

IMPLEMENTATION OF THE WHO SAFE SURGERY CHECKLIST IN TUNISIA: *FOLLOWED STEPS & LEARNED LESSONS*

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RATIONALE

Actually in the world surgery has become an integral part of global health care and an essential component of health care worldwide [1]. As the incidences of traumatic injuries, cancers and cardiovascular disease continue to raise, the impact of surgical intervention on public health systems will grow. While surgical procedures are intended to save lives, unsafe surgical care can cause substantial harm, thus surgery must be sure [2].

In 2008, the World Health Organization and the World Alliance for Patient Safety developed the “Safe Surgery Saves Lives” initiative. The aim of this initiative is to harness political commitment and clinical will to address important safety issues, including inadequate anesthetic safety practices, avoidable surgical infection and poor communication among team members [3].

The goal of the Safe Surgery Saves Lives Challenge is to improve the safety of surgical care around the world by ensuring adherence to proven standards of care in all countries. The WHO “*Surgical Safety Checklist*” (above) has improved compliance with standards and decreased complications from surgery in eight pilot hospitals where was evaluated. This Checklist is intended to be nearly universally applicable, useful in all environments and types of surgery [4, 5].

ASSESSMENT OF THE PROBLEM

In our local level in Tunisia we conducted a study of adverse events in a University Hospital using a retrospective medical record review. In fact all clinical departments (N=18) in this University Hospital take part in the study. Results show that adverse events rate was around 10% and Surgical and invasive procedures were the most identified adverse events (55%).

With agreement of the Ministry of Public Health we introduced the “safe surgery checklist” in the pediatric surgery department of the University Hospital of Monastir.

STRATEGY FOR CHANGE

In order to implement the Safe Surgery Checklist a multi professional meeting was organized. We started with implementing it in the operating rooms of the Pediatric surgery department. Results of this first step will be a motivation for others teams in order to implement the Safe Surgery Checklist. To achieve this goal, we conducted the following three phases:

Phase I: The preparing phase,

This first phase was led to get team engagement to introduce the Checklist in one operating room. Several meeting were organized with the team in order to discuss about the Checklist and then involved in its translation and customization to our environment [6]. The Checklist was then introduced in one operating room on a voluntary basis.

A video film was developed by the team in order to ensure better understanding of the Checklist administration. The video was performed by volunteer’s member of the Pediatric Surgery Department.

In this preparing phase the working team designates a responsible for checking the boxes on the list. This designated Checklist coordinator is a circulating nurse in our case.

Phase II: Assessment phase,

In the second phase we defined indicators that will be used in the monitoring of the performance of the checklist.

After that we started the use of the safe surgery checklist in the designated department. This phase was mainly focuses at receiving regular feedback about the ongoing process of the Checklist as well as obstacles that may interfere with its use in the field.

Phase III: Sustainability phase

- Involving additional teams in the idea of the Checklist use in surgery
- Identifying process and outcomes indicators to assess the impact of the Checklist use

- Integrate the use of the Checklist as a WHO solution in the Patient Safety Friendly Hospital Initiative Certification process.

MEASUREMENT OF IMPROVEMENT

We proposed a global evaluation of the implementation of the safe surgery checklist and specially:

- The rate of antibioprohylaxis prescriptions
- The number of dysfunctional operation table
- Improvement of the communication of critical situations

EFFECTS OF CHANGES

6 months after the implementation of the “Safe Surgery Checklist” we noted:

- In the first phase of Safe surgery Checklist implementation some members of the surgical and anesthesia teams were not comfortable. With practice they understood that the Checklist was found to assist operating team and to minimize unnecessary complications.
- The assessment of the total sample of completed Checklist (385 in total), showed that there is an improvement in administrating ATB. In fact antibioprohylaxis prescriptions rise from 25% to 39%.
- Equipment failure report was more documented and then repaired. We found a reduction in the number of dysfunctional operation table from 22% in the start with the Checklist to 0% actually
- Anesthesia team was more interested in the review of medical records to find patient history and co-morbidities especially those related to allergy.
- Anesthesia team does not proceed to anesthesia induction before ensuring the availability of the surgeon
- Before the use of the Checklist, the surgical team is waiting for the blood loss during surgery to act. Six months after the introduction of this list blood loss is always anticipated and a blood reserve was systematically done before any risky intervention.

- After introducing the safe surgery Checklist we showed an improvement in the communication of patient's critical events and failure. In fact, communication of critical situations to the post operative monitoring team rises from 50% to 100% in our context.
- Actually surgical team is currently asking confirmation that the surgery team has the correct patient for the correct operation and in the correct site. A special interest was found for twins in order to ensure the side for each of them.

LESSONS LEARNT

- Measures to improve surgical safety require involvement of the entire team. Each of whom plays a role in ensuring the safety and success of an operation.
- A serious leadership is crucial to start with the checklist
- Surgical teams should be confident that the checklist is not intended to duplicate the usual work. But to reinforce accepted safety practices and foster better communication and teamwork between clinical disciplines.

MESSAGE FOR OTHERS

- After the implementation of the safe surgery checklist, the most important was to sustain its use
- Continue the assessment of the checklist, trend of indicators that we would like to define with the team
- At the national level starting with the documentation of the checklist impact in our context (developing research protocol, agree on a set of indicators)

REFERENCES

- 1- **Haynes AB, Weiser TG, Berry WR, Lipsitz SR, Breizat AH, Dellinger EP et al.** A surgical safety checklist to reduce morbidity and mortality in a global population. *N Engl J Med.* 2009 Jan 29;360(5):491-9.
- 2- **Jhanji S, Pearse RM.** The use of early intervention to prevent postoperative complications. *Curr Opin Crit Care.* 2009 Aug;15(4):349-54.
- 3- **World Health Organization.** Safe Surgery Saves Lives WHO Guidelines for Safe Surgery 2009. http://whqlibdoc.who.int/publications/2009/9789241598552_eng.pdf
- 4- **Vats A, Vincent CA, Nagpal K, Davies RW, Darzi A, Moorthy K.** Practical challenges of introducing WHO surgical checklist: UK pilot experience. *BMJ.* 2010 Jan 13;340:b5433.
- 5- **Birkmeyer JD, Miller DC.** Surgery: can checklists improve surgical outcomes? *Nat Rev Urol.* 2009 May;6(5):245-6.
- 6- **Kate Hancorn, Stephen Blair.** Checklist culture. WHO needs changing. *BMJ* 2010;340:c909