Genootschap Gepersonaliseerde Zorg

Integrate to personalise health care

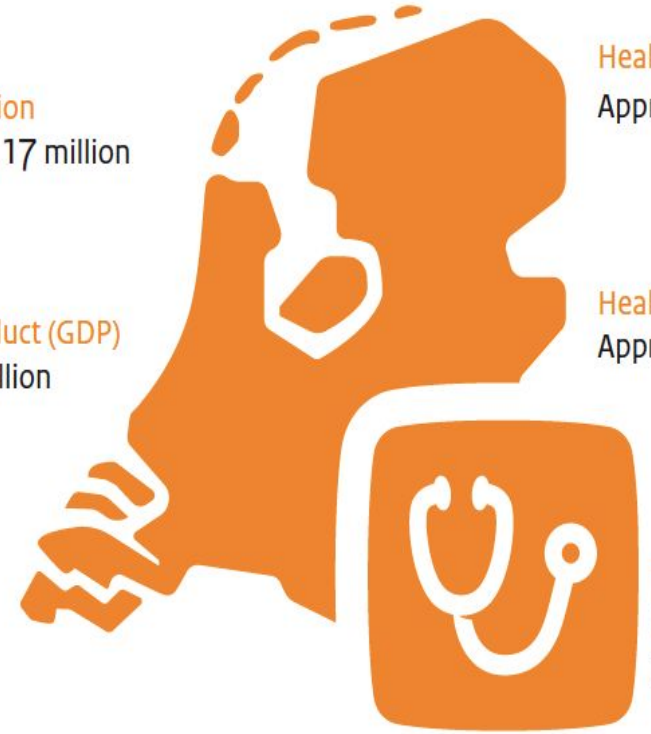
Integration of health services to address personal needs, preferences and values

Nico van Weert PhD & Ralph So MD

The presenters have no conflicts of interest to declare.

The facts

Healthcare in the Netherlands



Population
Approx. 17 million

Gross Domestic Product (GDP)
Approx. EUR 700 billion

Healthcare expenditure in EUR
Approx. EUR 70 billion

Healthcare expenditure
Approx. 10% of GDP

Total number of people employed in the healthcare field
Roughly 1,1 million

The Fun facts

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- Highest population density in Europe
- The Dutch are in the top 5 of the happiest people in the world
- Schiphol national airport is 4.5 meters below sea level
- There are twice as many bicycles as cars
- There are 1180 windmills
- Tallest people in the world

Quality of Care

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Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with evidence-based professional knowledge.

Quality health services should be: effective; safe; people-centred; timely; equitable; integrated; and efficient

World Health Organization

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Consensus Statement

September 16, 1998

The Urgent Need to Improve Health Care Quality

Institute of Medicine National Roundtable on Health Care Quality

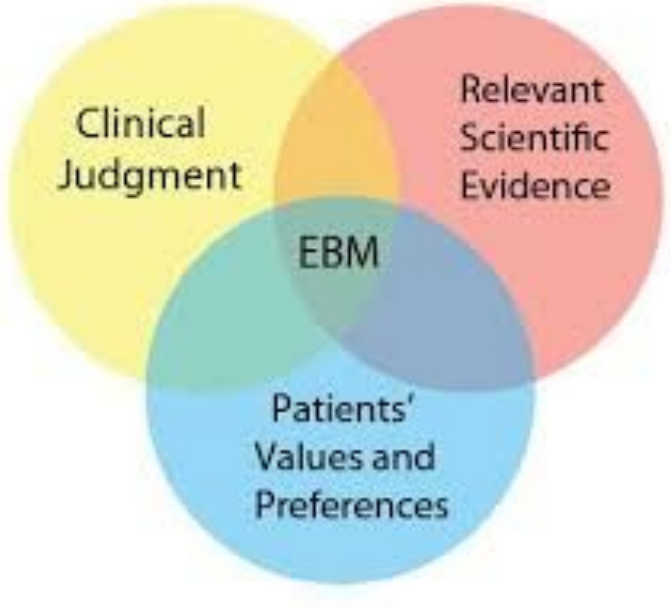
Mark R. Chassin, MD, MPP, MPH; Robert W. Galvin; and the National Roundtable on Health Care Quality

Poor-quality care comes in three categories: "overuse, underuse and misuse"

Objective.— To identify issues related to the quality of health care in the United States, including its measurement, assessment, and improvement, requiring action by health care professionals or other constituencies in the public or private sectors.

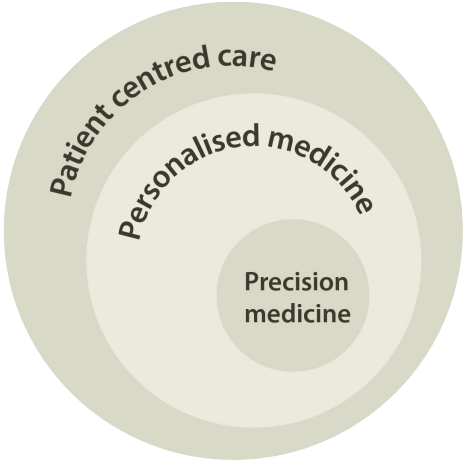
Participants.— The National Roundtable on Health Care Quality, convened by the Institute of Medicine, a component of the National Academy of Sciences, comprised 20 representatives of the private and public sectors, practicing medicine and nursing, representing academia, business, consumer advocacy, and the health media, and including the heads of federal health programs. The roundtable met 6 times between February 1996 and January 1998. It explored ongoing, rapid changes in health care and the implications of these changes for the quality of

Evidence based medicine: what it is and what it isn’t



Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. BMJ. 1996 Jan 13;312(7023):71-2.

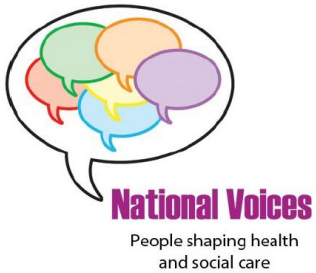
Personalised medical care



"The clinician's job is therefore to relate this evidence to the unique clinical condition of the patient and to create a context in which the patient can be allowed to reflect on their values, the values they attach to different options that may occur, both good and bad, and the value they place on risk-taking or risk avoidance."

Gray M, Gray J, Howick J. Personalised healthcare and population healthcare. J R Soc Med. 2018 Feb;111(2):51-56.

Integrative care



"I can plan my care

with people who work together

to understand me and my carer(s),

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to achieve the outcomes important to me."

National Voices, *A narrative for person-centred coordinated care (2013),* NHS England; www.england.nhs.uk/wp-content/uploads/2013/05/nv-narrative-cc.pdf

WHO: A user-led definition that supports a defining narrative and purpose for integrated care strategies at all levels of the system.


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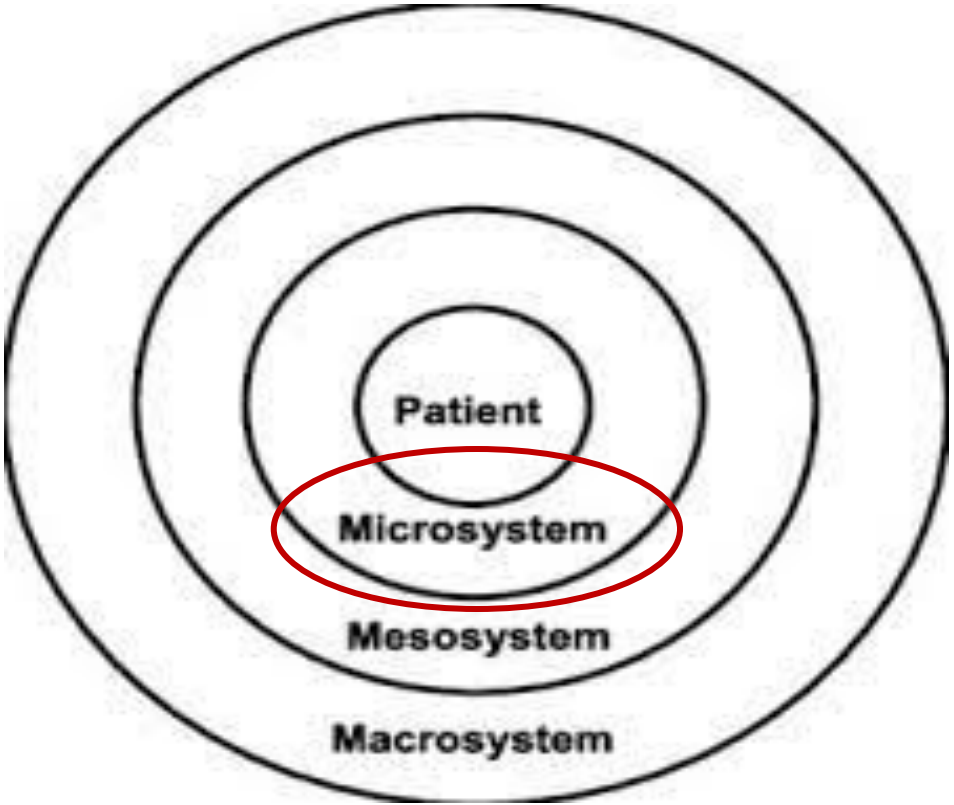

"The Place where Patients, Families and Clinical Teams meet ……

It's where everything happens with, for and to the patient and family"

EC Nelson, MM Godfrey, PB Batalden, SA Berry, AE Bothe, KE McKinley, CN. Melin, SE Muething, LG Moore, TW Nolan, JH Wasson (2008) Clinical Microsystems, Part 1. The Building Blocks of Health Systems, The Joint Commission Journal on Quality and Patient Safety, Volume 34, Issue 7, pages 367-378

Take home messages

- Personalised care is the way to go
- Integration of health services helps, however context matters
- Especially via
  - Team performance, co-production with the patient
  - Availability of relevant information
  - Team reflection about what matters to the patient

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Oncology patients 70+ years of age

Personalized Care for **Oncology patients 70+ years of age**

Observation

A recently discharged patient appeared to be deceased
in a nursing home, having had a continuously poor quality of life
ever since surgery

Barbara van Leeuwen MD, PhD, Suzanne Festen MD, PhD, Hanneke van der Wal, RN, MSc

Oncology patients 70+ years of age

Redesign Care Pathway

Outpatient nurse-led geriatric assessment (fysical, psychological, functional, social)

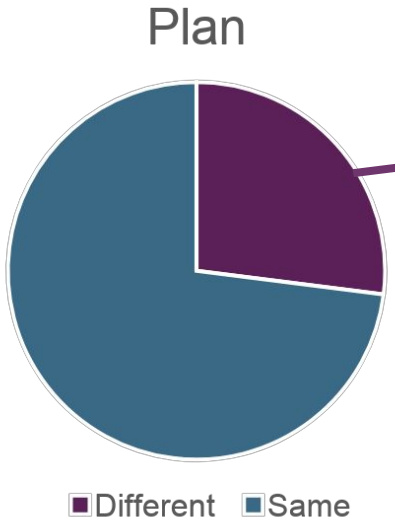
Extensive conversation about one's individual treatment goals

>

Onco-geriatric multidisciplinary team considers what treatment suits best to the situation of the patient (stepwise dialogue)

Oncology patients 70+ years of age

Results



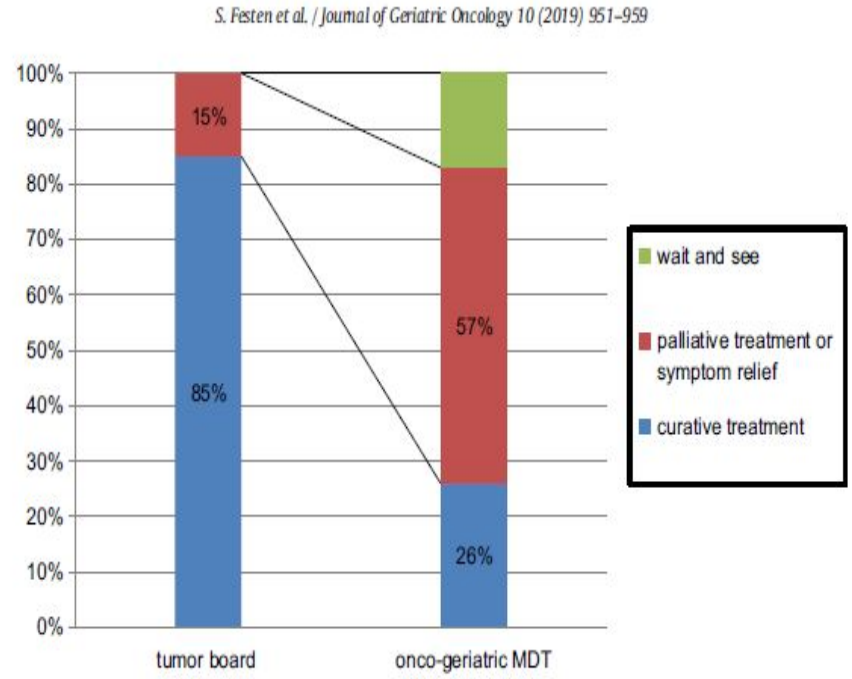


Fig. 5. Change of oncological treatment advice between tumor board and onco-geriatric multidisciplinary team (onco-geriatric MDT) in the modified group (N = 54).

"No support of undertreatment."

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A well integrated onco-geriatric multidisciplinary team

considering the complete health status and treatment goals of the patient

prevents unbeneficial surgical interventions

References

Festen S, Kok M, Hopstaken JS, van der Wal-Huisman H, van der Leest A, Reyners AKL, de Bock GH, de Graeff P, van Leeuwen BL. *How to incorporate geriatric assessment in clinical decision-making for older patients with cancer. An implementation study.* J Geriatr Oncol. 2019 Nov;10(6):951-959.

Festen S, van der Wal-Huisman H, van der Leest AHD, Reyners AKL, de Bock GH, de Graeff P, van Leeuwen BL. *The effect of treatment modifications by an onco-geriatric MDT on one-year mortality, days spent at home and postoperative complications*. J Geriatr Oncol. 2021 Jun;12(5):779-785.

Overview of key elements

	Onco 70+
Team	In-hospital multi-disciplinary team
Information	Face to face assessment
Care Pathway	Consideration of outcome that matters to the patient

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Abdominal surgery patients

Observation

The degree of recovery and returning to work after minimally invasive surgery did not meet the high expectations

Abdominal surgery patients

Redesign Care Pathway

Personalised e-health-care programme including

- Recovery advice based on a personalised recovery plan
- Monitoring and giving feedback on recovery
- E-consult

in stead of ad hoc advice by many

Creating recovery expectations

Reducing uncertainties

Increasing access to care

Abdominal surgery patients

Results

Median return to normal activities
(26 -> 21 days) **

Physical function*

Social participation*

** p < .01 * p < .05

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Coherent personalised **advice** and cues **accelerate** rehabilitation after surgery

Abdominal surgery patients

References

Huirne J, Bouwsma E, Anema H. *E-Health Application IkHerstel: A Textbook Example of Value-Based Care*. In: Personalized Specialty Care - Value-Based Healthcare Frontrunners from the Netherlands. Springer; 2021.

Bouwsma EVA, Huirne JAF, van de Ven PM, Vonk Noordegraaf A, Schaafsma FG, Schraffordt Koops SE, van Kesteren PJM, Brölmann HAM, Anema JR. *Effectiveness of an internet-based perioperative care programme to enhance postoperative recovery in gynaecological patients: cluster controlled trial with randomised stepped-wedge implementation*. BMJ Open, 2018 Jan 30;8(1):e017781. doi: 10.1136/bmjopen-2017-017781. PMID: 29382673; PMCID: PMC5829654.

van der Meij E, Anema JR, Leclercq WKG, et al. *Personalised perioperative care by e-health after intermediate-grade abdominal surgery: a multicentre, single-blind, randomised, placebo-controlled trial*. Lancet, 2018;392(10141):51-59. doi:10.1016/S0140-6736(18)31113-9

Overview of key elements

	Onco 70+	IkHerstel
Team	In-hospital multi-disciplinary team	+ Patient participates in the team
Information	Face to face assessment	Advice in an app
Care Pathway	Consideration of outcome that matters to the patient	Tailor advice to patient's situation

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Patients with Inflammatory Bowel Disease

Patients with Inflammatory Bowel Disease

Observation

Outpatient visits tend to be **too soon** or **too late**

for optimally effective treatment

Marieke Pierik MD, PhD,
Tineke Markus-
de Kwaadsteniet

Patients with Inflammatory Bowel Disease

Redesign Care Pathway with MyIBDcoach™

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A symptom-based PROM

to be completed in a varying frequency
(from 3 times a week to once in 3 months)

E-learning modules

A personal care plan

Raises red flags

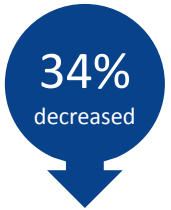
when predefined thresholds
are exceeded

Care is scheduled when needed
most to prevent outbursts of the
disease
or to kill flares in the early stage

Patients with Inflammatory Bowel Disease

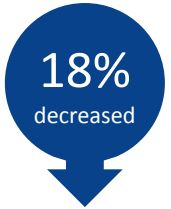
Results

Outpatient visits to gastroenterologist
a/o nurse



1.55 vs 2.34 a year

Teleconsult GE
a/o nurse



1.28 vs 1.57 a year

Hospital admissions
were reduced

5 vs 10 out of hundred a year

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Understanding **current needs** makes care for chronically ill patients

more effective

References

Pierik MJ, Markus-de Kwaadsteniet MLT, Dijkstra G. *SMART-IBD: Better Health Care from the Patient's Perspective*. In: Personalized Specialty Care. Springer; 2021:87-93. doi:10.1007/978-3-030-63746-0_12

de Jong MJ, van der Meulen-de Jong AE, Romberg-Camps MJ, Becx MC, Maljaars JP, Cilissen M, van Bodegraven AA, Mahmmod N, Markus T, Hameeteman WM, Dijkstra G, Masclee AA, Boonen A, Winkens B, van Tubergen A, Jonkers DM, Pierik MJ. *Telemedicine for management of inflammatory bowel disease (myIBDcoach): a pragmatic, multicentre, randomised controlled trial*. Lancet. 2017 Sep 2;390(10098):959-968. doi: 10.1016/S0140-6736(17)31327-2. Epub 2017 Jul 14. PMID: 28716313.

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Overview of key elements

	Onco 70+	IkHerstel	IBD
Team	In-hospital multi-disciplinary team	+ Patient participates in the team	+ Patient participates in the team
Information	Face to face assessment	Advice in an app	Early warning in an app
Care Pathway	Consideration of outcome that matters to the patient	Tailor advice to patient's situation	Care at the right moment

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Patients with cardiometabolic disorders

Patients with cardiometabolic disorders

Observation

Cardiometabolic disorders often occur simultaneously and have common risk factors

Karin Kaasjager MD, PhD, Monique Prinssen MD, PhD, Dorien Zwart MD, PhD

Patients with cardiometabolic disorders

Redesign Care Pathway

Existing guidelines were brought together in

- an agreement between GPs and Medical Specialists (regional transmural agreement)
- An e-health-module for the patient
- Tools for the consultation room

Optimal care round tables for collective action-oriented learning with patients

Creating one point of information

Have the GP coordinate care

Helping patients to take control of their treatment plan

Patients with cardiometabolic disorders

Results

"Many patients have a combination of cardiometabolic diseases. The opportunity to ask questions to a multidisciplinary team then has a great added value for both the patient and the GP." (Monique Prinssen, GP, Utrecht)

GPs indicate that they do not refer 8 out of 10 patients.

"Finally all healthcare providers are working together." (a patient)

Creating one point of information

Have the GP coordinate care

Helping patients to take control of their treatment plan

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Defragmentation of healthcare helps patient and GP to get to grips with health and care and **reduces** referrals

References

Kaasjager K, Prinssen M, Zwart D. *Cardiometabolic Health-Care Network: The Right Care in the Right Place Through Customized Treatment*. In: Van Weert N, Hazelzet J, eds. Personalized Specialty Care - Value-Based Healthcare Frontrunner from the Netherlands. Springer; 2021.

Overview of key elements

	Onco 70+	IkHerstel	IBD	Cardio-metabool
Team	In-hospital multi-disciplinary team	+ Patient participates in the team	+ Patient participates in the team	GP & Medical Specialists
Information	Face to face assessment	Advice in an app	Early warning in an app	Platform for inter collegial consultation
Care Pathway	Consideration of outcome that matters to the patient	Tailor advice to patient's situation	Care at the right moment	Defragmentize care

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Patients with Stroke

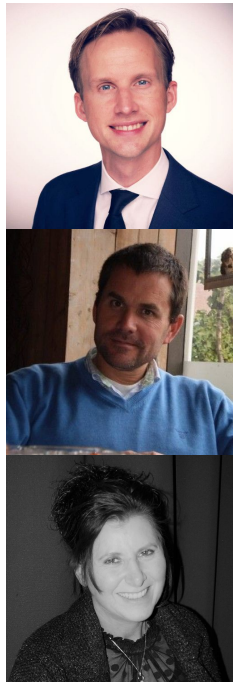
Patients with Stroke

Observation

Despite network collaboration, patients and their families too often perceive the provided health care as fragmented

Insight

Teams in hospital, nursing home, rehab facility and home care focus on their own part rather then the whole of the patient process

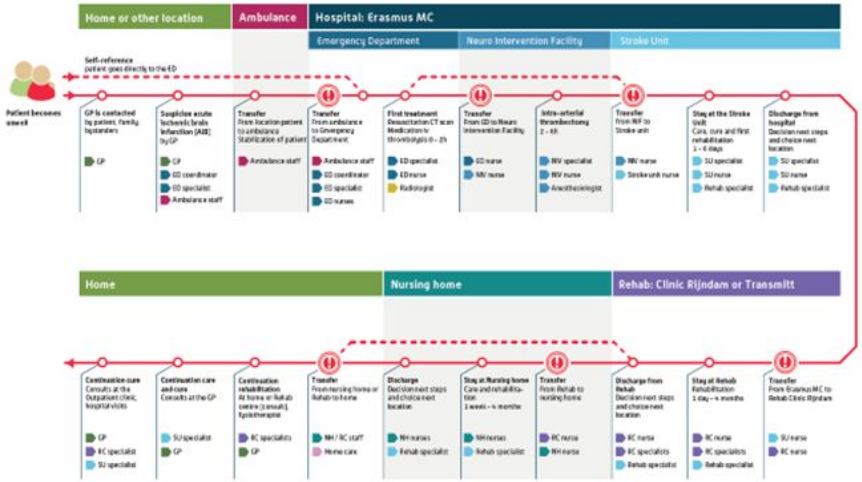


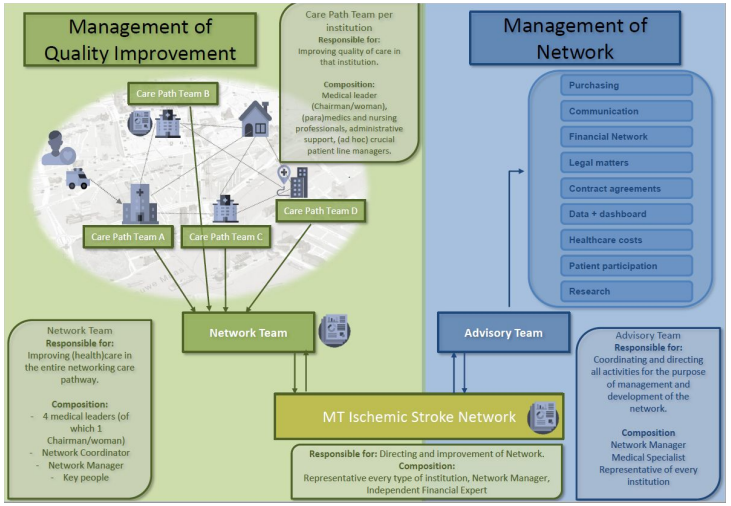
Bob Roozenbeek MD, PhD, Markus Wijffels MD, PhD, Bianca Buijck, PhD

Patients with Stroke

Redesign

- **Outcomes** measurement of all patients up to 2 yrs after stroke
- Team reflections and dialog with the patient about outcomes
- Bundled payments as an integration of healthcare payment

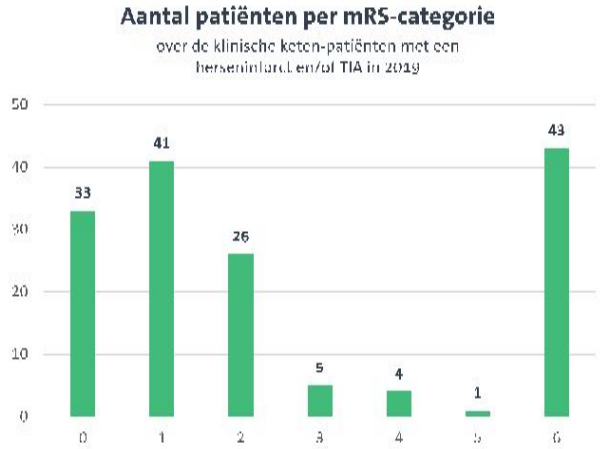




Patients with Stroke

Results: outcome per patient

Functional recovery



Transition through service

Quality of Life

Roozenbeek B, et al, 2021, figure 15.5

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Just network collaboration may not be integrated enough, until the process, the management, the payment and quality improvement is integrated and guided by patient outcomes

References

Roozenbeek B, Wijffels M, Buijck B. *Integrated Health Care for Ischemic Stroke Patients*. In: van Weert N, Hazelzet J (eds. ., eds. Personalized Specialty Care - Value-Based Healthcare Frontrunners from the Netherlands. Springer; 2021:109-118.

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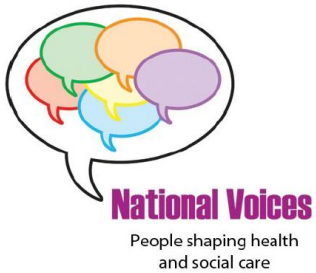
Care Pathway	Consideration of outcome that matters to the patient	Tailor advice to patient's situation	Care at the right moment	Defragmentize care	Late patient outcome leading for all

High Performing Clinical Microsystems

Nelson E, Batladen P, Godfrey M: Quality by Design: A Clinical Microsystems Approach. San Francisco: Jossey-Bass; 2007.

Integrative care



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Multidisciplinary, interprofessional, patient included

Info that matters brought together where it matters

(Re)design the care pathway to deliver upon expectations

Take home messages

- Personalised care is the way to go
- Integration of health services helps, however context matters
- Especially via
  - Team performance, co-production with the patient
  - Availability of relevant information (IT !)
  - Team reflection about what matters to the patient

Society Personalized Healthcare
(Genootschap Gepersonaliseerde Zorg)

https://www.gepersonaliseerdezorg.org/

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