharmacy and non –pharmacy management of MS, criteria for MS patient to qualify for DMT, drug monitoring, side effects and cautions. A one hour session for Pharmacists covered; pharmacology management of MS, patient criteria for DMT, drug monitoring, side effects and cautions. The sessions were carried out by the Neurology Consultant, MS specialist nurse and lead pharmacist.

Outcome

The outcome measure for this project is staff confidence in their knowledge of DMTs. A questionnaire was given to doctors and pharmacists prior to any interventions and subsequently after each intervention. Although the results of the questionnaire varied after each intervention the improvement in confidence and knowledge from the baseline questionnaire is evident. Across the three questions only 12% of staff felt confident in their knowledge of DMTs, this has now increased to 74%.

The number of patients that are on DMTs was monitored as a balancing measure during the project. This has shown that as staff knowledge of MS and DMTs has increased, the number of patients on DMTs, and therefore receiving the correct treatment for their condition, has increased.

Conclusion

Prior to this project, Doctors and Pharmacists confidence and knowledge regarding MS and the DMTs used to treat it was low.

A DMT poster was updated and expanded to include prescribing criteria, monitoring parameters, groups of patients to be cautious with, contraindications, side effects and new DMTs, and displayed on Medical Wards and in the Pharmacy department. Interactive teaching sessions also took place; a two hour session aimed at junior doctors and pharmacists and a one hour session specifically for pharmacists. Questionnaires were issued after the poster was displayed and after each of the teaching sessions and the results showed a significant increase in staff confidence and knowledge of DMTs from the baseline questionnaire. In the near future the DMT poster will be made available online to enable more staff to access this information, and increase their knowledge of DMTs. This will then increase the number of MS patients receiving the correct treatment at NGH.

Students shaping public health research and policy: what, why and how?

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Background

Engaging students in public health research and policy-making may bring benefits to both individual students and to the world of health policy. For students, it is a unique opportunity to engage with research and policy beyond the confines of their degrees, whilst developing valuable skills such as literature searching, critical appraisal, writing policy documents, and project planning. It also allows them to better understand what policy-orientated research entails and to make more informed decisions about their future career. There is also a positive impact on the academic literature and on health policy. Students have the time, capacity and enthusiasm to engage with complex public health problems, potentially bringing novel perspectives to a variety of global health challenges. Under the right supervision and training, academics and policy-makers can tap into this cost-free pool of multi-disciplinary student researchers.

Methods

Polygeia is a student-run global health think tank that empowers students to shape public health agenda by connecting them to a range of academics and policy-makers. Founded in Cambridge in 2014, we are now operating across Cambridge, Oxford, London and New York. In 2018, we launched 32 projects engaging 150 students and 20 commissioners/collaborators. A typical team consists of 5 student researchers of various disciplines including medicine, economics, politics, and engineering. The team is led by a project editor and is supervised by an editorial board formed of more experienced students. Each project has an external commissioner or collaborator: either an individual academic or policy-maker, or a public health organisation. They help the teams to develop a research proposal, provide advice over the project timeline, and aid with dissemination of the work. The goal of each project is to produce a policy report or an academic manuscript for submission to a peer-reviewed journal.

Outcome

Polygeia has attracted several high-calibre collaborations, producing work together with the likes of Médecins Sans Frontières, UCL-Lancet Commission on Migration and Health, Royal Society of Public Health and All-Party Parliamentary Groups. We have also worked with a range of academics: from the University of Cambridge, Johns Hopkins, London School of Hygiene and Tropical Medicine, the Institute of Global Health Innovation, and MRC Epidemiology Unit. Our projects have led to peer-reviewed publications, policy reports and presentations at the UK House of Commons and the European Parliament. Polygeia's annual conference is the major event where our teams showcase their work. In November 2017, over 100 attendees gathered in the Wellcome Collection in London where 10 teams gave oral presentations and 11 presented posters. A number of Polygeia's alumni have found jobs in the public health arena and many have identified their involvement with Polygeia as a shaper of their career choices.

Conclusion

Systematically engaging students with population health research and policy-making is a novel approach that can yield several bilateral benefits. Going forward we hope to develop a structured feedback system to continue improving our work, and to continue expanding to new cities. We believe our approach may help develop the next generation of public health leaders.

Introducing Electronic Discharge Summaries into Maternity

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Background

Maternity services in the United Kingdom rely on a hybrid of paper and electronic notes. At a large teaching hospital in Northern England, electronic notes were used intrapartum, but paper notes in the antenatal and postnatal periods. This included the discharge summary to the General Practitioner (family doctor), arriving days to weeks later if at all, with obvious implications for patient safety. There was also no audit trail, frequent duplication and lost prescriptions. Two junior doctors, a pharmacist, midwife and medical student set about introducing an electronic discharge system similar to that used in the rest of the trust, to provide secure, instantaneous email communication to the GP.

Methods

Consultants and midwives were involved early on and together with the IT department a discharge summary form was created. An educational campaign was launched and midwives created a visual step by step guide. Junior doctors and midwives were trained to use the form. All women discharged with medications were transferred to the new system in November 2017.

Outcome

In August 2017 no discharge summaries were sent, with 3 weeks of launching 33% were sent. After a further campaign, this rose to 67%. It now takes a single member of staff less than a minute to find out what medication a woman was discharged on, compared to 2 or 3 taking close to an hour. It has resulted in reduced wastage of duplicate ordered medication, doctors prescribing multiple times and patients going home with the wrong medication.

Conclusion

Electronic discharges:

- 1.Improve communication and continuity of care between primary and secondary care.
- 2.Empowers patient to have access to their own health data.
- 3.Avoids duplication / wasted medication.

Improvements also rely behaviour change and even though the technical aspects may be simple, changing the behaviour of all staff can be difficult and require a multi-pronged approach.

Empowering Junior Doctors to Change Hospital Electronic Patient Record Systems

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Background

A large proportion of time spent on a ward round is reviewing many different elements essential to the patients care. This may include the patient's observations, blood tests, fluid balance, venous thromboembolism (VTE) risk, antibiotics and medications review. Often these essential components are found in disparate parts of the patient's file, notes or computer system. The aim of this project was to survey the opinion of clinical staff and improve access to all these elements on a single page or screen, significantly speeding up the ward round and patient care.

Methods

We surveyed the junior and middle grade doctors across a large teaching hospital in the Northern England, asking which elements of the patient records were easy or difficult to access. Working with IT, we developed two tabs, containing all necessary day-to-day information relating to most patients. We are in the process of surveying the doctors about this change.

Outcome

We reduced the number of clicks junior doctors had to go through by 90%. This has helped to speed up the ward rounds by over 30 seconds per patients on average, making patient care simpler, and reduced the likelihood of mistakes and missing data. Satisfaction with the EPR increased by 25% compared to their previous systems. The time saved, which we calculated as a minimum on an average ward round of 30 patients, was 15 minutes. For the average team of a consultant, middle grade and junior, this amounted to a saving of 45 minutes per ward round and a saving of 1125 minutes (18 hrs 45 minutes) per day across the hospital.

Conclusion

Ward rounds are an essential part of hospital medicine. Each patient has multiple elements that must be reviewed on a daily basis. If these are missed or not acknowledged, it can lead to suboptimal care. Using feedback from doctors throughout our hospital, we were able to implement changes to the IT system to make all patient elements much more accessible. This has led to a significant improvement in the speed of ward rounds and the care provided to patients in our trust and their experience of using our IT system. Inevitably, this results in significant cost savings. We recommend more junior doctors work closely with their IT departments to improve patient safety and care.

Early skin to skin care

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Background

The project took place at our Neonatal and Obstetrical Units at Sahlgrenska University Hospital (SU) in Gothenburg, Sweden. We have approximately 11,000 deliveries annually at our hospital.

This project includes infants born between 28 + 0 and 34 + 6 gestational weeks. Our parent surveys indicated a desire not to be separated. It is already well documented that skin to skin care directly after birth has many benefits associated with bonding, attachment, higher breastfeeding rates, stimulation of breast milk, improved thermoregulation, stabilization of blood glucose and regulation of the transition from fetal to neonate circulation; which leads to cardiopulmonary stabilization.

Routine care at our hospital for infants born between 28 + 0 -34 + 6 gestational weeks is that we take the infant to the treatment room. The focus have now shifted to give higher value to the patient with new routines in the birthing room and maintain patient safety. Parents have been active participants.

Methods

A classic Plan-Do-Study-Act method were used. A process map and liaison chart were made to identify improvement areas and obstacles for continuous skin to skin care. In each area, interdisciplinary working groups were created with participants from all involved units. New routines were made to fulfil the goal of no separation. Continuous contact with parents and staff was a prerequisite for achieving the goal which brings an increased value to the patient. A very comprehensive education and information campaign was conducted on all involved units to meet concerns and to motivate.

Outcome

Before the project all infant premature were measured by time on their mother's chest skin to skin directly after birth for a period. We found that no one has skin to skin care. By education and interdisciplinary training the earlier standard care as taking the premature away from the mothers directly after birth has changed. The premature now are placed on mother's chest and get all the well-known benefits for both the child and the mother. Caregivers monitors and intervenes with the baby placed skin to skin to the mother in the greatest extent possible. In almost every case the infants kept normal temperature and the mother's didn't want to leave their child to the staff. The most common reason for taking the infant from the mother's chest was due to staffing problem. The neonatal nurse had to leave the birthing room or the midwife couldn't leave the delivery ward and follow the mother to the neonatal unit. Caregivers experience also affected the time of skin to skin care.

care.

Conclusion

We have shown that early skin to skin care can be carried out for premature directly after birth in evidence-based and patient-safe ways with clear guidelines and collaboration across boundaries.

Parents that have had the opportunity to care for their babies skin to skin for the first hours do not want separated later on.

We have to change our organization to manage new evidence-based routines.

Messages for others:

- Clear evidence-based goals that engage and motivate parents and employees
- Management support
- Massive information effort to all concerned employees and to parents
- Engaged process leaders in cross-professional groups
- Constant feedback of results and praise

Introducing Electronic Surgical Operation Notes

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Background

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Proficient, legible operation notes are vital for post-operative care. Many hospitals in the United Kingdom National Health Service still rely on paper notes. We audited a large teaching hospital and found surgical operation notes to be suboptimal and not in compliance with the national standards of the Royal College of Surgeons. We therefore introduced an electronic form that fits into the existing electronic patient record system.

Methods

Drawing inspiration from national audit registries and national guidance in addition to the existing form, we created a draft version. We used an iterative process, working with the consultant surgeons and the IT department, by producing prototypes and discussing at audit meetings. After about 7-8 iterations a final version was made and this was deployed with a single consultant to iron out any potential issues. This was then rolled out to the whole urology department.

Outcome

The system has been widely used by all surgeons in the department and is proving popular amongst doctors, recovery staff and nursing staff. The date is now recorded 100% of the time vs 90%, time 100% vs 6%. Anaesthetist name 82% compared to 75% and complications 91% vs 6%. Ward staff, report that it's easier to find the op notes, that it speeds up ward rounds and they have no problems with eligibility. Other details that have improved include, blood loss, duration of surgery and ASA grade. It is now easier to perform audits of operations and an improved audit trail.

Conclusion

Electronic notes have the potential to significantly improve patient safety and quality of care by improving access, legibility and improving accuracy. Change is often seen as negative and initially difficult to implement. We therefore ensured everyone was involved throughout the process and co-designed the system with surgeons and IT. Agreement was secured that no further paper notes would be used. Other surgical subspecialties are now actively moving to adopt the same system to improve their own care.

Getting to Zero Suicide: a population approach

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Background

This programme started in SW England in 2014, influenced by Ed Coffey's work in Detroit, inspiring local partnership working to prevent death by suicide. Suicide is a significant cause of preventable and premature death, costing society financially but more importantly in terms of the tragic loss of life years, causing distress and loss of productivity in those close to the victim. The programme has spread the belief that every life lost to suicide is one too many and that everyone has a part to play in preventing death by suicide.

In SW England, the suicide rate (11.2 per 100,000) is higher than the England average and in Cornwall, it is particularly high (at 16.1 per 100,000 population).

Methods

The SW Zero Suicide Collaborative was based on the Breakthrough Collaborative Series. Seven learning events were held between 2014 and 2017 with over 60 organisations represented, from statutory sector providers to voluntary organisations. There was an emphasis on learning from people with lived experience of suicidal crisis and people bereaved by suicide. This provided powerful impetus to take action, with individuals and groups joining forces to work collaboratively.

Cornwall and Isles of Scilly Towards Zero was a partnership which emerged in one locality, sponsored by a local charity, the Duchy Charity. This partnership created 3 collaborative learning sessions, creating new alliances and co-produced projects.

The driver diagram for these programmes was based on the national suicide prevention strategy in the UK: Preventing Suicide in England: a cross-government outcomes strategy to save lives September 2012

Outcome

The SW Zero Suicide Collaborative engaged and activated at least 300 individuals and 60 organisations in collaborative suicide prevention activity. Devon and Cornwall now have vibrant and active suicide prevention groups, running projects within localities.

Cornwall and IoS Towards Zero has involved an additional 150 people and many local organisations to work towards the zero aim.

One of the benefits of the collaborative approach has been to provide a focus for community based activity, for example a poster campaign to reach men, a coastal safety programme and a cathedral service of reflection for those bereaved by suicide. A "fishing for positive mental health" event was supported after a bereaved member of the public approached the collaborative for support with an event to support mental health.

Conclusion

It is necessary to adapt the breakthrough series model to include multi-agency and non-statutory participants. People with bereavement experience and lived experience of mental health crisis offer incredible insights, useful motivation and ideas for improvement but their (and other "professional" participants') support needs should be considered.

Bringing all of the relevant experience into the meetings and working in partnership across Public Health, primary care and specialist mental health care, as well as communities at risk can pay dividends in creating an activated population and reducing the stigma and discrimination that has kept this significant public health issue out of the attention it deserves.

Implementation and evaluation of a transitional care programme for older adults in the IJsselland Hospital

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Background

People with multimorbidity experience a complex of both medical and social problems and they frequently require continuous care in multiple settings. They move between acute and non-acute care settings, such as hospitals, home, intermediate care unit, primary care center, nursing home and hospice. It is within that context, that the transitional care programme for frail elderly with multimorbidity in the IJsselland hospital is implemented in 2016 and evaluated. The Transitional Care Bridge, developed in the Academic Medical Centre of Amsterdam, is incorporated in this programme.

Methods

In this program identification of seniors at risk starts at the Emergency Department. Patients at high risk for functional decline fill out a minimal CGA with their informal caregiver and will be visited if necessary by the geriatric consultation team. Only patients who lived at home were included in the programme. If agreed upon one day before discharge from hospital a community nurse (CN) visits the patient inside the hospital and within 48 hours after discharge and after 2, 6, 12 and 24 weeks.

In a prospective cohort study 50 older patients in 2016 before the start and 50 patients in 2017 after the start of this program, were asked to fill out a questionnaire during hospitalization, and after one and three months after discharge, to measure morbidity, functional limitations, emotional well-being, cognitive functioning, social functioning, self-perceived health, self-perceived quality of life, experiences, GP visits, admissions and self-management abilities.

Outcome

Although mortality and the length of stay dropped in the intervention group, no statistically significant difference was found. There is however a statistically significant difference comparing the age groups of the oldest old (85+) and the average old (75-85).

No statistically significant differences were found in use of care after one and three months after discharge on GP visits, ED visits, readmissions, admission to care home and help from Community Nurse. No effect was found on informal care, as well as on risk of delirium, functional decline, self-rated health and quality of life. On self-management no statistically significant differences were found. The intervention group was however, statistically significant more frail after one and three months after discharge.

During the delivery of the programme it became however clear that community nurses as well as patients experienced the benefits of the programme.

Conclusion

Results are influenced by the small sample and the fact that the intervention sample was more frail. Which was probably due to the extra triage in the intervention group by the minimal CGA. Besides the quantitative approach also a process evaluation using qualitative approaches is conducted to further explore delivery of the programme, and explore patients' and health professionals' perspectives the usefulness and important elements of the programme.

Quality Improvement Clinic: fostering a community of practice across North Central London Hospitals

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Background

Royal Free London is a leading UK Foundation Trust comprising of three acute hospitals and numerous community sites. The trust has developed and is implementing a Quality Improvement (QI) strategy to improve staff experience and patient outcomes. As part of this strategy, the organisation has initiated a virtual QI clinic for staff across the trust. Staff, both clinical and non-clinical felt a distinct lack of support in developing their QI project ideas, applying relevant methodology and in progressing their ideas to fruition. National staff survey results indicated recurrent themes regarding lack of support and resources for improvement activity. Specific feedback from various cohorts of staff, including trainee doctors and multi-disciplinary staff at hospital inductions, weekly teaching and through informal channels was collected. Results showed a gap in QI knowledge, funding and support. 100% of staff members surveyed expressed an interest for additional QI support.

Methods

Champions were recruited from various clinical sites to help collate feedback results to generate further discussions at the trust-wide QI committee meeting. This involved both clinical and non-clinical staff ranging from advisors, sub-division leads to observers, ensuring relevant stakeholder input. A weekly QI drop-in 'clinic' was implemented at the trust. This comprises of a dedicated one hour face-to-face confidential session at the Royal Free Hospital. There is no set agenda and attendees bring their QI project problems and ideas, aiming for resolution and progression. The clinics also provide an opportunity to foster a 'community of practice'. QI advisors trained by the IHI run the clinic. QI methodology is taught and a project matchmaking service allows those looking for help progressing their projects to find support. A monthly virtual QI clinic allows outreach services to all acute hospital sites through a secure video chat interface.

Outcome

Preliminary results indicate a sustained increase in the average number of attendees from 1.5 in May 2017 to 4 in October 2017. 4 attendees have been matched to current projects ongoing in the trust. 3 have re-attended the clinic and 5 new projects have been registered through the clinic. A questionnaire survey to previous attendees will be conducted, assessing perceived usefulness in addressing lack of support for QI. We anticipate favourable results based on verbal feedback and increased attendance.

Conclusion

QI Clinic has obtained increased attendance, widened its reach through a video interface and allowed project matchmaking. Virtualisation has been challenging, however verbal feedback reveals the clinic provides much needed support for trust-wide QI projects. Benefits of this clinic are wide reaching, extending into all the QI initiatives that

develop as a result of accessing it and utilising its problem-solving guidance. Projects encountered are being formally tracked through the IHI's formal assessment scale.

Textbook Outcome as a composite measure for short-term outcomes of gastrointestinal treatments in The Netherlands based on hospital information system data

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Background

The objective of this study was to develop a feasible model (Textbook Outcome) for monitoring short-term outcome of clinical care trajectories for hospitals in the Netherlands using data obtained from hospital information systems for identifying hospital variation. Although genuine health outcomes are considered to be the most valuable indicators, these health outcomes are however mostly unavailable for most diseases. Moreover, collecting data concerning these health outcomes requires substantial effort, is time consuming and usually not routinely part of standard care in most hospitals. Although clinical indicators provide inadequate information on long-term outcome, they can provide useful information on the clinical path of individual patients. Over 62 Dutch hospitals 45.848 unique gastrointestinal patients discharged in 2015 were included.

Methods

Textbook Outcome (TO) is a composite measure of clinical process indicators. TO is realised for patients for whom all desired short-term health indicators are met. This approach enables a simple comprehensive summary of clinical care, and an in-depth analysis to get clinical insight into daily practice, per patient group and indicator, all the way down to the clinical pathway per individual patient. The potential of TO was assessed by choosing three high-prevalent gastrointestinal diagnoses requiring endoscopic intervention. The data set was retrieved from the benchmark database managed by LOGEX (Amsterdam, The Netherlands).

Outcome

With the use of TO, physicians will be able to evaluate and compare their clinical outcomes with their peers throughout the entire country. Reporting the composite measure of TO shows added value with regard to points of interest for the clinical pathway. With this model, a representable benchmark can be compiled for meaningful comparison between medical centres to monitor improvement over years. Pinpointing underperforming segments of clinical care in comparison to their peers is among the possibilities. To the same extent, it is possible as well to identify 'best in class' departments who might serve as an example for horizontal improvement. TO scores can be cross-referenced against produced volume in order to analyse the influence of volume per hospital on the score in terms of clinical outcomes. In this study, we show that available and existing registration data for declaration purposes can be used for monitoring and evaluation of clinical pathways in high-prevalent treatments.

Conclusion

This study shows that applying Textbook Outcome method to existing data provides valuable insight into variance of daily clinical practice on a large scale, without additional time-consuming registration. This method of Textbook

outcome based on hospital information system data can be applied to many clinical trajectories for monitoring and improving the clinical pathway and outcome for patients.

Improving Diabetic Patient Flow in Kuwait Primary Healthcare Centres by utilizing Lean Philosophy

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Background

Kuwait government has been constantly vigilant about their healthcare system. Their healthcare system is facing challenges and has opportunities. Aging population, chronic diseases, increase demand, new technology and expensive services made organizations under pressure. In this era, providing health services in high quality and achieving patient expectation with minimum resources considers as a challenge. Therefore a new way of providing the healthcare services must be adopted. Lean philosophy could be the solution as it promises to provide more with less. The principal notion behind the lean is to eliminate waste and only provided what the customers value with minimum resources. Despite lean has the potential for providing benefits to developing countries healthcare system, there is a shortage of extensive research in that context. The researcher aims to explore the case of lean in Kuwait healthcare system by applying lean to diabetic patient's flow in Primary Healthcare Centres.

Methods

A survey and interviews with healthcare workers in different levels and departments will be conducted to explore the existing state of lean initiative within Kuwait Primary Healthcare Centres. A mixed methodology will be used where sometimes the researcher required to meet different parties or visits different places or sometime to observe certain processes and activates. For both the assessment of existing problems and proposed solutions to improve diabetic patient flow, an application of a mixture of lean techniques and tools across the selected Primary Healthcare Centres to tackled a collection of problems. These related to appointment scheduling, waiting time, unclear processes and roles, lap request processes, miscommunication, outpatient clinic layout, no show, care and activities coordination and others. Starting with drawing the current process map, moving to waste identification and developing the future map, where several ideas and solutions will be proposed and implemented.

Outcome

The measurement of improvement including waiting time, the length of the patient journey, number of patient visits per year and patient satisfaction. The expected outcome of lean implementation is improving patient flow, safety and experience while also enhance system efficiency and effectiveness with better service quality and staff wellbeing. Bringing patient perspective, involving frontline worker and buy in the leadership support together help understand the reasons of poor patient flow and the sources of waste. The published research within the litterateur concerning lean initiatives within healthcare sector failed to prove their effect on patient satisfaction. Therefore, bringing the patient voice for the future research before, during and after lean improvement project implementation is fundamental. Even that first claimed published study regarding lean implementation in healthcare is 15 years old, the research and knowledge of lean management is just at the infant stage.

Conclusion

As the healthcare system consists of many departments and specialties, there is an obvious fragmentation in the process where each party is not aware of the impact of their works on the other units or service provider. This leads to the disintegration of the services provided leading to delay, duplications, errors, waiting time, improper procedure,

overproduction, unnecessary transportation and as a result low-quality services. Lean has the potential yet inconsistent benefit on process outcomes like Patient Flow (PF). The following are some gaps in the lean application:

- -Lacks rigorous evaluation.
- -Missing of a control group.
- -Superficial input from patients.
- -Not explored in primary care.
- Not explored in developing countries.
- -Lack of Leadership support.

Also, the follow-up of diabetic patient is a long life journey where a medical doctor, along with other healthcare providers will see the patient on a regular basis. Therefore, looking at improving the diabetic PF is worthwhile.

E-consults in primary care

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Background

In the UK, online consultations have been proposed as a way of addressing increasing patient demand, reducing GP workload and stress, improving accessibility, efficiency and patient satisfaction. Pilot implementations of the two main systems of online consultations, one of which was developed by the Hurley Group (eConsults) have underlined patient satisfaction and potential benefits to the overall health economy (Madan et al 2014; Longman and Diggines 2015, NHS England 2018). Independent evaluations of eConsults have not only shown impact on GP workload and stress to be negligible because of the low percentage of eConsults [0.3%-0.9%], but also underlined concerns that workload and costs may have increased rather than decreased (Matheson 2016; Edwards et al 2017; Farr et al 2018). Commissioners in Wessex want to understand problems encountered in implementing eConsults and factors to successful embedding in daily routine practice in order to enable shared learning.

Methods

A conceptual framework based on Normalisation Process Theory [NPT] (May and Finch, 2009) informed a mixed-method observational research design (Plowright, 2015) to generate insights into key drivers and barriers to implementing eConsults in Wessex in daily routine practice in a long-term sustainable way. The research design includes a survey of GP practice staff and structured focus groups with staff in both successful and less successful GP practices in order to better understand key factors or ingredients linked to successful implementation.

Outcome

We anticipate insights into drivers and barriers to implementing eConsults achieved by a better understanding of: how GP practice staff conceptualise and make sense of eConsults; how they engage with the implementation of eConsults and the extent to which key people are driving the implementation forward and getting others involved; how staff collectively enact the work required to implement eConsults i.e. how are activities linked to eConsults are structured and constrained; and the extent to which staff have access to information and feedback about the implementation of eConsults and can modify how they work with eConsults (See May and Finch, 2009).

Conclusion

We anticipate a better understanding of a) problems encountered during the process of change and b) key factors to successful embedding in daily routine practice in order to facilitate shared learning for the benefit of both patients and GP practice staff. Our previous evaluation of a very small pilot implementation in 2 GP practices (n=13) using survey, focus group and interviews found that only 25% in GP1 and 20% in GP2 agreed while 13% in GP1 and 40% in GP2 disagreed that they valued the impact of eConsults on their work. Only 20% of GPs in GP1 and 60% in GP2 encouraged patients to use eConsults. Only 40% of GPs in GP1 and 60% in GP2 would have liked their own GP to offer eConsults vs 78% for Madan et al (2014). In contrast, all administrative staff (n=3) involved in processing eConsults wanted their own GP practice to offer eConsults (Matheson 2016).

The Learning Network for Good Patient Pathways for Elderly and Chronically ill- What matters to you- Norway

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Background

Norwegian health authorities consider health and social services to be fragmented, which creates challenges such as lack of continuity of care for elderly and chronically ill patients. There is a lack of cohesion and considerable. The patient's opportunity to participate is mostly limited to individual services.

Better care coordination between primary and specialist health care services to ensure patient safety and continuity of care is therefore needed. In addition, more involvement from patients and should be encouraged to implement structures and systems for more cohesive patient pathways.

The 2012 Coordination Reform has strengthened the municipalities' role and responsibility to ensure that vital health and care services are delivered to the population. However, this calls for a different municipal structure from the one we have today. The municipalities must therefore be equipped to fulfil the intentions of this reform.

Methods

This is a national program managed by the Norwegian Association of Local and Regional Authorities (KS) and the Norwegian Institute of Public Health. Nearly 200 municipalities are included divided into 8 sub-networks

The municipality of Oslo is divided in 15 Districts, with three associated local hospitals. Three of the districts and one hospital are included in the program in addition to an intermediate emergency hospital, one rehabilitation unit and a nursing home.

Each unit has a local multidisciplinary improvement team consisting of health care workers (doctors, GP, nurses, physical and occupational therapist).

The networks serves as a quality improvement and educational framework for organizing the learning process with the objective to share competence, and human resource development. The teams work to improve the patient pathway. The program takes place through regular gatherings. Between them, implementation and data collection take place. The program lasts for 21 months

Outcome

The improvement teams in Oslo have worked with procedures and checklists that will provide better and more standardise patient pathway in their own services and across service levels. This systematic care pathway is based on the Patient Trajectory for Home dwelling elders PaTH (HPH). The model outlines responsibilities and tasks between hospital and primary care in the patient course, with a focus on transfers within the municipality and between hospitals and municipality.

Some teams have been working on the reception of patients. Several teams have been working on use of manual /electronic boards. Others are working on patient safety areas such as measures for reducing harm, use of clinical observation and mapping tools. The program has a strong focus on the user perspective. The philosophy is to change the mindset from asking patients «What is wrong with you?» to «What matters to you?» This has become a global and international movement which was marked in nearly 30 countries in 2017

Conclusion

The program in Oslo is now in the implementation phase and will end in February 2019. The main goal is to develop generic and safe patient-pathways and health-promoting health services which will be presented and scaled-up to other districts and other hospitals in Oslo, if deemed successful.

The program introduces a new approach of complete patient pathways in the municipalities. The patient pathways represent a more systematic way of working with existing tasks and encourage a stronger interaction between involved professions than the existing procedures. The “What matters to

you?” approach moves the focus of patients and health workers from diagnoses and disease-based care to functional ability and patient goals and preferences.

Strategic planning for improved patient involvement in Danish University Hospital

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Background

Aarhus University Hospital in Denmark implemented Shared Decision Making and Self-Management Support in 19 departments by involving patients, clinicians, hospital leaders and managers. The hospital had a clear strategy for involving patients and staff in developing implementation methods.

- Staff ask for patients' views on possibilities for improvement
- Staff and patients look for possibilities for Shared Decision Making
- Staff and patients look for possibilities for Self Management Support
- Co-creation of Decision Aids

The literature points to important leadership tools to generate change

- Motivate and discuss
- Identify barriers and facilitators
- Network and find ambassadors
- Involve and co-create solutions
- Build capacity and show by example
- Support organisation
- Identify sub-groups and discuss

Methods

Staff was invited for discussions on how to lead and implement in an open co-creation process through 8 sessions each lasting 3 hours over the course of 3 years with following topics:

- Leading and managing patient involvement
- Communication strategy
- The patient as change agent
- Staff as patients
- Medical doctors – worries and barriers (the medical doctors were exclusively invited for participation in focus group discussions)
- Organisation of support within the hospital
- Ambassadors and networking
- Scale-up

Outcome

Involving staff in interviewing patients as well as leading and planning patient involvement transforms doubting to understanding and realisation that patient involvement has a positive influence on:

- Adherence, health literacy, patient satisfaction, quality and safety, collaboration
- The need for change: "We thought we did – but we did not"
- Guidelines often do not describe choices
- Patients need knowledge to make shared decisions
- Difference in clinical language and patient language
- Decision aids facilitate and systematise dialogue with patients

- Patients are absolutely capable of participating in shared decision making
- Doctors' role change from "Magician" to "Facilitator"

Conclusion

It is an eye opener to staff to listen to the perspective of the patients from the patients themselves. It motivates staff to engage in developing patient pathways and decision aids for Shared Decision Making and Self Management Support. When a hospital wants to improve patient involvement through co-creation of decision aids for Shared Decision Making and Self Management Support including patients and staff in the process; it is beneficial to involve the staff in co-creation of leading and planning.

Assessing the Effects of a Multidisciplinary Lung Cancer Clinic on Timeliness of Lung Cancer Treatments and Staging Tests

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Background

Kingston Health Sciences Centre (KHSC) is an academic centre serving a catchment population of >500,000. KHSC manages approximately 400 new lung cancer (LC) patients/year, with 60% of diagnoses made through the Lung Diagnostic Assessment Program (LDAP), a clinic that evaluates patients with suspected LC. Historically, once a cancer diagnosis was obtained, patients returned to clinic for results and oncology referrals were placed. The KHSC region has the lowest 5-year LC survival in the province of Ontario, Canada, at 13.7%. We identified assessment and treatment delays for patients with new LC at KHSC and sought to determine whether integrating oncologists into the LDAP would improve timeliness of oncology assessment and treatment, and reduce diagnostic waste, for new LC patients. This novel approach to bridging the diagnostic and treatment phases of LC care could improve the quality of care in several dimensions: effective, efficient, and timely.

Methods

We implemented a weekly multidisciplinary clinic (MDC), involving respirologists, medical oncologists (MO), radiation oncologists (RO), and thoracic surgeons where patients with a new LC diagnosis were offered concurrent oncology consultation. The clinic was piloted July-August 2016, to establish feasibility (PDSA Cycle 1). The large-scale weekly MDC was launched in February 2017 (PDSA Cycle 2). In April 2017 (PDSA Cycle 3), a group debrief took place to discuss lessons learnt and troubleshoot issues. In June 2017 (PDSA Cycle 4), a MDC retreat took place, whereby all MDC clinicians discussed further improvement strategies. In response to increasing patient volumes, an additional clinic per month was added in Sept 2017 (PDSA Cycle 5). We reviewed the charts of patients seen in the LDAP retrospectively for baseline data, and prospectively collected post-implementation data to determine time points, clinical cancer stage, and staging tests performed.

Outcome

128 MDC patients have been seen in 34 clinics; 120 had a new LC diagnosis (3.8 patients/clinic). 112 LC patients (98.2%) received RO consultation, 78 (68.4%) received MO consultation, and 76 (66.6%) received both, unchanged versus pre-MDC. Mean days from diagnosis to first oncology assessment decreased from 12.4 days to 3.9 days as of PDSA Cycle 5. 81 patients (71.1%) received treatment (71 [62.8%] radiation, 29 [25.4%] chemotherapy, 21 [18.4%] both, 12 [10.0%] had surgery, and 7 [6.1%] referred to alternate sites for treatment). Time from diagnosis to first treatment decreased from 39.5 to 15.0 days and improved for patients with every stage of LC. Mean time from diagnosis to radiation treatment decreased from 34 to 15.1 days, while time to chemotherapy decreased from 51.8 to 37.7 days. Mean staging imaging between LDAP referral and treatment and mean biopsies decreased non-significantly (2.2 pre-MDC to 1.9, $p=0.092$) and (1.15 to 1.14, $p=0.914$) respectively.

Conclusion

A MDC model enables physicians to deliver more timely care to patients, shortening time to oncology assessment and treatment. A team that is committed to improving care can create cost-neutral, innovative ways of improving care. Creating sustainable improvements requires continuous measurement and persistence in overcoming barriers. Lessons Learnt: 1. Time to treatment had a greater relative improvement than time to oncology assessment, suggesting this improvement involves more than faster oncology assessment, and is a result of improved communication between specialists; 2. Enhancing thoracic surgery presence at the MDC could optimize the management of early stage LC; 3. The addition of a MDC nurse navigator to facilitate transitions of care would be beneficial and further improve sustainability. Our next steps will be conducting semi-structured qualitative interviews to evaluate MDC effects on patient, caregiver, and clinician experiences.

National Network Medical Patient Safety Officers: “All teach, all learn !”

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Background

Since the implementation of the National Safety Program (2008-2012), many medical professionals got a formal role as patient safety officer (PSO) and/ or medical chief quality officer in their hospital system.

Methods

In december 2012 the Dutch Federation of Medical Specialists facilitated the organization of a national learning network of medical PSOs.

Outcome

In this network we discuss, exchange and learn from eachother's experiences e.g. all teach all learn !

At present, our network covers > 85% of all Dutch hospitals with respect to participation of their medical patient safety officer/ medical chief quality officers.

Topics which have been discussed in networkmeetings are e.g. medicationsafety, second victims, crew resource management, how to learn from sentinel events, integral riskmanagement, use of patienttracers, how to deal with media, safety 2, profile of medical patient safety officer, peer support, HRM for medical professionals & transparency on sentinel events.

Also we have a digital platform available on which we can discuss relevant topics, network with others PSO's, pose questions and issues on quality and safety, share relevant literature on quality and safety etc.

Conclusion

Clinical leadership is imperative in implementation and sustain quality and safety initiatives. Our network contributes to the shared learning.

Decrease of paediatric cancer patients on hospital waiting list through using effective screening and triaging system

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Background

The Children's Cancer Hospital Egypt 57357(CCHE) widely known as Hospital 57357 is a unique healthcare institution and an ultimate example of what can be achieved when people work together for a common goal. The people of Egypt and friends from all over the world and most particularly in the Arab World have contributed generously to the establishment of the hospital which has been completely built by donations. Egyptians from all walks of life rallied around the setting up of a state of the art paediatric oncology hospital to achieve the dream of a better tomorrow for their children with cancer.

Team involved include CEO , paediatric oncology department head , nursing team , engineering , social worker , patient relation.

Methods

we used PDCA methodology to decrease number of patients days on waiting list,

list of interventions made:-

1. 1-develop new patient triageing system before admission in new designed clinic called screening clinic.
2. 2- classify patient according to screening to 6 waiting list for 3 main diseases (neurosurgery –solid – hematology)
3. 3-each disease has 2 lists (one for fast trace and other waiting for available)
4. 4- fast track patient could be managed in OPD clinics, do immediate admitted admission.
5. 5- removal of nonmalignant patients from waiting list.
6. 6- admission of patient on regular waiting list when bed is available.
7. 7- design computer application.

Outcome

Average No of patient days on waiting decreased from 34 days to 7 days

No of accepted patients to be treated increased from 32% to 69% from waiting list

Conclusion

Leadership and staff commitment and collaboration to decrease patients stay in waiting list were the motive to overcome all challenges which the most difficult one in design the new process , provide needed logistics and train staff in one month

8) Lessons learned

The most important Lessons learned were to do a very good planning, staff training and simulation before implementation

9) Messages for others:

to be creative and think out of the box to solve any problem, collaborative and multi-disciplinary team can achieve any required objectives and achieve better patients outcome and satisfaction

Strengthening the Role of Clinical Directors

Marion Poore

Southern District Health Board New Zealand

Background

Southern DHB New Zealand provides health care services for 318,000 people and since 2010 has experienced major organisational change. This project began in 2016 prompted by an increasingly disengaged senior medical staff and Clinical Directors (CDs) frustrated at poorly defined roles, insufficient support and highly variable terms and conditions. The aims were to: propose a system of medical leadership; develop a job description and support package; develop a training and support programme; find ways to improve engagement between medical staff and senior managers.

Methods

A small group of interested CDs and executive managers met regularly to improve understanding of CD roles, clarify current issues and to work on the four aims. Surveys of current CDs and their service managers were undertaken to describe the range of tasks and functions, identify challenges and opportunities of the role assess the resources, time and support needed and the interactions of the two roles. Thematic analysis of these data was undertaken. Papers were developed for discussion with CDs and feedback from CDs and others, informed the final proposals which were presented to the chief executive for endorsement.

Outcome

A system of medical leadership was proposed which recognised the need for formal leadership roles across hospital and community settings. Further, all medical staff were seen as being informal leaders for their service through a programme of work co-ordinated by the CD.

The surveys and subsequent discussions identified key CD functions to inform a new position description with performance and accountability requirements. The support package included allocation of time for leadership within service delivery and consistent remuneration. A leadership training and skills development programme is being established.

In May 2017 the CE requested a temporary halt to the project because of another extensive organisational restructure and to quantify the potential costs of the proposal.

Conclusion

An effective system of clinical leadership is essential for delivering high quality and safe health care services but should be regularly reviewed to ensure it is fit for purpose. Surveys of CDs and service managers provided rich information about the complexity of leadership roles which should ensure effective day to day service delivery; take a quality improvement focus; and plan for the future.

This project resulted in a more cohesive CD group with improved understanding of the requirements and expectations of their role. The proposed system of medical leadership provides a framework for a leadership skills and development programme although more work is required.

improve nutrion documentation process using PDCA methodolgy

fatma ali mandouh

57357 CCHE Childeren cancer hospital in Egypt

Background

The Children's Cancer Hospital Egypt 57357(CCHE) is a 320 bed non-profit hospital one of the biggest hospitals specialized in children's cancer in the world.

Nutritionist round & 24 hour intake analysis may play a role in early detection and reducing the risks of malnutrition.

A multidisciplinary team was formed from clinical nutrition, quality, informatics, nursing department to start a quality improvement initiatives in improving documentation completeness of both Nutritionist round sheet & 24 hour food intake analysis for newly admitted patient.

Methods

Upon reviewing the key performance indicators (KPI) regarding nutrition department by quality department, there were found the low documentation compliance of both Nutritionist round (30%) sheet and 24 hour food intake analysis (30%). Multidisciplinary team is formed and meetings to clarify the current process and understand the root causes.

Fishbone was done and brainstorming revealed list of causes were:-

1. Unclear Nutrition policies & procedures.
2. Lack of IT technical support.
3. Lack of training on policies & procedures and new forms.
4. No standardized training process for newcomers
5. Lack of follow up.
6. Staff shortage.

INTERVENTION

1. Reviewing and updating forms, policies & procedures.
2. Continuous training (departmental orientation).
3. Development of electronic 24 hour food intake analysis.
4. Technical support from informatics.
5. Linking the nutrition process key performance indicators with monthly incentives.

Outcome

Percentage of documentation completeness compliance of nutrition round sheet is reaching the target 90% on the end of October 2017 but we still in check phase and continuing sustaining the improvement.

Percentage of documentation completeness of 24 food intake analysis still struggle but it is near the target 87% on the end of October 2017 we are expecting to improve the next month and we will work on sustaining the improvement.

Conclusion

1. Awareness & training is continuous process.
2. Motivation & recognition of the staff leads to success.
3. post go-live follow up when dealing with electronic medical forms .
4. Engagement of stakeholder lead the change to the right direction.

Leadership Culture in Kuwait Health Services

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Background

Medical practices have the tendency to develop and grow. Kuwait Health Services (KHS) is currently facing many unprecedented challenges and potential changes. Appropriate leadership behaviour is essential in such era as it has a significant impact on the organisational climate. One of the key area that influences almost all aspects of the healthcare system is leadership. Positive leadership considers a vital factor for any improvement initiative such as improving the hand hygiene compliance and implementing lean philosophy. This could explain why adopting different improvement approaches superficially without the leadership support and commitment will result in a temporary success. One of the essential leadership roles is to provide the support for the employee and fostering their empowerment for improving the services. This project aimed to understand the current leadership culture (LC) in Kuwait Health Services.

Methods

A cross-sectional quantitative survey conducted in KHS in December 2015 with sample of 194 healthcare workers. The aim was to understand the current LC, by focusing on the perception of senior leaders, physicians and nurses on the opportunity provided in their job, their perception of their immediate manager and the way that organisation is functioning to foster the leadership climate. For the analysis, the author used general descriptive statistics including numbers, percentages, range and averages. There was no need for more sophisticated quantitative methods as the descriptive analysis was overwhelming. It is based on the NHS staff survey, Kuwait national accreditation standards for hospitals and the survey developed by King Fund. The samples were divided between Kuwaiti and Non-Kuwaiti staff; about 194. Respondents to the survey gave different views and opinions regarding their job, manager and organization.

Outcome

The survey revealed a mixed picture of the LC. The staff members having an administrative position tended to be much more positive about the LC than others. There is a consistent discrepancy between the views of Kuwaitis and non-Kuwaitis about their manager and the organization as a whole. 50% of Kuwaitis believe enough priority is given to the quality of care in comparison to 79% of non-Kuwaitis. The survey illustrated that nurses report a positive image of the organization in general. Also, it showed that feedback, either from patients or staff, wasn't considered seriously by the responsible bodies. Then higher authority and healthcare leaders at different levels need to ensure implementation of all the steps that help to create a positive LC to improve the employees' leadership skills and give them the opportunity for better performance. The nursing staff must be encouraged not just for being responsible for his/her jobs or working area but for the organization as a whole.

Conclusion

The authors argued that effective healthcare management doesn't require the leaders to be focusing on giving orders for improvement but to involve all healthcare worker at all levels in decision making. Indeed, those who have a direct influence on the organisation LC should harness the ability of the staff to practice process improvement as a part of their daily activities by creating a suitable environment characterised by openness, compassion and transparency. This requires the establishment of transparent cultures; wherein mistakes are considered an opportunity for learning, and health workers can raise concerns and be confident that the organisation will take appropriate action. The overall aim of this survey was to advance our understanding about the current LC in the KHS. The results can guide higher authority

and policy-makers in introducing changes for improving the LC and consequently enhance the quality of healthcare services and utilize resources effectively and efficiently.

Empowering Medical Students: A Model of Quality Improvement Curricular Integration in Undergraduate Medical Education designed to reduce Health Disparities

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Background

US healthcare is the most expensive and the least effective in the world, with wide health disparities. Calls for integrating QI mastery into undergraduate med ed have come from national and international organizations yet models for this implementation have been lacking. Monitoring the value of engaging all medical students into quality improvement principles and practice has as yet not been done. Boston University School of Medicine's (BUSM) primary affiliated health system is Boston Medical Center, the largest safety net hospital in New England. Improving the health of the underserved is a motivator for students who select BUSM. Students often feel they are not contributing to patient care, limited metrics exist which evaluate students ability to be effective care providers exist. We present a novel integration of QI with required medical student rotations which demonstrates feasibility and effectiveness in reducing health disparities as an exportable model for other organizations.

Methods

Students participate in eight (2015-2017) or nine (2017-18) integrated QI projects during rotations. The entire project was developed to follow Kirkpatrick guidelines for assessing learner satisfaction, knowledge acquisition, behavioral change, and clinical effectiveness. Clerkship projects were designed to follow specialty, departmental, and organizational QI priorities. Students received didactic education on QI, brief overview of clerkships' planned interventions, and pre-test to assess QI knowledge. Post-test was administered at the academic year's end, in April 2016. Each student received additional orientation to individual clerkship projects as they rotated through each clerkship.

Outcome

This project demonstrates the feasibility of full integration of a cohort of medical students into quality improvement projects across clinical sites. QI initiatives designed for medical student participation provide experiential education regarding health disparities, team-building skills, and evidence based med. A collaborative effort between clinical clerkships to facilitate medical student engagement throughout the third-year also provide leadership opportunities for students, residents and faculty with career interests in quality improvement and patient safety. Above all, medical students play active roles in quality improvement processes and contribute towards improved care for patients. This model demonstrates that forward motion toward U.S. and international recommendations can be made despite the current lack of universal faculty QI competence. Indeed, we are training the QI faculty of the future. Challenges include continuing projects through faculty and student transitions.

Conclusion

Developing medical school graduates experienced in both didactic & experiential QI education has the capacity to both directly improve the safety and efficacy of graduate medical training as well as hasten the transformation of the healthcare system internationally. Allowing medical students to participate in patient engagement exercises tied to improve patient care empowers a group of students.

This model is both adaptable and exportable to other clinical and educational environments, and its success demonstrates that implementing an integrated model in QI can be scalable to large groups of learners.

Improving Assessment and Prescription of VTE Prophylaxis - A Small Intervention Review at Jersey General Hospital

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Background

A 2-level study to review assessment and prescription of VTE prophylaxis of medical and surgical patients at admission. This was performed in a mid-size, island-based hospital in the UK in response to ongoing audit standards, and in response to a patient fatality and subsequent evaluation.

Methods

This involved auditing all adult, public patients within the hospital at two time points in mid 2017, both before and following the introduction of a new intervention (a new drug chart with added prompts to consider and prescribe VTE prophylaxis). A further audit was performed 1 year following the second audit in order to review if bias existed, and if it was subsequently eliminated.

Outcome

The comparison of data both between the two initial time points (2017) and the further 2018 time point indicates a general improvement of documentation of assessment of VTE on patient clerking and admission. While prescription of VTE remains fairly stable, there has been a global decrease in patients being missed at both admission and throughout their stay, and which has resulted in better patient outcomes

Conclusion

While the new pre-completed drug chart requires a greater financial outlay for the wards, and the hospital at large, the continued reduction in mortality and morbidity of patients as a consequence more than justifies the ongoing investment.

Towards safe medication administration in a Danish nursing home - When frontline staff lead improvement in the Municipality of Aarhus

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Background

Aarhus Municipality works continuously with quality improvement in the elderly care e.g. by being a part of the Danish Patient Safety program - In Safe Hands (ISH). The aim of ISH is to improve patient safety through elements as systematical education in improvement methods, leadership involvement and data development. As a part of ISH one nursing home have worked systematically to prevent unintended adverse incidents (AI) in the medication administration process.

Unsafe medication practices are a leading cause of injury and avoidable harm in healthcare systems across the world. In 2016 76% of all reported AI within The Department for Health and Care in Aarhus Municipality were related to medication practices. AI concerning medication occurs every month and are typical related to dispensing and administration errors, which can result in severe harm, disability and even death.

Methods

This is an ongoing project, which started November 2016. A workflow analysis was conducted to document the current state of medication practice. Observational studies resulted in a visual workflow diagram and was analyzed in collaboration with the frontline staff (FLS). A interdisciplinary improvement team of five FLS and their leader are now working continuously with PDSA cycles to improve the workflow and establish a learning culture that proactively reduce medication administration errors. Their process indicators are: 1) the number of huddles per week 2) the number of days per week with a medication leader at 12 pm 3) the percentage of medication administrations where the checklist is met. The outcome measurement of the improvement work is given by a result indicator looking at the total number of ordained medication not given at the time ordained (per week).

Outcome

Since May 17 daily huddles are held every day with no exception and shows a stable process. The FLS take turn in facilitating the same agenda every day. The aim is to reflect and learn from past medication errors and delegate the medication leader at 12 pm. in each floor. Medication administration at noon has shown to be a critical time of the day. Being medication leader includes giving medication to all residents of the floor. The team has tested the function through several PDSA cycles e.g. avoided disturbances by wearing a yellow vest. The FLS follow a workflow checklist to support safe medication administration. Not all ordained medication has yet been given at the ordained time every week (result indicator). However, due to the systematic data collection we know how our system is performing at every time of the day. We can adjust our workflows based on data rather than hunches and opinions.

Conclusion

Major organizational changes such as implementing a new IT system has shown to be a significant obstacle to the daily improvement work due to new workflows. Additionally, leader management is crucial to secure that the improvements are carried out as a part of the entire team and not only by the frontrunners.

Creating positive professional and innovative work environments for high quality patient care

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Background

Nurses working in hospitals with strong leadership as to a professional working environment (high number of bachelor-level nurses (BSN) and prospects for professional development) perceive more autonomy and control over their work and experience better collaboration with physicians. This professional nursing work environment has a positive effect on patient-related outcomes, but also on personnel-related and organization outcomes. A growing number of hospitals in the Netherlands are currently transforming their functional nursing working environments into professional working environments by implementing function differentiation and creating two nursing profiles: a bachelor and vocational profile. However, because of the limited empirical or theoretical guidance for such a transformation, hospitals often choose their own paths based on available resources and contextual requirements.

Methods

To obtain in-depth insight into this transformation and find out what the perceived efficacy is of empowerment strategies used to facilitate this transformation we did four consecutive studies:

1. a qualitative interview study on staffing issues (N=27);
2. a systematic review on the effect of Structural Empowerment (SE);
3. a qualitative interview study on the use of Professional Practice Models (PPMs) (N=23);
4. a qualitative study on the perceived importance of clinical academic career pathways (CACPs) (N=24).

Outcome

The Dutch nursing work environment appeared to be a 'basic functional environment': it lacks a supporting climate for nursing professionalization and dealing with inefficient processes and low NPRs. Nurses are therefore challenged to take responsibility to improve their work environment. Managers can help nurses facing these challenges through role modelling and empowerment (study 1). To positively influence the nursing work environment, nurse managers should especially support nurses affected by work events or experiences, create structures and processes that enable interactions, or create and providing more career possibilities (study 2).

Extrinsic factors were main drivers for most hospitals to start projects to transform the nursing work environment. Within these programs the emphases were different, however increasing the number of BSN-trained nurses, improving (clinical) leadership and implementation of Evidence Based Practice seemed to be common denominators (study 3 & 4).

Conclusion

Current nursing work environments seems to be the root cause of the lagging professionalization of the nursing profession. To establish a transformation from basic functional to a professional innovative work environment, (nurse) managers and leaders should ensure empowering working conditions:

- Acknowledge the crucial role for nurses in healthcare;
- Involve nurses in government and policy-making;
- Facilitate academization by creating a supporting infrastructure for nurses combining clinical practice and academic work.

Medication Reconciliation: A Conscious Approach to Superior Patient Care in the Hospital Setting

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Background

Reconciling medications is a process essential to patient safety. Ensuring patients are receiving their home medications to avoid the deterioration of comorbidities while working to diagnose and treat new ailments eliminates a source of patient harm. In our dedicated Observation Unit (OU) at NYU Health, we recognized the importance of timely and accurate medication reconciliation particularly while caring for medically complicated patients with multiple comorbidities in a fast-paced setting. In an effort to streamline the medication reconciliation process in hopes of decreasing administration errors and minimizing avoidable harm to patients, we created a Quality Improvement team to revise the workflow. We plan to educate providers on how to use the electronic medical record (EMR) with proficiency and ease in order to avoid improper entry of medications. The ultimate goal is to expand the simplified process initiated in our high volume area of the hospital to the entire medical center.

Methods

The interdisciplinary team, composed of providers, nurses, ED clinical pharmacists, and administrators, reviewed the current medication reconciliation layout and redundant and user-unfriendly areas were identified. Throughout multiple meetings, a more concise and intuitive process was developed. The proposed EMR changes were then presented to administration and “champions” were identified to teach providers and nurses how to properly and efficiently use the streamlined process.

While awaiting EMR changes, a clinical pharmacist was hired to provide real time guidance on medication management and to review medication reconciliations. The interdisciplinary team played an instrumental role in guiding this clinical pharmacist by suggesting tasks for him/her to complete on a daily basis.

Next, the QI team will analyze data pre- and post-intervention to determine whether or not fewer medication errors were made and if fewer pharmacy interventions were needed to prevent patient harm.

Outcome

This QI endeavor brought together a multi-disciplinary team that focused both on the medication reconciliation process and its management through the EMR.

Adjustments to the EMR workflow are currently underway. Although we have yet to compile the data to compare the number of medication administration errors, pharmacist interventions, and length of stay before and after simplifying the medication reconciliation workflow, we expect to see a significant decline in these numbers following the intervention.

Conclusion

Timely medication reconciliation, while at the same time ensuring patient safety through avoidance of medication errors, is a time-consuming process with significant room for error in all hospitals.

Treating patients for acute medical problems can dramatically affect their other comorbidities and lead to derailment of those that are already well-controlled. Improper medication reconciliation can also lead to patient anxiety and dissatisfaction knowing they are not properly taking medications they were previously prescribed.

Once the process is more user-friendly and conducive to quick, yet thorough, medication reconciliations, we hope to show improvement in patient care by reducing number of medication administration errors, pharmacist interventions, and length of stay.

Appropriate Antibiotics: A Multidisciplinary and Community-focused Approach Towards Culture Change and Antibiotic Stewardship

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Background

Antibiotic resistance is a national concern. In our dedicated Observation Unit (OU) at NYU Health, which sees a high volume of medically-complex patients, the Quality Improvement team noticed a higher than expected volume of Vancomycin prescription for patients placed in the OU for treatment of cellulitis. In an effort to educate providers regarding the importance of antibiotic stewardship and to ensure that appropriate antibiotics are prescribed with the goal of patient safety and positively impacting patient outcomes, the QI team collaborated with the antibiotic stewardship program and infectious disease teams to create a teachable algorithm to guide antibiotic selection.

The objectives of this project were to create a relevant, interdisciplinary antibiotic selection algorithm, educate all providers on appropriate use of the algorithm, and observe any impact on provider antibiotic selection, length of stay, conversion rate, and bounce back rate of patients treated for cellulitis.

Methods

An interdisciplinary team was created which included Infectious Disease physicians, Pharmacists, OU providers, nurses, and administrators. Local antibiograms and patterns of resistance as well as relevant clinical practices and national guidelines regarding antibiotic stewardship were reviewed. The treatment algorithm was developed based on a review of available evidence. The algorithm was communicated to staff via email and physical posting of the algorithm and was accompanied by on-site teaching by the QI team regarding the rationale and its intended use. This educational effort spanned months and charts were reviewed regularly during this time. Tailored feedback was provided to the clinical team weekly and durability of the intervention was tracked by ongoing chart audits. A random sampling of charts prior to this intervention was obtained and reviewed by the QI team to evaluate any impact on provider prescribing, as well as on length of stay, conversion rate, and bounce back rate.

Outcome

A random sampling of 104 charts prior to the intervention showed that 56 charts (54%) did not have the appropriate antibiotic chosen. This represents current cultural practices.

After the launch of the algorithm and teaching initiative, interval random sampling of 169 charts of patients treated for cellulitis showed that only 40 charts (24%) had an inappropriate antibiotic chosen. 40% of the 169 charts reviewed post-intervention showed that providers in the OU made medication changes to an antibiotic initially started in the emergency department as indicated by the algorithm.

The pre-intervention group had an average length of stay (LOS) of 27 hours whereas the post-intervention group's average LOS was 28 hours.

The 30-day bounce back rate of the pre-intervention group was 17%, and the inpatient conversion rate was 15%. For the post-intervention group, while the inpatient conversion rate remained at 15%, the 30-day bounce back rate dropped to 5%, which was the most notable impact.

Conclusion

Appropriate antibiotic choices impact a patient's immediate care and future patterns of drug resistance. Cultural practices or behaviors inherently develop and can become "the norm," and efforts to ensure that medical decision making falls in accordance with evidence-based practices is the duty of leadership and QI teams. This multidisciplinary collaboration, coupled with directed and continuous teaching, resulted in a major impact on patient safety with no adverse incidents (ie. sepsis) as would have been noted by an increase in inpatient conversion to a higher level of care. This intervention positively impacted bounce back rates while maintaining inpatient conversion rates, and although it increased length of stay, it facilitated conscious medical decision making, curtailing complications related to inappropriate antibiotic use. This initiative is still ongoing with random chart reviews of cellulitis patients and continued messaging about the importance of antibiotic stewardship.

Painting a picture of recovery: the journey for adolescent mental health using adapted Experience Based co-Design

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Background

The Saunders Unit is a Child and Adolescent Mental Health (CAMHS) Unit at Sydney Children's Hospital Randwick. In August 2017 a multidisciplinary team consisting of the unit Occupational Therapist, Nursing staff, adolescent inpatients and the Sydney Children's Hospital Foundation Art Program Coordinator, assisted by Quality Improvement (QI) staff, undertook a QI project using adapted Experience-based Co-Design (EBCD). It was our hope that through a QI project, we could give young people ownership of their built environment to hopefully reduce the clinical feel of such hospital areas. EBCD is an approach that enables staff and patients to co-design service changes, together in partnership. For our project, we adapted EBCD, due to the vulnerability of the mental health population and the issues in filming young people who have been admitted to an inpatient unit. Through focus groups and anonymous patient surveys, the idea for the Sensory Room mural grew and eventually came to fruition.

Methods

To develop this mural, a series of workshops were run with the patients and staff, asking them to listen to different types of music and to produce drawings in response to how this made them feel. These artworks were then voted on by patients and staff to determine the subject matter of the mural. The winning design was an Abstract Sky concept. The mural would be comprised of layered colour shapes which interprets the changing colours of the sky as time passes from sunrise to sunset. Patients and staff were then asked to nominate colours which were again voted on, and used throughout the mural. A collage workshop was conducted with staff and patients which allowed participants to each create their own smaller scale version of the Abstract Sky concept, which were then used to create the final design of the mural. Art Program staff led on the creation of the mural through the weekly workshop program, which encouraged patient participation in the creation process.

Outcome

The Saunders Unit Sensory Room offers time out to our young people when they are distressed, to aid in crisis prevention. Throughout their admission, young people are encouraged to practice distress tolerance strategies such as music, exercise, or even chewing ice, which can help someone to self-regulate or provide a distraction from big emotions. Through the creation of the mural, young people have expressed ownership of their built environment, and have been more active in utilising distress tolerance techniques within the room, to aid in crisis prevention and de-escalation. We are hoping to see a decrease in rates of seclusion and restraint, and will continue to obtain this data to support this outcome.

Conclusion

Through our partnership with the Art Program, we hope to continue to use art as an outlet for our young people and develop future projects alongside them to improve our unit. On reflection, we have come up against some obstacles through the design and creation phase of the mural. Due to psychiatrist shortages network wide, we had a limited number of patients coming through our doors, which led to a smaller sample size than planned. In moving forward, we would hope to include a larger population in any future design projects to ensure we meet their needs. Whilst the mural was being created, the room was used limitedly, which has encouraged all staff to consider how we can design our whole unit to become a safe space for de-escalation. Through ongoing conversations with young people and their

families, we will continue to expand our sensory program in the hope to empower young people to remain in control of their environment and safety plans when their emotions become too big to manage.

Lack of documentation in the ehr for patients with nutritional disorder.

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Background

In 2013 at Aalborg University Hospital a local quality project found that documentation concerning 21 COPD (chronic obstructive pulmonary disease) patients' nutritional status were inconsistent in more than 2/3 of the journals when the patients were transferred between wards. The lack of documentation corresponded with an audit completed in the entire hospital in 2015. This audit showed a lack of nutritional screening equivalent to 50% of the journals and a lack of documentation for follow-up in 75% of the patients with nutritional disorders.

Methods

In cooperation with representatives from the hospital's Board of Nursing Documentation, development coordinator for nutrition and the IT department, a manual for electronic documentation of GNP (Good Nutritional Practice) was designed. At four documentation seminars attended by nurses especially interested in GNP the manual was presented and qualified.

The manual recommends performing a nutritional screening on all impaired patients. Documentation of the patients nutritional status will be linked to a problem called nutrition. The problem can be followed, reviewed and evaluated continuously in administrative transfers from one ward to another.

On discharge the problem called nutrition will be terminated if it is no longer relevant. If the problem is still current the patient will be screened and data communicated to the primary care.

The implementation of the manual throughout the hospital will be followed by audits consisting of 10 patients from each Ward, adult patients only.

Outcome

In November 2017 audit showed that an increased percentage of patients were nutritionally screened equivalent to 67% of the journals. However there is still lack of documentation for follow-up, regarding the patients with nutritional disorders.

Conclusion

The initial plan was to evaluate the implementation of the manual in the summer of 2017. However, the learning process was much more time consuming than expected. Although we are still following a more traditional path of implementation we are now, in addition, considering to reach out for the youngest nurses using various tools as APPS and You Tube videos.

Establishing electronic nursing problems that can be followed through the patients' transfers contributes to a coherent GNP. However, it requires a very strict application. The key to implementation of the manual is therefore to fully understand and use all the elements of the electronic nutritional documentation

IMPROVING QUALITY THROUGH CO DESIGN CO PRODUCTION

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Background

Consultation carried out by BHSCT proposing to merge statutory day Centre lead to a significant protect by services users and their carers which resulted in the BHSCT reviewing the proposal. The Belfast Trust set out to involve services users, careers and staff in their commitment to engaging stakeholders in the further planning of services using Facilitating , Empowerment , through Participation and the Appreciative Inquire method of engagement.

Methods

Using the Appreciative Inquire method, 8 day centres across the city facilitated separate focus groups and distributed questionnaires to services users, patents/carers and staff to gain their opinions on :

- 1 What best about current services

- 2 How we can transform and modernise our spaces and places ?

- 3 Ways in which technology can enrich Day services in to the 21 century.

And to establish 'Collective dreams for the future'

Outcome

There was a overwhelming positive response to the questionnaires and the focus group across the city , which is reflected in the engagement and participation outcomes

Collective dreams for the future of day services were collated to provide an over all view of service users , parents /cares and staff wishes. there was consistency across services and participants in relation to their wishes for the facilities, the types of activities they would like and their suggestions for bring services in to the 21st century .

Conclusion

What comes Next ?

1. 1 a design workshop will be held to identify priorities for action .
2. 2 How/who will help to work on taking priorities forward.
3. 3Action plan with cleat timing and responsibility's and priorities.
4. 4 Support quality and continues improvement utilising a strong evidences base.

Development and evaluation of effectiveness of nursing quality assurance guideline for hospitals under the Ministry of Public Health

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Background

Nursing Division, Ministry of Public Health which responsible for setting quality assurance system for hospitals under the Ministry of Public Health in Thailand. The survey found that many hospitals work with their experience, relay by generation, but have no quality assurance system about 60 – 70 %, Although it make good quality of work, but it could not to be a role model for the other. So quality assurance system was the way to improve quality of nursing service , preventing clinical risks and made all patients' satisfaction. The Objective is to Studying problems situation and setting system for the development of an internal quality assurance system and Evaluation effectiveness of quality assurance system

Methods

The study consists of 4 period 1)The development period: Define and criticize quality assurance system by 7 Nursing-Experts, preceded in 2012. 2)The trial period: Trial in 116 hospitals . Before the trail. Preparing by Academic Conference, attended by 116 Nurses. After that evaluation by Randomized in 24 hospitals. 3)The expansion period: The quality assurance system was adopted in 896 hospitals in the year 2013. And presented to 896 nurses who responsible in quality development. In addition, the reports were reviewed by 116 nurses, in 896 hospitals for patients'safety. And 4)The evaluation period: was based on 1) the quality of nursing care for 896 patients in 3 years, and 2) the knowledge, opinions and satisfaction of the 896 nurses. The Instruments were the evaluation form and the questionnaires. Its reliability was verified by calculation of Cronbach' Alpha Coeficient ($= 0.96$). The process study data were collected between 2013 and 2016

Outcome

The findings were as follows:1). The quality assurance system consisted of 7 categories. Category 1 was leadership, Category 2 was Strategic Planning, Category 3 was Patient, Stakeholder and service Focus, Category 4 was Information and Analysis, Category 5 was Faculty and Staff Focus, Category 6 was Process Management, and Category 7 was Organizational Performance Results. 2)The results of the evaluation of the effectiveness of The quality assurance system found that : 1) The results of quality assessment of nursing care for patients safety in 3 years (2014-2016) was at good level ($\bar{x} =$) and the trends were significantly higher at .05 level. 2) Knowledge, opinions and satisfaction of nurses in quality work were at highest level, 90.55 %, 87.55%, 92.87% respectively

Conclusion

Applying the quality assurance system to the hospitals under the Ministry of Public Health resulted in nurses providing standardized services. So Patients would receive safety services.

Medical device development through co-design: meeting patient and clinical needs

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Background

Recessive Dystrophic Epidermolysis Bullosa (RDEB) is a rare genetic skin disorder which requires intensive hand therapy to delay fusion of the fingers. Existing dressings do not conform to the complex structure of the hand and are applied in patches held with additional bandages leading to an occlusive environment. Monitoring clinical outcomes for this patient group is difficult as existing measures lack sensitivity and specificity when applied to sub groups (such as RDEB). This poses a challenge for evaluating the performance of medical devices and the treatment of hand deformities in this group. We aimed to co-design a dressing glove and splint glove based on user experiences and needs; develop and validate patient recorded outcome measures for RDEB as part of a hand therapy online (HTO) system and proof-of-concept test the clinical performance and cost effectiveness of the dressing glove when compared with conventional dressings using the HTO system.

Methods

The project adopted a model of user engagement with engineers, software developers, manufacturers and designers; enabling medical device development that is grounded in patient, carer and clinician needs. Qualitative interviews and focus groups with children and adults with Recessive Dystrophic Epidermolysis Bullosa and their carers were conducted. User needs, design cues and outcome measures were developed from themes generated through inductive thematic analysis. Iterative feedback of design cues, bench and surrogate testing of materials and prototype refinement were achieved through collaborative co-design. The outcome measures were reviewed and piloted by patients, carers and clinicians. Patients and carers were trained by researchers in completing the hand therapy online outcome measures. Proof of concept tests of the dressing glove were conducted with patients and carers for between 19 and 36 weeks using an n-of 1 study design.

Outcome

Focus groups were conducted with six children and their parents and interviews were held with seven adults. Eight user needs and corresponding design cues were generated addressing issues of absorbency, adherence, comfort, adaptability, ease of application and removal, breathability, protection, and hand hygiene. One dressing glove prototype was selected for proof of concept testing. Fourteen patient recorded outcome measures were developed, piloted and used in the testing phase to record: experience of wearing and changing dressings, hand skin condition, hand function and hand pain. Three of the four patients in the test phase reported an improvement in their experience of wearing and changing dressings. All four patients reported an improvement in their hand skin condition and hand function was improved for two patients. Patient feedback indicates that a thicker viscose could improve absorption and provide more protection. A full cost consequence analysis is being conducted.

Conclusion

Wound management is pivotal to long term outcomes in EB. We hypothesise that if the development of hand therapy

devices is guided by a model of user engagement we may be able to produce a dressing glove (and compatible splint glove) that meets user needs. This may improve user engagement with hand therapy and delay disease progression. The Hand Therapy Online system of patient recorded outcome measurement has the potential to improve efficiency of data capture for future research, post market surveillance of treatments and can be used as a clinical assessment tool in practice networking geographically dispersed patients to real time clinical care. This may enhance clinician/patient communication and facilitate self-management of EB and other long term chronic conditions. We are planning a pilot implementation of the HTO system to evaluate its impact on delivering care for this patient group. A prototype splint glove has also been developed and will be proof of concept tested.

Trend of Emergency Room cases of a rural Regional Hospital in 3 consecutive years, focus on DAMA analysis

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Background

To investigate the percentage of Discharge against Medical Advice (DAMA) in Emergency Room (ER) and its contributing factors of a rural Regional hospital.

Methods

84,230 cases were collected from ER of a rural Regional Hospital (about 370 beds) within the period 2014 July to 2017 June. Total DAMA cases are 2,875, with 423 Out of Hospital Cardiac Arrest (OHCA) excluded.

Outcome

The 83,807 cases enrolled were analysed according to a) age, b) visitors or local residents, c) triage grading, d) weekdays or weekend, e) diagnoses (injuries or non injuries) and f) length of stay (LOS). The trend of disposal will be presented.

The descriptive data shows that trend of ER DAMA was increasing, the DAMA rate is 3.47% (fig 1). Generally, total population mean age is 41.4 years (fig 2). Non-visitors, non-injuries are more than visitors and injuries (fig 3, fig 4). The triage grading shows that grading 3 is higher than others (fig 5). About 40% people came to ER at weekend. Average LOS is 143 minutes (75 percentile is 175.3 mins).

Several factors to DAMA were found to be related: Visitors > non visitors, Elder > Adult > Child, triage grading 1 and 2 > triage grading 3~5, Longer LOS (>175.3 mins) > shorter LOS.

Conclusion

Visitors, elderly, longer LOS and those with relatively serious disease had higher DAMA rate in this study. These people also had higher 72hr-ER return rate.

A new model for integrated care: the experience of Regione Lombardia

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Background

Regione Lombardia has a population of just over 10 million inhabitants, distributed over an area of approximately 24,000 square km. The Lombardia Health System (LHS) forms an intrinsic part of the nation-wide system, well known for the universalistic model. There are over 200 public and private accredited hospitals and 18 research hospitals (IRCCS). The LHS employs approximately 130,000 skilled healthcare workers, including 30,000 specialist physicians and 8,000 General Practitioners and Paediatricians. The demographic structure of the population is mainly characterized by a gradual increase in life expectancy but also by an inevitable increase of chronic diseases, in a context of economic/financial crisis where, with decreasing availability of resources, the demand for long-term health increases. To address the impact of multimorbidity and chronic care a new model of care was introduced with Regional Law N 23/2015, based on an experimental project named Chronic Related Groups (CReG).

Methods

The recent redesign of healthcare system, launched in January 2018, is centred on planned care for chronic patients resulting from a multidimensional evaluation of health and social needs of the patients and based on interprofessional teams, including general practitioner, consultant, pharmacist, nurse, social worker. The project CReG was performed by Regione Lombardia from 2012 to December 2017. A cohort of about 160,000 patients affected by one or more chronic illnesses, mainly chronic obstructive pulmonary disease (COPD), heart failure, type 2 diabetes, hypertension, hypercholesterolemia, were enrolled by General Practitioners (GP), according to a planned care program. A difference in difference (DID) analysis, aimed to estimate the effect of an intervention on the enrolled vs. not enrolled patients. Emergency Room (ER) admissions, hospital admissions, drug expenditures, outpatient services admissions were the main variables considered in two groups of chronic patients.

Outcome

Over a 5-year period about 160,000 chronic patients were enrolled by GP in CReG project. Difference in Difference (DID) Analysis was performed on a cohort of 61,567 patients affected by one or more chronic conditions, such as COPD, heart failure, type 2 diabetes, hypertension, hypercholesterolemia. The results showed findings consistent with a significant reduction of ER admissions (DID= -0.343) and hospital admissions (DID= -0.232), and with an increase of drug expenditures (DID= 0.0239) and outpatient services use (DID= 0.0407). A more detailed survey on customer satisfaction is ongoing. These findings outlined the more appropriate use of hospital services that are related to an increase of outpatient ones, and therefore the importance of co-ordinated and integrated health care, through a planned program tailored to the single patient. Of great relevance are the organizational aspects, including teamwork, new competences and skills of professionals in delivering care.

Conclusion

A crucial point is care coordination that involves organizing patient care activities and sharing information among all of the participants concerned with a patient's care to achieve safer and more effective care. Our experience confirms the validity of an approach based on teamwork, care and care management, health information technology, patient-centered care. The study showed significant results in terms of more appropriate use of health services. Significant benefits in terms of reduction of ER admissions and hospital admissions were observed also if care planning policy concerned mono/bi-pathologic chronic conditions, such as hypertension (RR = 0.92, 95%IC) and hypercholesterolemia (RR=0.93, 95%IC), according to Poisson an. These findings strenghten the conviction that early case management of chronic conditions plays a vital role in preventing more severe clinical conditions in the patient history.

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Implementation of the National Scottish Patient Safety Programme (SPSP) Deteriorating Patient Initiative at a UK District General Hospital (DGH) and Exploration of Factors for Translation to a Rural DGH in Zambia.

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Background

In May 2017, the Royal College of Physicians and Surgeons in Glasgow produced a report on the benefits of Global Citizenship highlighting that international volunteering has an under-recognised positive impact for healthcare services abroad and in the UK.

Throughout 2017 we carried out the Scottish National Safety Programme (SNSP) Deteriorating Patient audit at the UK district general hospital Inverclyde Royal Hospital (IRH) to improve the recognition and early intervention for deteriorating patients potentially requiring HDU level care.

We then sought to investigate applicability in a developing nation DGH at Chitokoloki Mission Hospital (CMH), Zambia.

Methods

Recognition of patient deterioration through a score based on vital sign observations forms the basis of the SNSP initiative. Through 2017 we audited surgical dept. staff responses at IRH to the National Early Warning Score (NEWS) of 5 and above that should have triggered documentation & implementation of government guidelines.

Weekly scrutiny of case records over the initial 3-month period identified documentation of acutely-emergent and contextual health issues (67-100%), frequency of observations (39-75%), resuscitation decisions and escalation plans (28-55%), and esemplastic documentation of all of the aforementioned. Data were submitted monthly to the SNSP national database.

Outcome

Documentation of emergent clinical issues and management plans was consistently above 80% in subsequent audit cycles.

Specification of the frequency of repeat observations fell back to 21%, 54% and 31% respectively in subsequent cycles.

Documentation of resuscitation status or alternative ceiling also decreased to less than 30% in subsequent cycles.

Although trigger stickers were used by all staff following intervention talks & demonstrations attrition of use occurred following medical staff turnover.

Conclusion

Engagement with SNSP deteriorating patient initiative guidelines fell following staff turn-over emphasising the importance of repeated exposure to the education intervention to ensure continuing progress.

Since the NEWS-based process is simple and of negligible cost to practice we sought to explore its use in a resource-poor setting with low staff turn-over at CMH, Zambia.

From experiences we identified recurrent occasions where abnormal vital sign observations in clinically deteriorating patients were documented but not escalated appropriately or in some instances at all. This led to critical incidents which could have been prevented by implementing clearer observation charts with NEWS-based guidance on effective escalation. Presentation of our findings at CMH hospital were met with initial scepticism and belief that a scoring system would negate clinical intuition.

This comparative experience deepened our appreciation for the SNPS objectives at home.

A new attempt of Crew Resource Management (CRM) training (from Program Executive's perspective): Department-based training for Finance Services Division of a Hong Kong hospital

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Background

Hong Kong East Cluster Training Centre for Healthcare Management & Clinical Technology (HKECTC) in Pamela Youde Nethersole Eastern Hospital (PYNEH) has been implementing Crew Resource Management (CRM) training for healthcare teams since 2009. CRM training aims to foster safety culture for reliable patient service and promote team performance. HKECTC co-developed and delivered the 1st FSD CRM program with HKEC Finance Services Division (FSD) in 2017.

FSD is an essential management partner to HKEC Management and Clinical Departments, they advise HKEC on finance-related matters, and hold a gatekeeping role. It is vital for FSD in upholding highly reliable accounting service to minimize risks and human factors while there are increasing complexity in accounting policies and guidelines, complicated procedures in daily operation.

In light of CRM training's success, FSD approached HKECTC to arrange training for its staff to enhance situational awareness, teamwork and communication.

Methods

CRM Program Executive and FSD Management discussed training expectations and requirements in Jun 16. FSD Management was introduced learning approach and training materials of CRM training as well as its limitations. To facilitate better understanding, FSD Management was invited to join CRM Program with clinical staff.

Proposal for FSD CRM Program was made to CRM Program Directors with justification of boost team synergy in HKEC by equipping FSD staff with CRM skills (i.e. teamwork, communication, situation awareness, leadership, etc.); obstacles of relevance in training materials and trainers' background were also highlighted.

Meetings with CRM Program Directors, Program Executive and FSD Management kicked off in July 2016. FSD was invited to co-develop the program by providing specific training materials related to FSD operations such as scenarios for case discussion. 6 FSD managers were nominated as faculty to co-deliver the program with CRM trainers from clinical teams.

Outcome

Despite members' diversified background (i.e. Clinical, Administrative, and Finance), effective teamwork and communication had been derived from proactive participation and selflessness in sharing of resources. Delineation of

roles, selection of training materials and logistic planning had been meticulously designed. 3 FSD CRM Programs to 100 staff were successfully delivered.

With effective communication and teamwork amongst faculty, briefing and debriefing were conducted smoothly before and after each program which enabled improvement such as better engagement with different participant mix. FSD CRM Programs were well-received, participants agreed relevance in program content and CRM skills were applicable in daily work. Such response inspired FSD's planning of refresher programs to sustain the learning outcome.

The success of program implementation has reciprocity in outreaching CRM program and strengthening teamwork and intra- and inter-departmental communication in HKEC.

Conclusion

From Program Executive's perspective, the idea of FSD CRM Program first appeared to be unfeasible. When revisited the program objectives, and most importantly, consider HKEC as a team, the FSD CRM program is significant. Although there were hurdles over the entire process, proactive communication with situational awareness and assertiveness greatly helped to overcome these hurdles. Open-minded leadership of CRM Program Directors, FSD management and HKEC TC management had greatly contributed to the success of FSD CRM Program.

6 Essential Actions to Improve Unscheduled Care

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Background

In NHSScotland the Emergency Access Standard is seen as the barometer of the whole system and as such requires a whole system approach to improving patient and staff experience of Unscheduled Care. This measures how many patients, in all trolley areas, of the Emergency Department and acute assessment Units are admitted, discharged or transferred within 4 hours. Scottish Government launched a national improvement programme in, May 2015, based on 6 Essential Actions to improve unscheduled care. to deliver a target of 95% working towards the standard of 98%. All Territorial Health Boards and acute core sites were included in the programme and local improvement delivery teams were established.

Methods

A national collaborative approach was taken to support local teams to identify the challenges they were facing, agree priorities and deliver improvements against a national target. Key to developing a whole system approach is clear and empowered leadership to set a vision and be responsive to changing needs of the service; appropriate data and information on capacity and demand and opportunity to realign where appropriate; managing patient through the system with focus on early planning for home; optimal medical and surgical processes focussed on care at the right time, by the right person, in the right place; reducing variation across 7 days to ensure early access to services to optimise the patient journey and minimise delays, ultimately ensuring patients are cared for at home by reducing need for attendance to acute care, shifting unplanned to planned, reducing admissions where possible and ensuring home when ready.

Outcome

The Whole System Collaborative Approach has been very successful in building capacity and capability with local teams to improve patients and staff experience across Unscheduled Care. Most notable is the resilience and year round planning of anticipated pressures for reduced services across 4 day public holidays at Christmas, New Year and Easter as well as increased winter pressures. Whole system planning and agreed responses has successfully improved performance and is reducing impact with quicker recovery and resilience. Focus on the discharge planning process and early management plans has improved Emergency Department crowding and minimised exit block.

Benefits notes are: Scotland's core site performance has been leading across the UK for 35 consecutive months; we have reduced long waits of over 8 and 12 hours by 50%, the percentage of patients who are in acute wards who no longer requiring ongoing acute care has reduced and overall patient and staff experience has improved.

Conclusion

The Emergency Access Standard was generally thought to be the responsibility of the Emergency team and a measure of front door performance however the 6EA improvement programme has developed a whole system solution to the problem with engagement across primary and secondary care, all support services and organisations, and the newly established Health and Social Care Integrated Partnerships. The elements of the 6 Essential Actions make sense to clinicians and managers alike and supports their ownership of patient care pathways to improve safety and experience. Focus on the discharge process engages clinicians to ensure patient are admitted to the right ward, minimising boarding and reduces length of stay. This reduces exit block and allows Emergency Department teams the time and space

needed to make the right decisions for patients and effective redirection and signposting ensures only those with an urgent or emergency attend the emergency department.

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A New Organizational Model for Preventing Inpatient Falls Using a Computerized Control System

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Background

Background: Medical administrators continue to be challenged by the goal of providing safe and qualitative care to all patients. To the constant demand for care improvement and quality assurance in accordance with high standards expectations of safe care have been added. Despite efforts, the high incidence of patient's falls in a hospital setting remains unresolved.

Systemic review of the literature on fall prevention in hospitals has found no consistent evidence regarding the effectiveness of single or multiple interventions to prevent falls. Research on the prevention of inpatient falls has largely focused on two main areas: (1) Patient risk factors related to inpatients falls and (2) Interventions (fall risk assessment, armbands, medication review and use of physical restraints) to reduce falls in hospitals. Findings nonetheless show that inpatient falls cannot be resolved by any one measure.

Methods

Purpose: To assess introduction of a new organizational model for reducing rates of inpatient falls based on a computerized control system operating in three essential spheres

Outcome

Intervention: The intervention was introduced in 2013 in a Sheba Medical Center (1,500 beds, 120 wards, 2,500 nurses) located in Israel within the framework of the International Joint Commission for Hospital Accreditation. Nursing Management planned a model and defined policy as part of the hospital's annual work plan. Implementation of the model was driven by A Nurse Fall Prevention Specialist, from Nursing Management, and a "champion nurse", one from each department, who regularly interact. The program applies an interdisciplinary approach. All the activity was introduced with the collaboration of the Quality and Safety Committee that includes a risk management committee and a multi-professional specialist board. The intervention program was implemented in three spheres.

Conclusion

Measurement of improvement: Assessment of the project's implementation indicated attainment of the goals set: During the first three quarters of 2015, there was a 20% reduction of reported falls when compared with the equivalent period in 2014.

Conclusion: This model for the promotion and improvement of patient care by means of a computerized control system was shown to be effective in assisting decision-making in other areas of care as well, such as prevention of bedsores and pain reduction. Pivotal aspects of the program and its implementation will be discussed further during the presentation.

Still failing deteriorating patients? Let's measure your hospital's system!

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Background

"Rapid response systems (RRSs) are one of the first organisation-wide, patient-focused systems to be developed since 1995 to prevent potentially avoidable deaths and serious adverse events such as cardiac arrests." (Ken Hillman 2014 MJA) Inspired by Maureen Bisognano's questions (Do you know how good you are? How do you perform compared to the best? Where is the variation ? Do you improve ?) this poster focusses on Rapid Response Systems (RRSs). Preventing Cardiac Arrests seems straight forward, but what else can patients expect from this expensive intervention? Can we measure performance across complex systems? Are we fair to young and old patients? And can we compare our work with that of the neighbouring hospital? We set up the international Benchmarking audit 'Medical Emergency Teams, Hospital Outcomes in a Day' Study (METHOD) in 2014. In 2016 we have repeated the study.

Methods

RRTs from around the world were invited to take part in an international service evaluation. In the multi-national prospective observational cohort study in 2014, centers with existing RRTs collected data over a seven day period, with follow up of all patients at 24 hours following their RRT call. Investigators also collected data concerning the triggers and interventions provided.

In the 2016 study we additionally collected data, with follow up of all patients at discharge or 30 days following the event triggers (whichever came sooner); moreover we collected a bedside assessment on the level of patient's frailty using a Clinical Frailty Scale.

Outcome

In a 2014 study, results described 1188 RRT activations from 51 hospitals in 5 countries; 24% of patients were admitted to the ICU, 10% died, and 25% had new limitations in therapy implemented.

In a 2016 study, results described 1133 RRT activations from 43 hospitals in 8 countries. Results showed it is feasible for clinicians to assess clinical frailty score of a patient at the time of an RRT call. Also, higher frailty scores were associated with increased mortality and dependency on formal care services at 30 days.

Conclusion

- A proposed template can be helpful for benchmarking (inter)national RRSs
- Consider the importance of clinical frailty in relation to outcomes



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