van Kemenade
Audit Coaching Training

SAFETY

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Content

1. Value clarification: SAFETY
2. What are risks?
3. Why do they occur?
4. The House of Safety

Risk is part of our every day lives:

Cross a road: risk of getting run-over

Manage your finances: risk of getting broke

Choose to smoke: risk of lung cancer

Going for a swim: risk of drowning

Flying:

Go to a hospital…….

10% risk of harm

Medical errors

Medical errors are the third leading cause of death behind heart disease and cancer – more than car accidents, AIDS, and diabetes combined.

Centers for Disease Control and Prevention. (2016). Leading Causes of Death. Retrieved from: https://www.cdc.gov/nchs/fastats/deaths.htm

I. Value clarification

Safety

Kohn et al., 1999 *To Err is Human; Building a Safer Health System*, IOM report , p. 16

"Safety is freedom from accidental injury".

Cronenwett et a., 2007, Quality and Safety education for nurses, *Nursing Outlook*, 55, pp. 122-131. p. 128

"Safety is minimizing the risk of harm to patients and providers through both system effectiveness and individual performance". p.128

1. Value clarification

- Calamity
  - Miss/incident
  - Near-Miss
- Adverse event
  - Medical error
    - » Medical malpractice

To Err is Human

- Not all errors result in harm. Errors that do result in injury are sometimes called preventable adverse events.
- Not every adverse event is preventable.

(Institute of Medicin, 1999, *To Err is Human*)

2. What are the risks?

10% of medical activities in a hospital lead to a medical error;

About 50% is preventable;

1% leads to a severe error, leads to death or disability.

(NPSA/NHS, 2006; idem WHO)

Data

Talking about 427 million hospitalizations,

that is

42,7 million adverse events…….. worldwide

US

‘Adverse events’ 2.9 – 3.7% of admitted patients

6.6 – 13.6% deaths caused by adverse events of which over 50% could have been prevented

98,000 people die every year due to medical errors
(IOM (1999) To Err is Human)

An estimated $19.5 billion dollars in health care costs are attributable to medical errors (2008).

Adverse event, % of admitted

• US	10%
• Canada	7,5%
• Japan	11,0%
• New Zealand	12,9%
• France	14,0%
• Australia	16,6%
• Netherlands	3,15%

Netherlands

Year	% medical errors	Amount of pt
2004	4,1%	1735
2008	5,5%	1960
2012	2,6%	970
2017	3,15	1035
Of which	36,5%	avoidable

Data in Caribbean?

What things can go wrong in a hospital?

JCI standards

International Patient Safety Goals (IPSG) help accredited organizations address specific areas of concern in some of the most problematic areas of patient safety.

Goal 1: Identify patients correctly
Goal 2: Improve effective communication
Goal 3: Improve the safety of high-alert medications
Goal 4: Ensure safe surgery
Goal 5: Reduce the risk of health care-associated infections
Goal 6: Reduce the risk of patient harm resulting from falls

IPSG 3. Medication errors

22% of adverse drug events were preventable,
17.8% could have been identified earlier, and
16.8% could have been mitigated more effectively

Joint Commission. (2008). Preventing pediatric medication errors. Sentinel Event Alert, 39, 1-4.

IPSG 4. WSS Data

Rare, but. Researchers find wide variations in the number of WSSs: 1 out of 27,686 cases, or 1 out of every 112,994 surgeries,
or 1 in 5 hand surgeons during their career, or 1 out of 4 orthopedic surgeons with 25 years' experience.

Data

Unsafe surgery is the third leading cause of death globally.

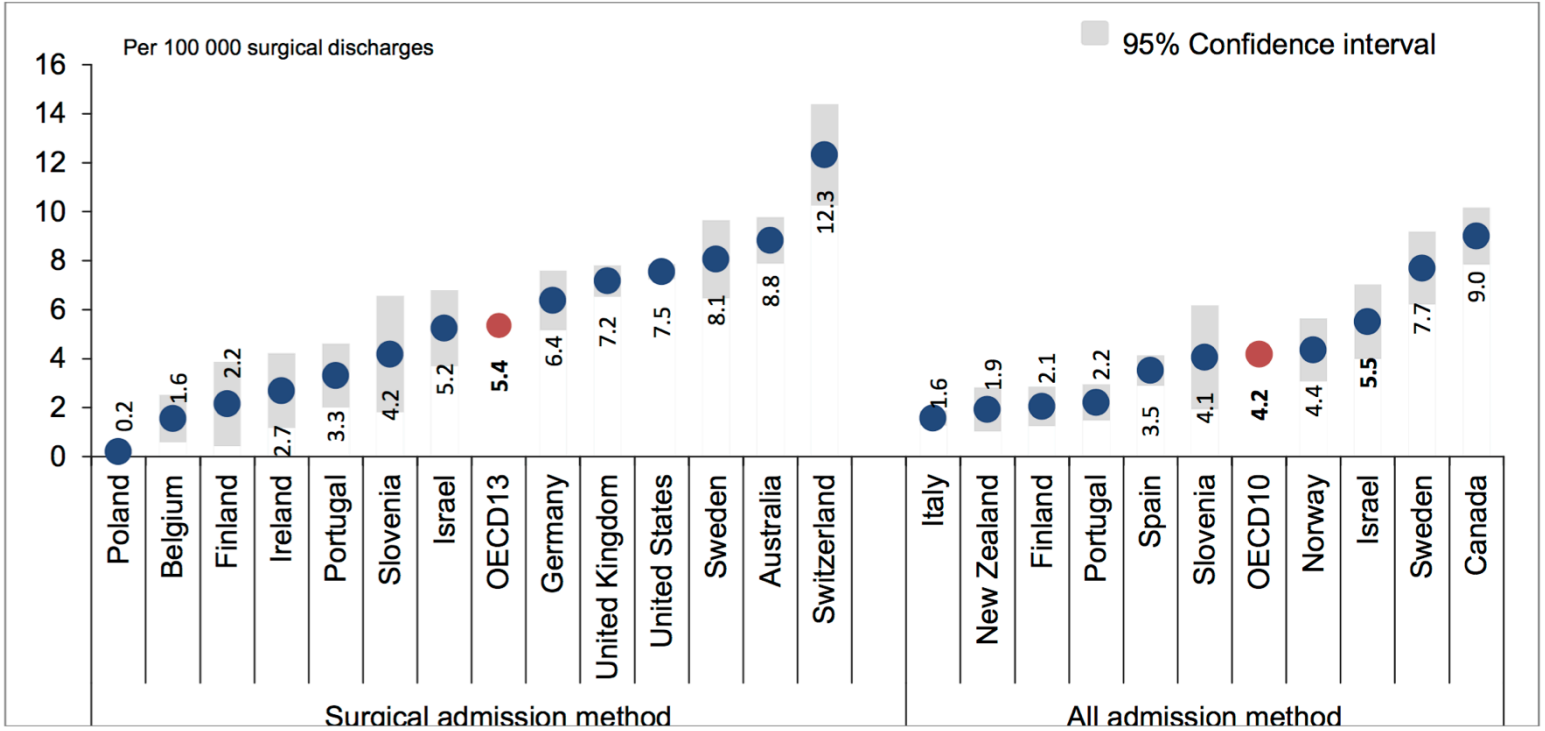
Nadmin, P. O. (2015, June 22). Unsafe surgery and anaesethesia lead to third of all deaths. Retrieved December 22, 2016, from http://www.opnews.com/2015/06/safe-surgery-anaesethesia-third-deaths/11529

Instruments left…

Only 33% hospitals in Netherlands counts gazes and instruments. Counting needles even less.
Less than 33% of the hospitals has a protocol for v=counting instruments.
Almost no hospital has a protocol for counting disposables.

Data

Figure 1. Foreign object left after procedure, 2015 (or nearest year)



IPSG 5. Healthcare Associated Infections (HAI)

Infections patients can get while receiving medical treatment in a healthcare facility.

Centre for Disease Control and Prevention

Data HAI

US: 1,7 million healthcare related infections each year, leading to 99,000 deaths

Center for Disease Control and prevention . Preventing Healthcare-Associated Infections, retrieved https://www.cdc.gov/washington/~cdcatWork/pdf/infections.pdf

Hospital infections affect 14 out of every 100 patients admitted

Europe

Infections associated with health care affect an estimated 1 in 20 hospital patients on average every year (estimated at 4.1 million patients) with the four most common types being: urinary tract infections (27%), lower respiratory tract infections (24%), surgical site infections (17%) and bloodstream infections (10.5%). Multiresistant *Staphylococcus aureus* (MRSA) is isolated in about 5% of all infections associated with health care. The United Kingdom National Audit Office estimates the cost of such infections at £1 billion per year
(WHO, 2000)

Healthcare Associated Infections

HAIs cost hospitals approximately $ 9.8 billion every year.

Gregory, A., Chami, E., & Pietsch, J. (2016). Emotional motivators: Using visual triggers as an infection control intervention to increase hand hygiene compliance throughout the hospital. American Journal of Infection Control, 44(6), S3.

HAI

Surgical site infections occur in 2-5% of patients undergoing inpatient surgery

Anderson, D. J., Podgorny, K., Berríos-Torres, S. I., Bratzler, D. W., Dellinger, E. P., Greene, L., … & Kaye, K. S. (2014). Strategies to prevent surgical site infections in acute care hospitals: 2014 update. Infection Control & Hospital Epidemiology, 35(06), 605-627.

Hand wash

- Only 34% of staff (nurses and doctors) wash their hands –let alone properly- before touching a patient.

IPSG 6. Risk of fall

A fall is defined as an unplanned descent to the floor or other lower surface with or without injury to the patient that occurs in an eligible nursing unit.

NDNQI

Risk of fall

- Rates of falls in US hospitals range from 3.3 to 11.5 falls per 1,000 patient days of which 26,1% resulted in an injury, 2% result in fractures. Bouldin et al (2013)
- Netherlands: 2 - 15% of the patients admitted fall.

3. Why do these events occur?

- Interpersonal
  - Violence and intimidation
  - Inadequate communication
- Extrapersonal
  - Exposure to hazardous materials
- Intrapersonal
  - Poor lifting, improper handling of materials, not obeying safety rules

Most common causes of adverse events (TOHPX)

1. Technology issues
2. Organisational issues incl communication
3. Human errors
4. Patient related issues
5. (X) Other: like nature
   - Fire, tsunami, hurricane

1. Technology issues

- Health care information technology contributed to medication error event (889 reports Pennsylvania Safety Authority, 2016)
- The US Food and Drug Administration has received approximately 56,000 reports of adverse events associated with infusion pumps between 2005 and 2009.

2. Organisational

- No protocols
- Lacking maintenance of technology
- Lacking control of equipment/ buildings
- No internal audit system
- Leadership bot committed to safety

JCI

70% of all negative events are caused by communication failures

Leonard et al. (2004)

3. Human errors

Physicians

Lack of documentation
Not complying to standards/protocols/legislation
Mistake in identification
Wrong diagnosis
Wrong medication prescription
Abandonment
No proper consent obtained
Failure to seek consultation or refer
Failure to obtain results of diagnostic tests done
Infection control
Premature discharge/dismissal

3. Human errors

Nurses

Failure to follow nursing procedures/protocols

Mistake in medication dispensal

Inadequate medication adminsitration

Failure to follow physician's orders

Failure to report patient changes

Failure to correct verbal or telephone orders

Miscount or not counted instruments at OK

Falure to report defective equipment

Patient burns

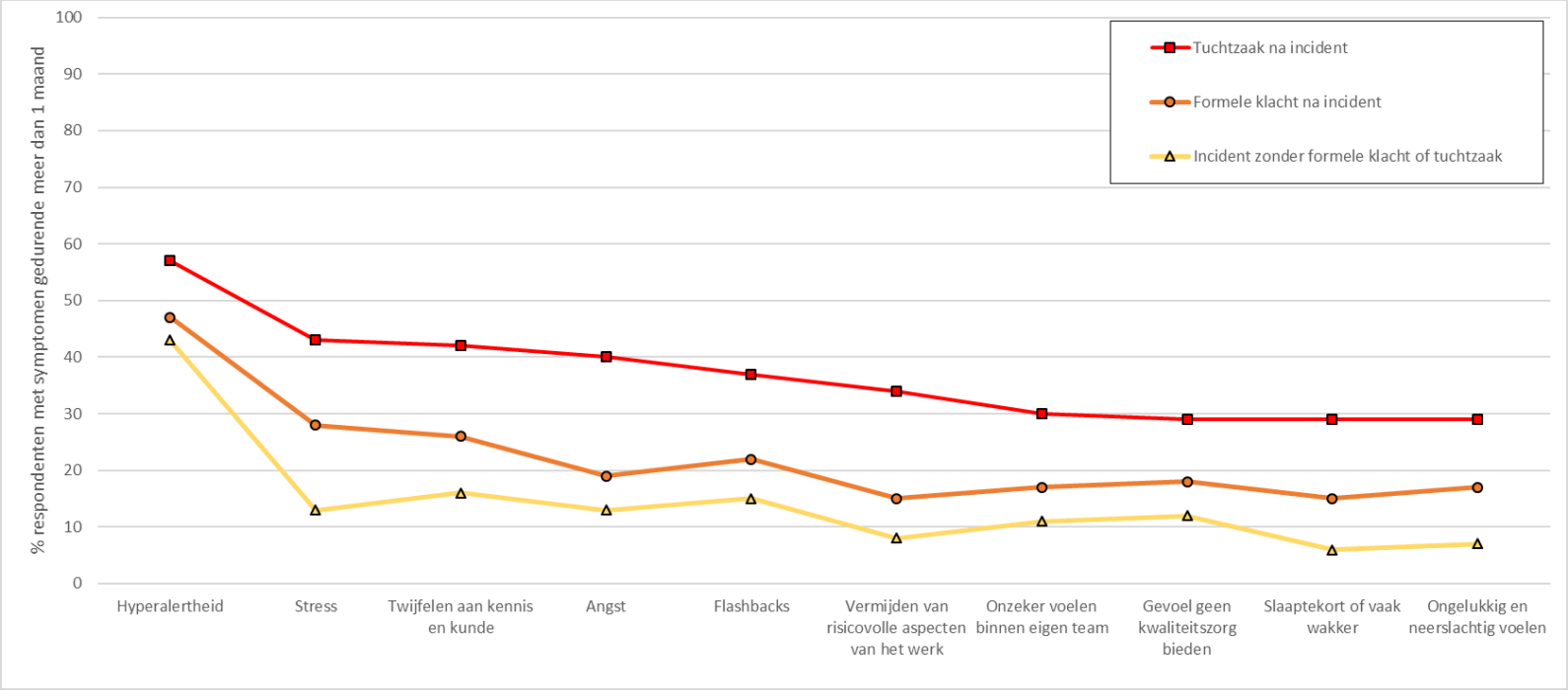
Patient falls

More care for caregiver

- KU Leuven research (22-02-2019)
- “Better guidance required for caregivers after incidents”
- “Impact on caregivers underestimated”

More care for caregiver

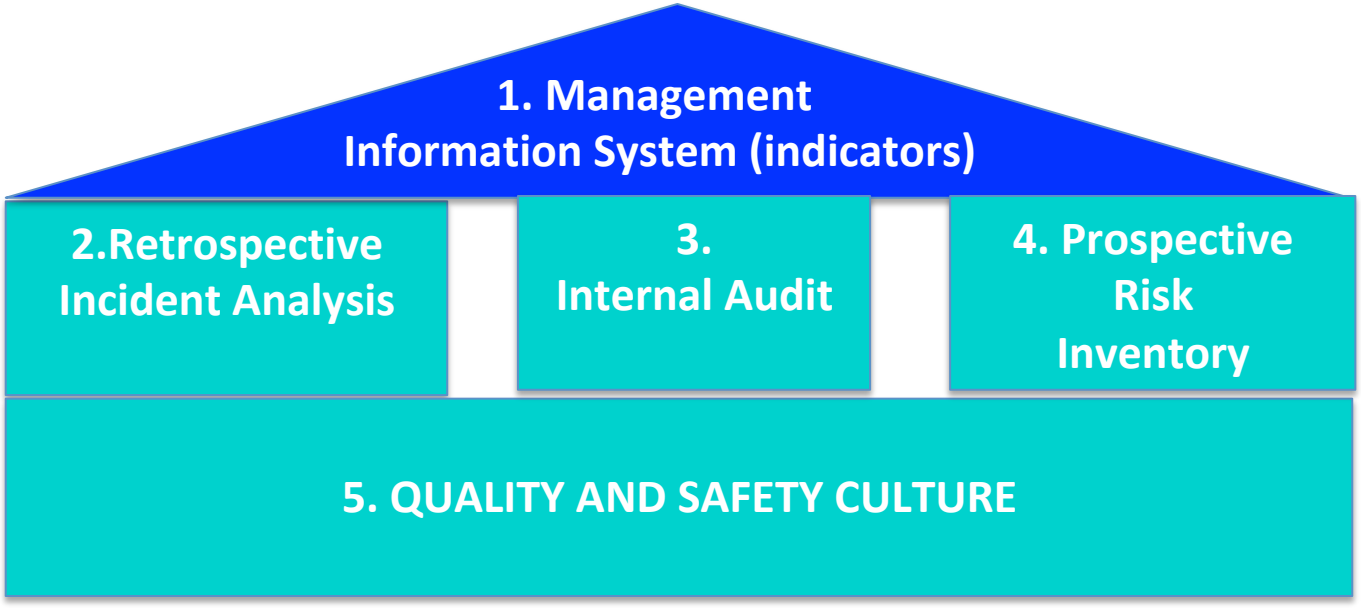
- 7000 doctors and nurses in 30 Dutch hospitals
- 80% once involved in incident
- 30% once involved in incident with permanent damage or death



Figuur 1 Symptomen meer dan een maand na betrokken te zijn bij een incident

4. THE HOUSE OF SAFETY

The House of Safety



Kemenade (2018)

The House of Safety more in detail

1. Management Information System

MIS

- Indicators/ **benchmarking**
  - SYNERGY?
- Claims / complaints
  - Follow up
- Incidents
  - Incident reporting

2. Retrospective Incident Analysis

Method for RIA

3. Internal audit

Internal audit

- Document review
  - Risk Protocols/policies/procedures
  - Complaints
  - Indicators/benchmarks
  - Satisfaction surveys
- Interviews
- Observation

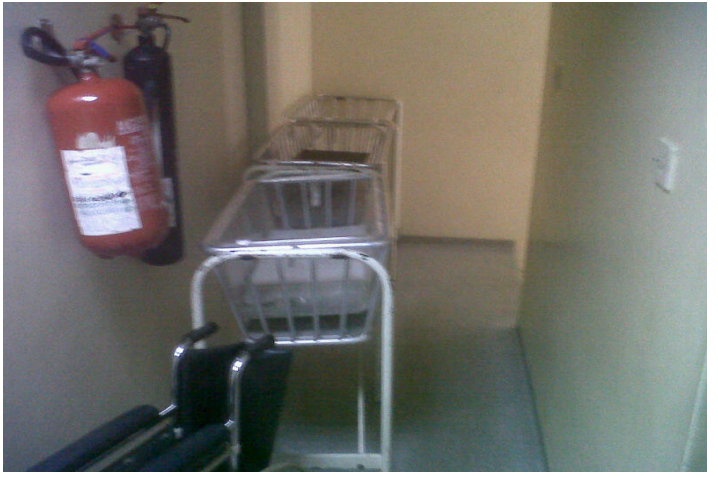

CRASH CART

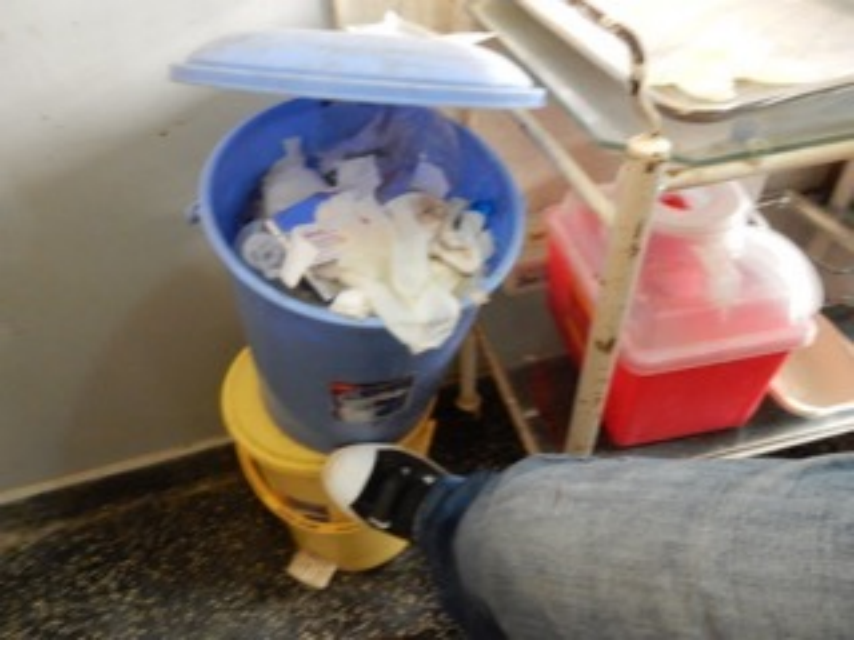

PROPERTY OF LAGOON HOSPITALS
SERVICE LOG
LOCATION
EQUIPMENT/INSTRUMENT
DATE SERVICED
NEXT SERVICE DUE


FIRE NOTICE
ANY PERSON DISCOVERING A FIRE SHOULD:-
RAISE THE ALARM,
CALL THE FEDERAL FIRE SERVICE IKEJA,
TEL:
OR THE MAINTENANCE DEPARTMENT ON
EXTENSION NO.
AVOID THE USE OF THE LIFTS,
EVACUATE THE BUILDING,
ASSEMBLE AT A PREDETERMINED POINT,
CALL THE ROLL TO ENSURE THAT NO ONE
IS LEFT IN THE BUILDING,
ATTACK THE FIRE WITH THE APPROPRIATE
FIRST AID FIRE APPLIANCES WITHOUT
ENDANGERING YOURSELF.


MAZIWA YA MAMA NI BORA


LAGOON
Hydrogen peroxide(6%....0.125% ,
Glycerine B.P.....1.45% ,
Water.....To 100%
Volume: 500mls





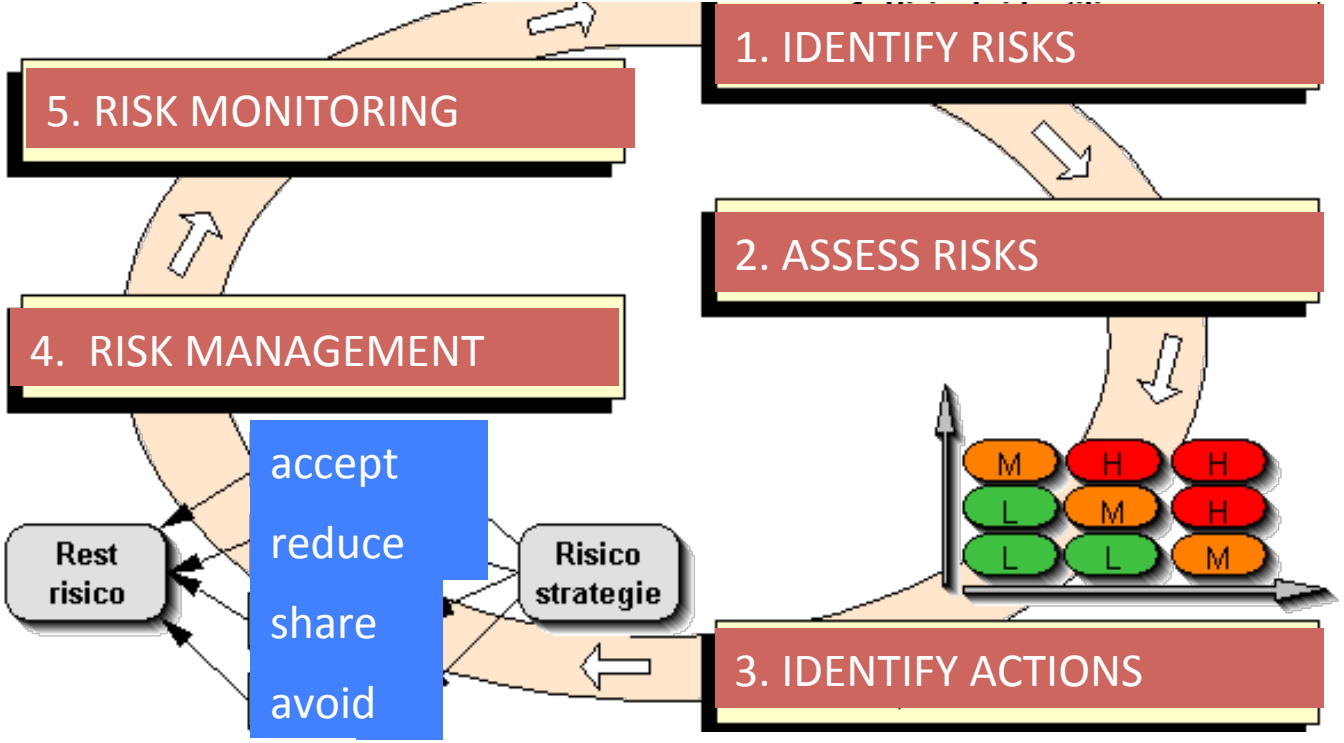

WARNING DO NOT FILL ABOVE


Your 5 Moments
for Hand Hygiene

Tour: observation!!!!

4. Prospective Risk Inventory (PRI)

PRI

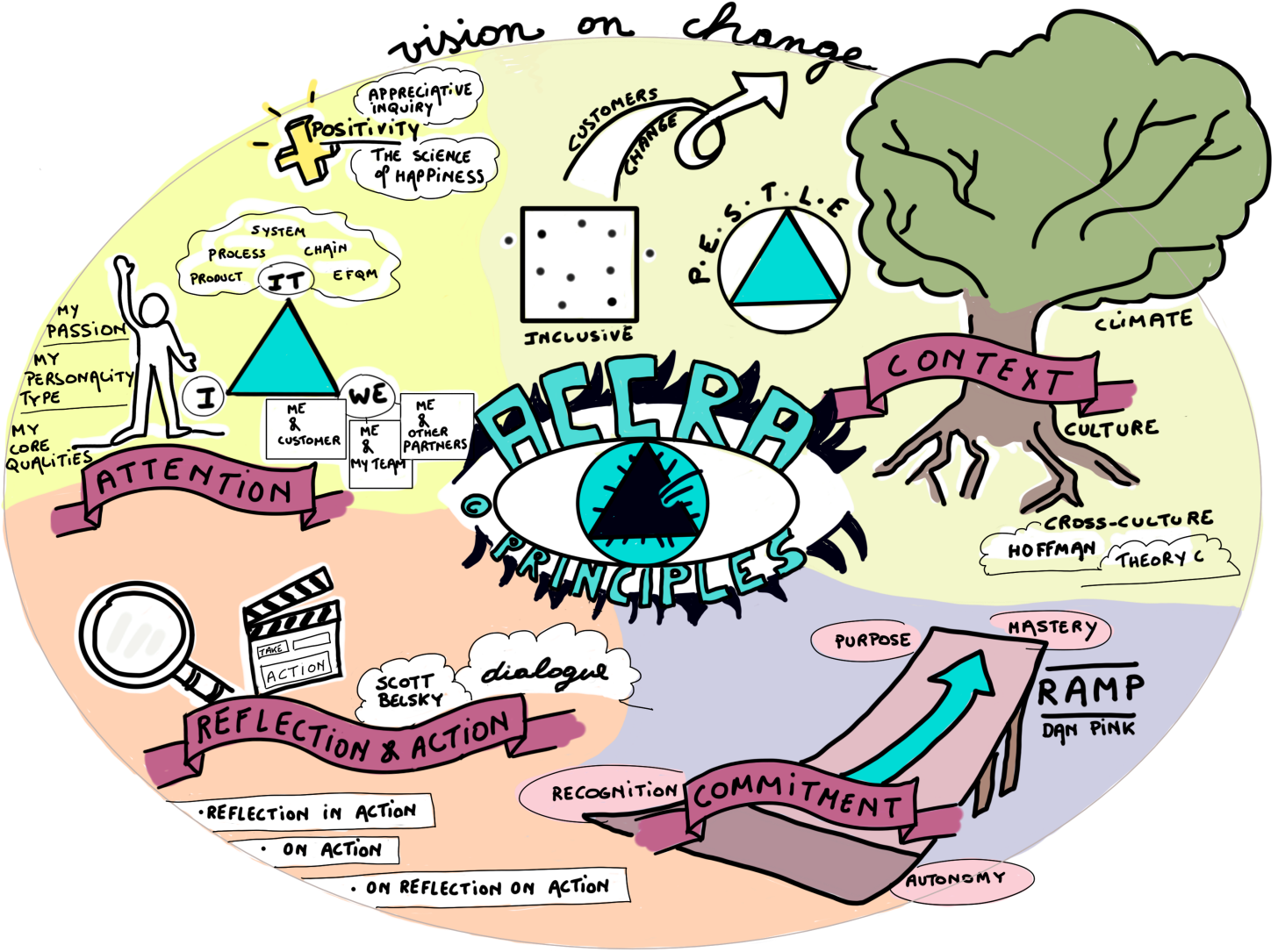

1. IDENTIFY RISKS
2. ASSESS RISKS
3. IDENTIFY ACTIONS
4. RISK MANAGEMENT
5. RISK MONITORING
accept
reduce
share
avoid
Rest risico
Risico strategie
M H H
L M H
L L M

4. Quality Culture

Quality Culture

- Feedback after incidents
- Non punishing reponse
- Leadership: support!
- Nieva V. en Sorra J. (2003), *Safety Culture Assessment. A tool for Improving Patient Safety in Healthcare Organisations*

- ACCRA ©


vision on change
APPRECIATIVE INQUIRY
POSITIVITY
THE SCIENCE OF HAPPINESS
CUSTOMERS
CHANGE
INCLUSIVE
P.E.S.T.L.E
SYSTEM
PROCESS
CHAIN
PRODUCT
IT
EFQM
MY PASSION
MY PERSONALITY TYPE
MY CORE QUALITIES
I
WE
ME & CUSTOMER
ME & MY TEAM
ME & OTHER PARTNERS
ATTENTION
AGRA
PRINCIPLES
CONTEXT
CLIMATE
CULTURE
CROSS-CULTURE
HOFFMAN
THEORY C
TAKE
ACTION
SCOTT BELSKY
dialogue
REFLECTION & ACTION
•REFLECTION IN ACTION
• ON ACTION
• ON REFLECTION ON ACTION
PURPOSE
MASTERY
RAMP
DAN PINK
RECOGNITION
COMMITMENT
AUTONOMY

Literature

Kohn et al. (1999), To Err is Human, IOM, US
Nieva, V. en Sorra J. (2003), *Safety Culture Assessment. A tool for Improving Patient Safety in Healthcare Organisations*
Van Kemenade, E.A. (2014), The Myth of the PDCA cycle in times of emergent change, *Proceedings European Organisation for Quality Congress June 2014, Goteborg*, Sweden, Retrieved from : https://www.vankemenade-act.nl/wp-content/uploads/2017/08/THE-MYTH-OF-THE-PDCAnomps-1.pdf , date 30 January 2019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Quality Culture

- ACCRA ©
  - Attention to: „It, We and I“
  - Commitment
  - Context taken into account
  - Reflection
  - Action

Example human errors

Wrong side, wrong site surgery

Wrong-site surgery (WSS) encompasses surgery performed on the wrong side or site of the body, wrong surgical procedure performed, and surgery performed on the wrong patient.

IOM (1999) To Err is Human