



**EORNA**  
EUROPEAN OPERATING ROOM  
NURSES ASSOCIATION

# 9th EORNA Congress

16-19 May 2019

The Hague, The Netherlands

- CONGRESS ▾
- SCIENTIFIC PROGRAMME & ABSTRACTS ▾
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**“ON THE MOVE”**

**9th EORNA Congress**

The Hague, The Netherlands  
16 - 19 May 2019





# Patient Safety on the move ?

Geert Driessen  
The Netherlands



## Geert Driessen

- Graduated as a nurse (Maasziekenhuis Boxmeer The Netherlands, 1981)
- Graduated as an OR nurse (Maasziekenhuis Boxmeer, 1983)
- Teaching degree (VU-Amsterdam The Netherlands, 1990)
- OR nurse in Boxmeer, Maastricht, Arnhem, Nijmegen (The Netherlands)
- OR Nurse educator in Heerlen and Nijmegen (The Netherlands)
- Currently (since 1997) Scientific Affairs & Education in Medical Industry
- Co-founder of the "Passion for People" foundation
- Member of several (local-CEN-ISO) standardization groups



## Geert Driessen

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## Disclaimer

The opinions expressed in this presentation are solely those of the presenter and not necessarily those of any company or organization.

Presenter is occupied at 3M since 1997.

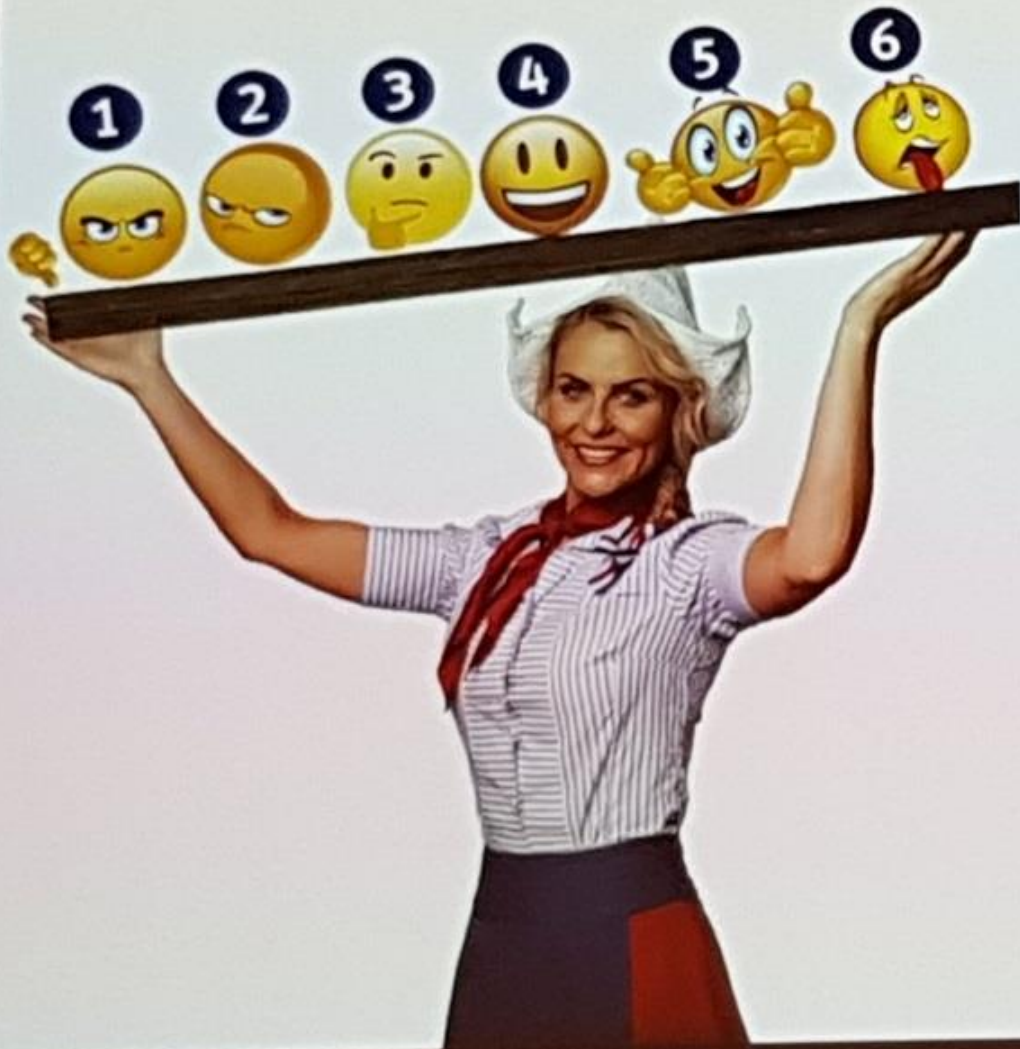


Go in your webbrowser to the following URL

[PollEv.com/geertdriesse039](https://PollEv.com/geertdriesse039)



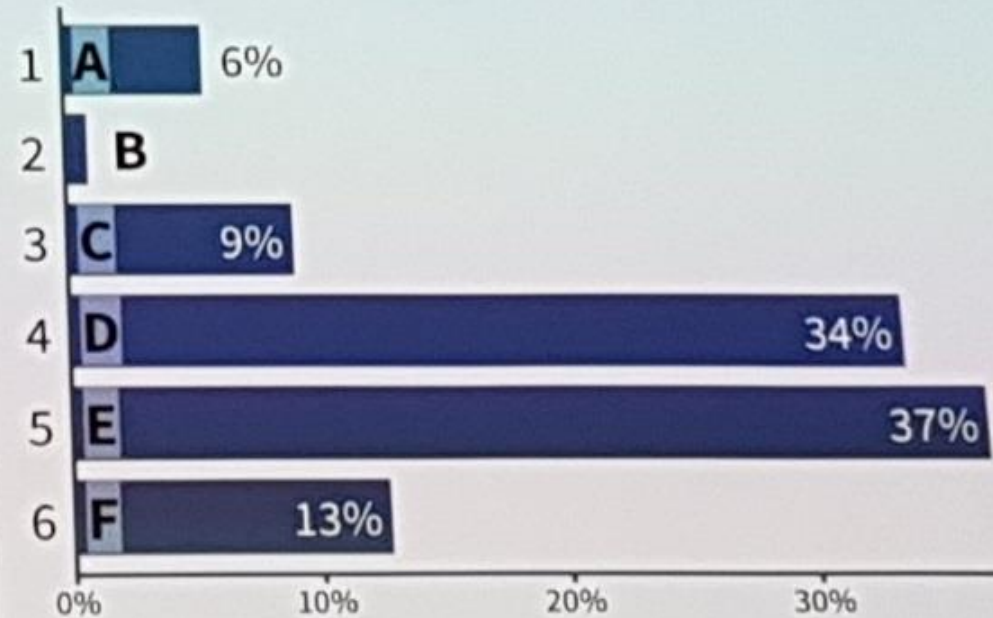
# How do you feel today ?

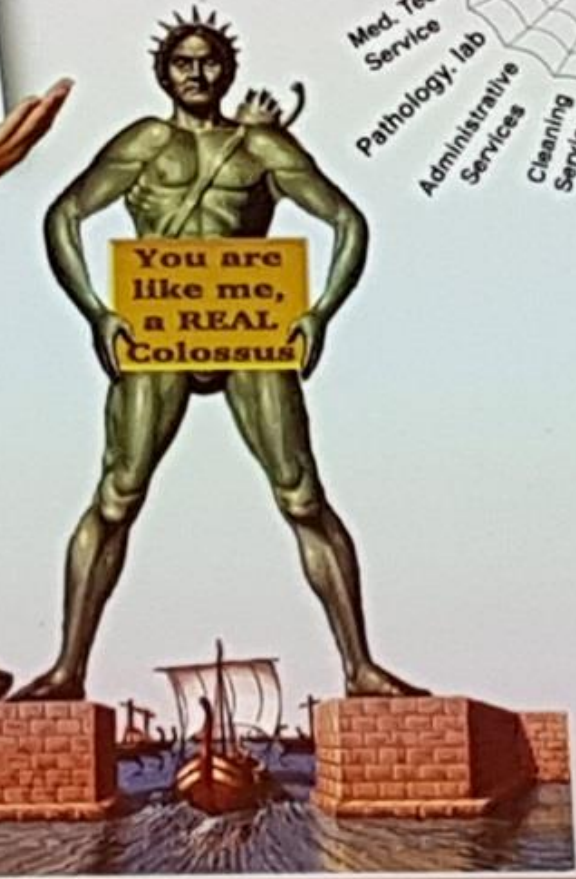
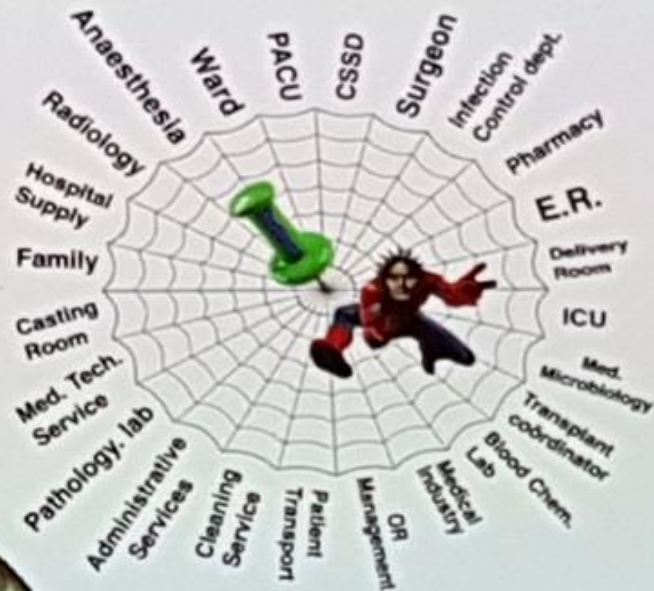
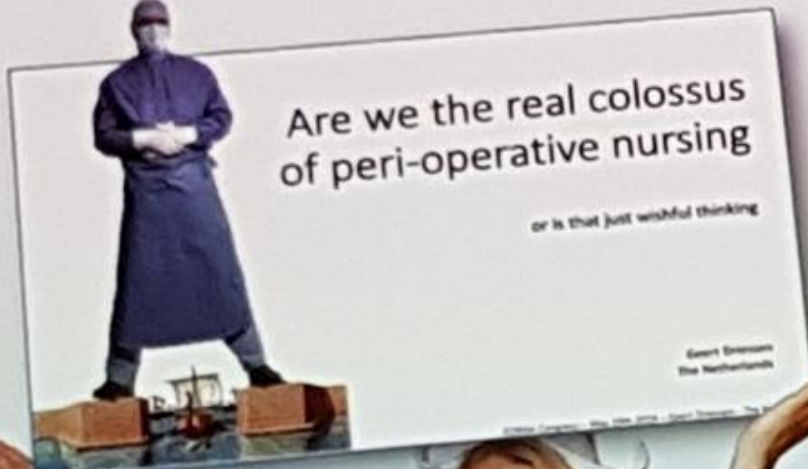


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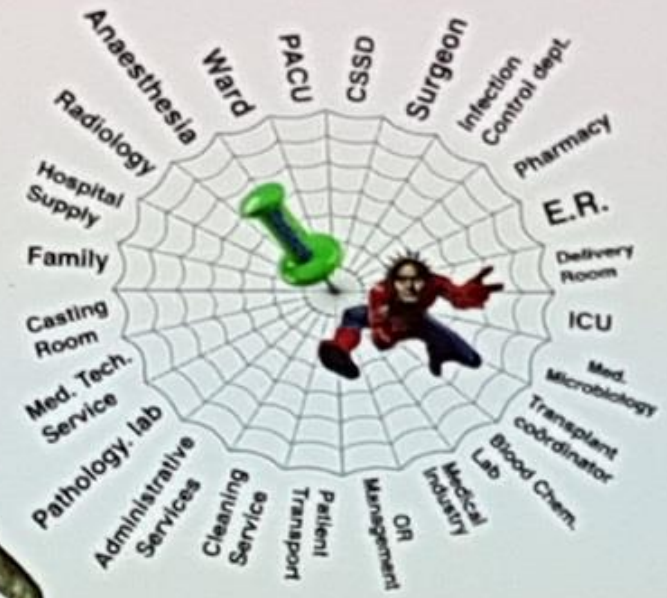
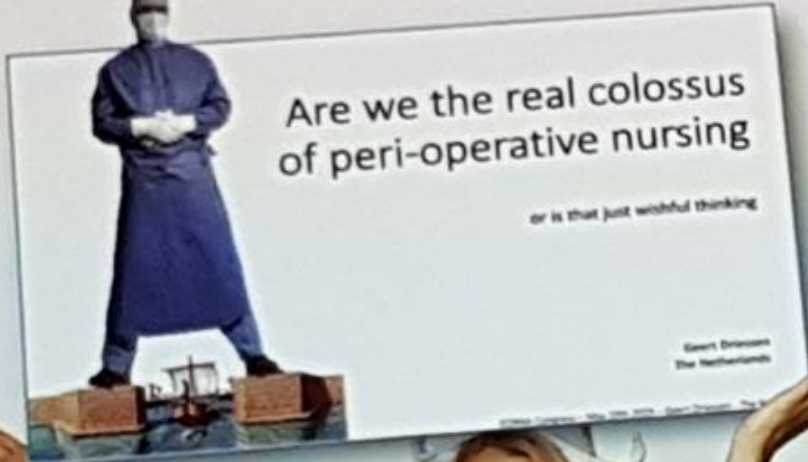
Text **GEERTDRIESSE039** to 079 807 15 49 once to join, then A, B, C, D, E...





**2017**

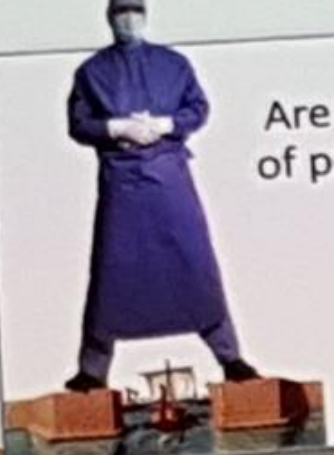




2017



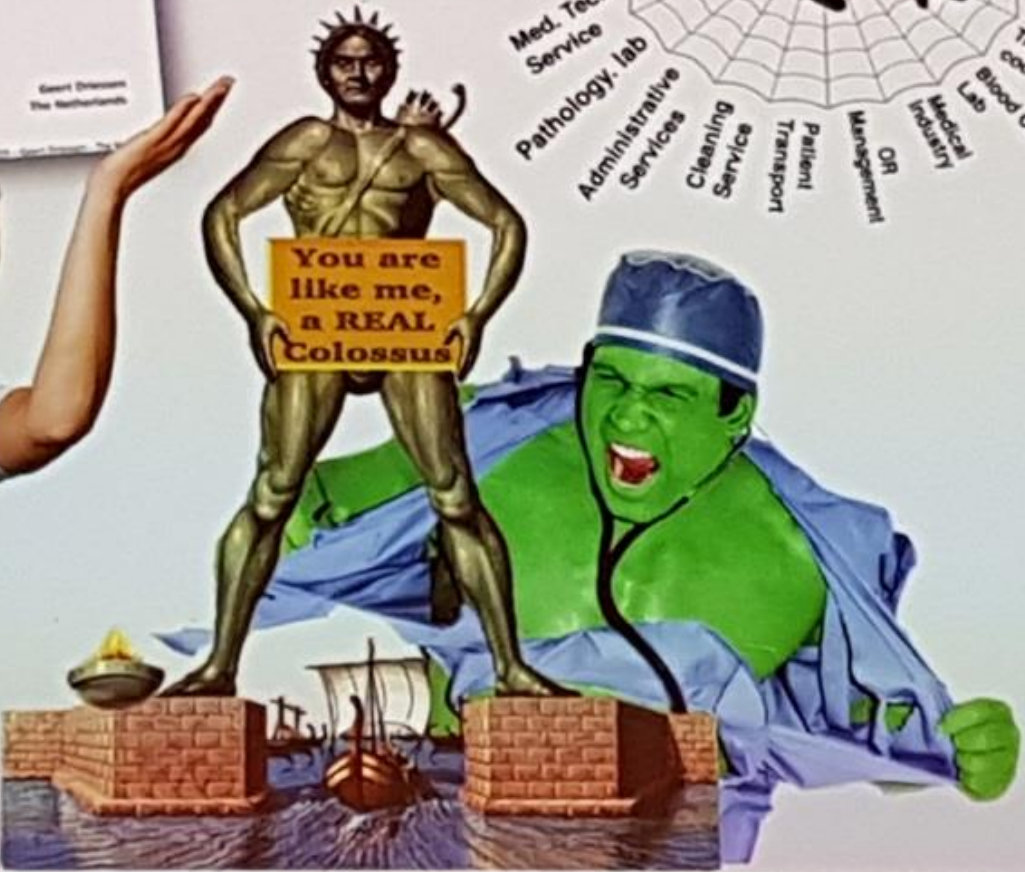
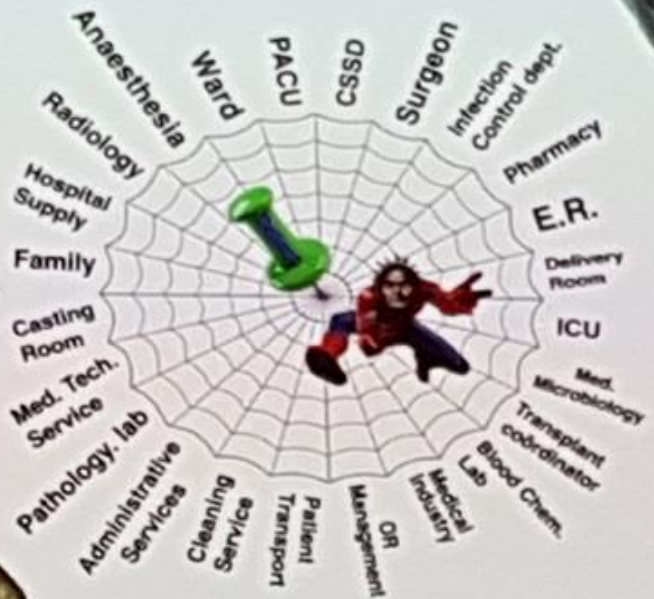




Are we the real colossus  
of peri-operative nursing

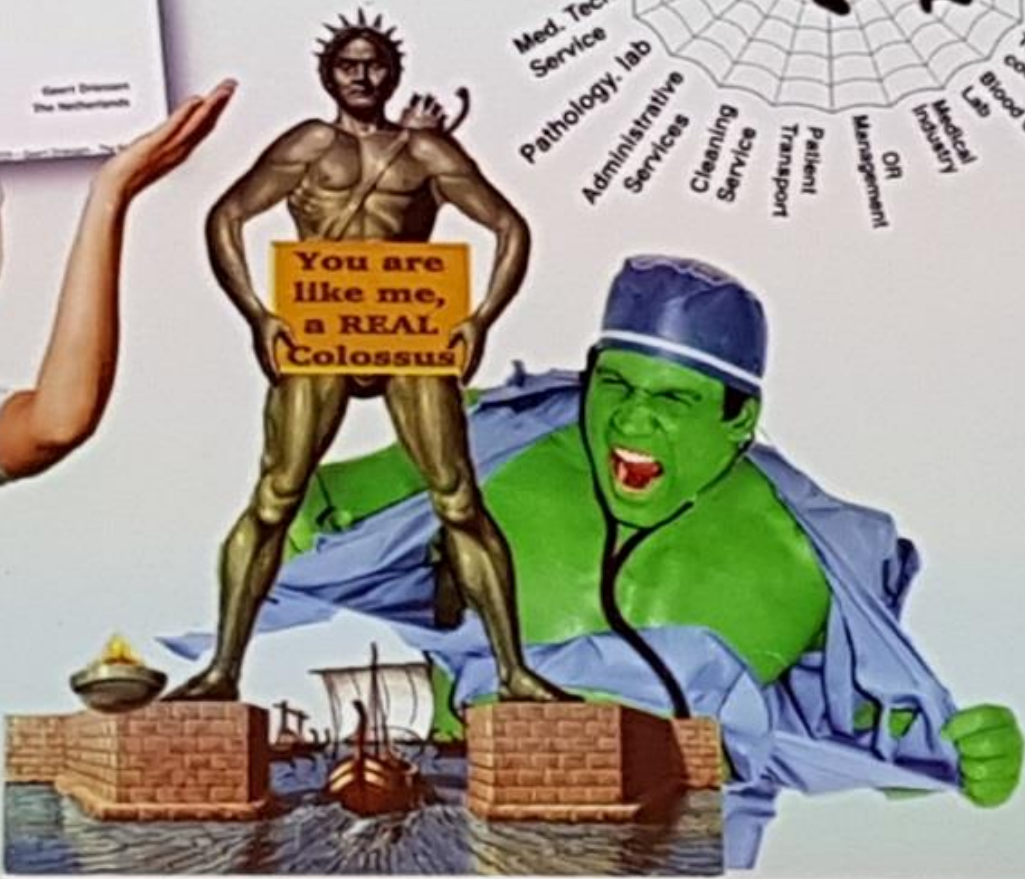
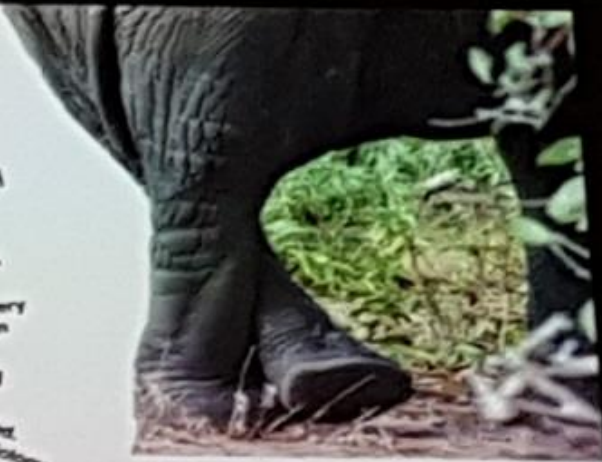
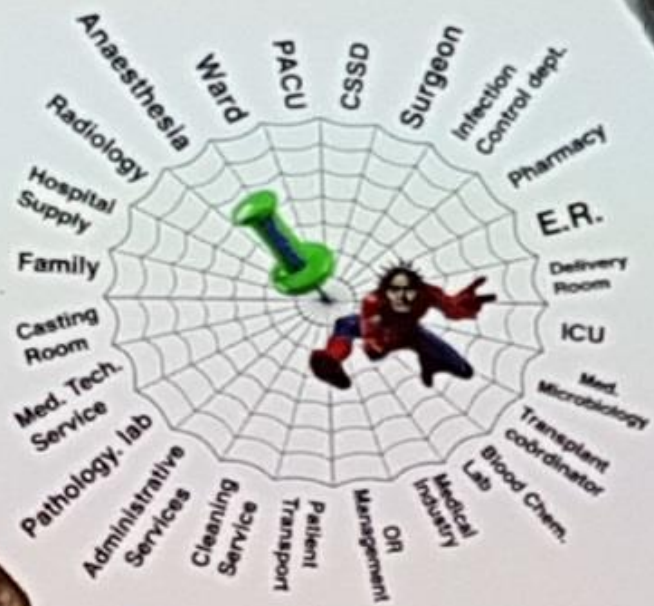
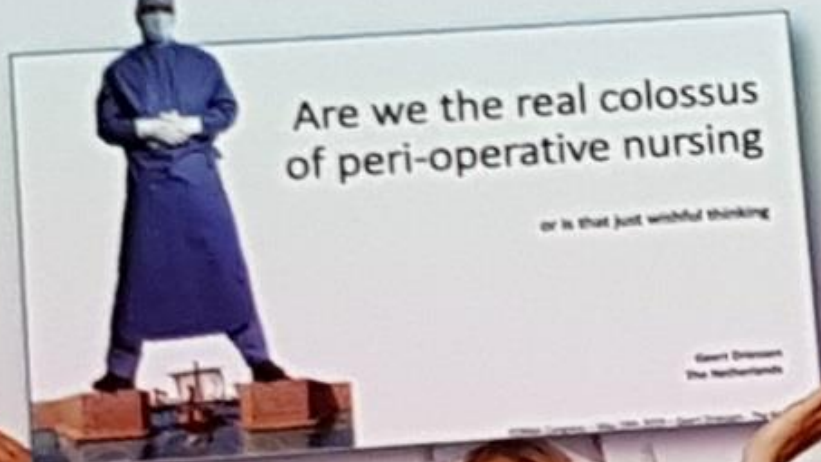
or is that just wishful thinking

Guest Editorial  
The Netherlands



2017





You are like me, a REAL Colossus



2017



In our job,  
we are

**second to none !!!**

**We are always  
on the move**







**EORNA**  
is on the move  
I am on a mission



# Patient Safety

Let's go back to Basics in fighting infections from every angle





## Patient Safety, a definition



**World Health  
Organization**

**INSTITUTE OF MEDICINE**

*OF THE NATIONAL ACADEMIES*

**Advising the nation • Improving health**

**patient safety** is the **prevention of errors**  
and **adverse effects** to patients

“freedom from accidental or preventable injuries  
produced by medical care” or **prevent harm**

## Patient Safety and Quality of Care

INSTITUTE OF MEDICINE  
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

patient safety is “indistinguishable from the delivery of quality health care.

but what is  
**QUALITY**  
?



# What are "key-words" in YOUR definitions of "Quality" ?

## What are "KEY-WORDS" in YOUR definition of Quality ?

Respond at [PollEv.com/geertdriesse039](https://PollEv.com/geertdriesse039) Text **GEERTDRIESSE039** to **079 807 15 49** once to join, then text your message





but what is  
**QUALITY**  
?

Quality is the degree to which a product or a service meets the requirements, needs and expectations of the patient



## Three stages of Patient Safety (The first Quality System in Healthcare)

1. The patient is **safe**
2. The patient is **relieved**
3. The patient is **dead**



*Florence Nightingale; Notes on Nursing, Notes on Hospitals*

## Protocols of Care

**W**ho is doing

**W**hat

**W**hen

**W**hy

**W**ith **W**hat

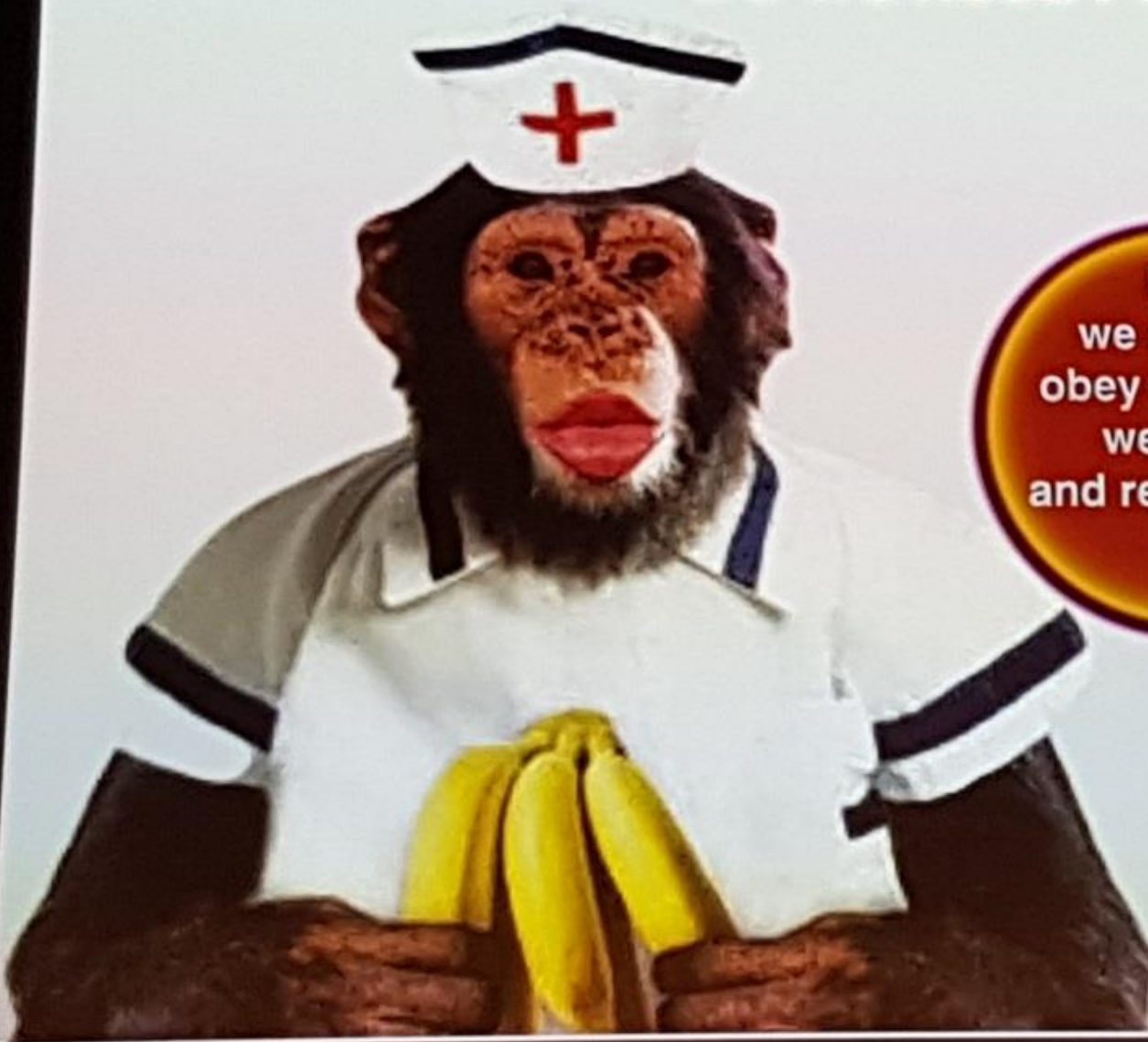
**W**ho is responsible



**Deviation** from a Protocol of Care (non-compliance) creates a **potentially unsafe situation**



# Do we need Protocols of Care for everything ?



But  
we should  
obey the ones  
we have  
and really need

More rules simply may  
provoke more rule  
violations

*Espin et al: Error or Act of God, Surgery, Vol. 139, Nr 1,7-14*




**IF DOOR DOES  
NOT OPEN  
DO NOT  
ENTER**

# Obedience (Compliance)

**W**ho is doing  
**W**hat  
**W**hen  
**W**hy  
**W**ith **W**hat  
**W**ho is responsible

Protocols of Care




Deviation from a Protocol of Care (non-compliance) creates a potentially unsafe situation

©2014 Congress - May 2011 2012 - Gerrit Ossen - The Netherlands

**Obedience  
is the mother  
of success and  
is wedded to  
safety**

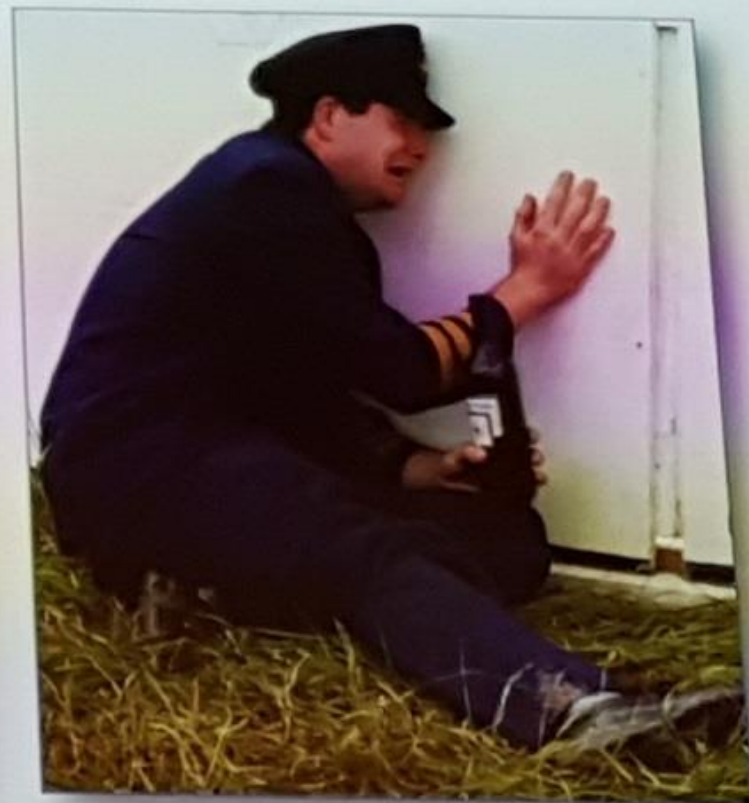
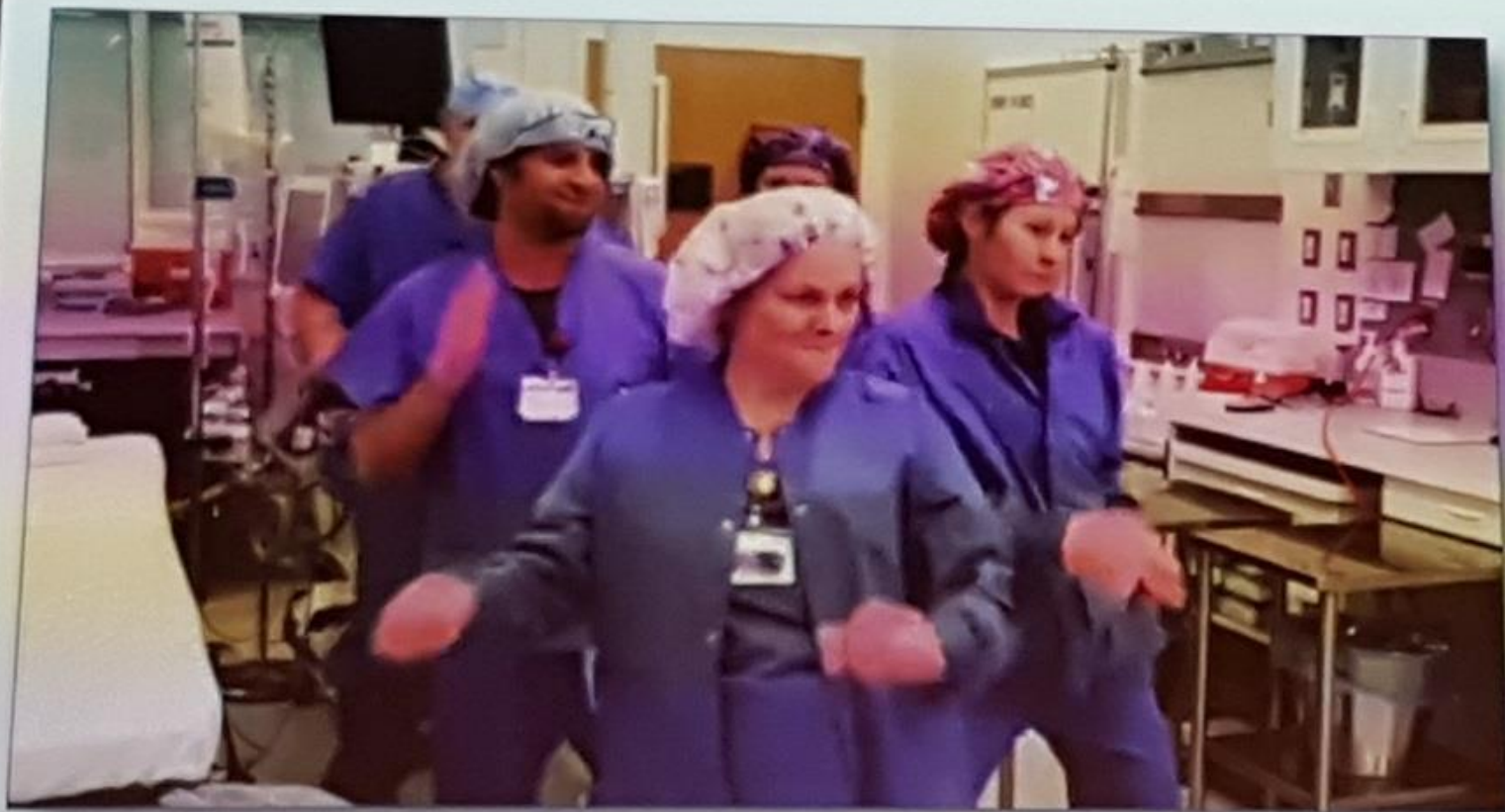
Aeschylus

**Obedience**  
*Doing the right thing*

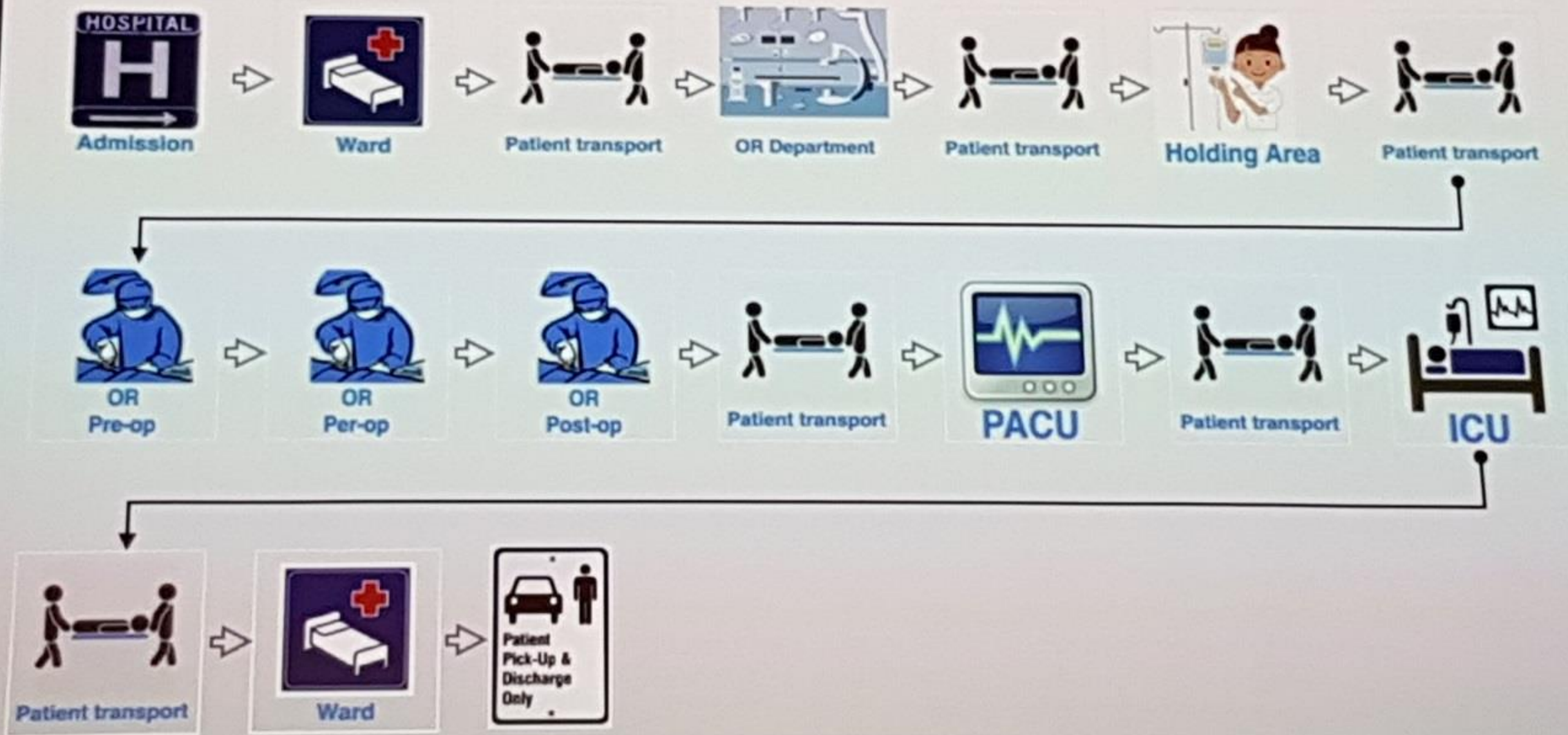




What if we have 98% Compliance

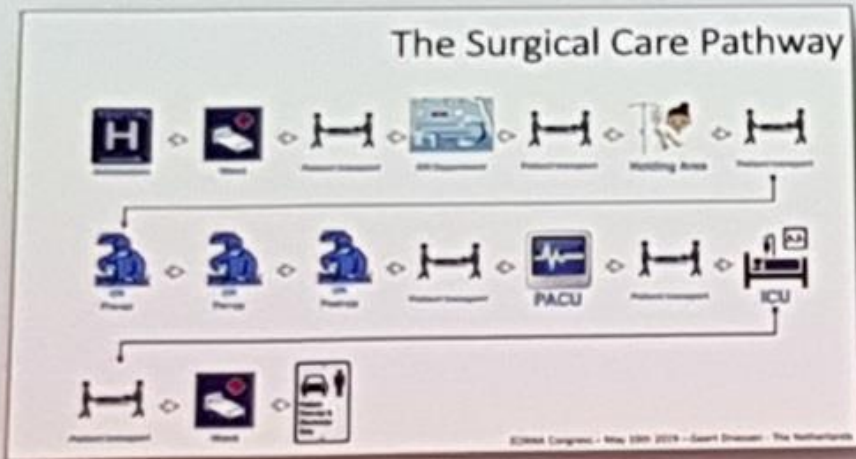


# The Surgical Care Pathway



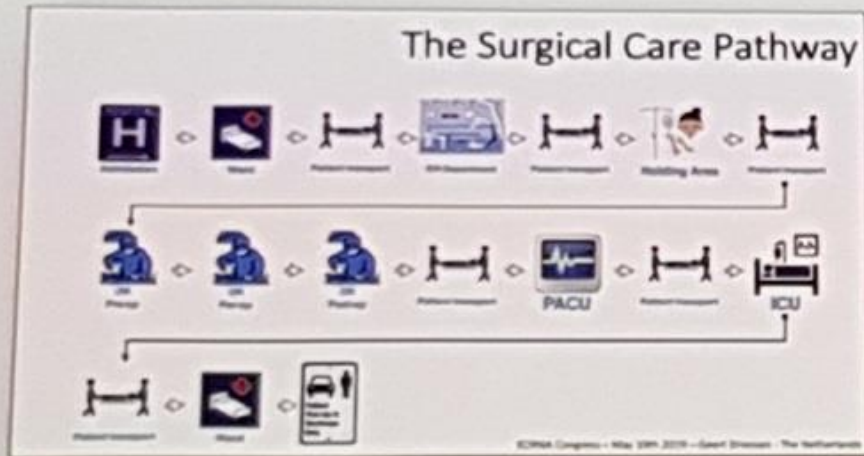


# Objectives of a Care Pathway



- Enhance the **quality** of care across the continuum by improving risk-adjusted patient outcomes,
- Promoting **patient safety**,
- Increasing **patient satisfaction**,
- Optimizing the use of **resources**.

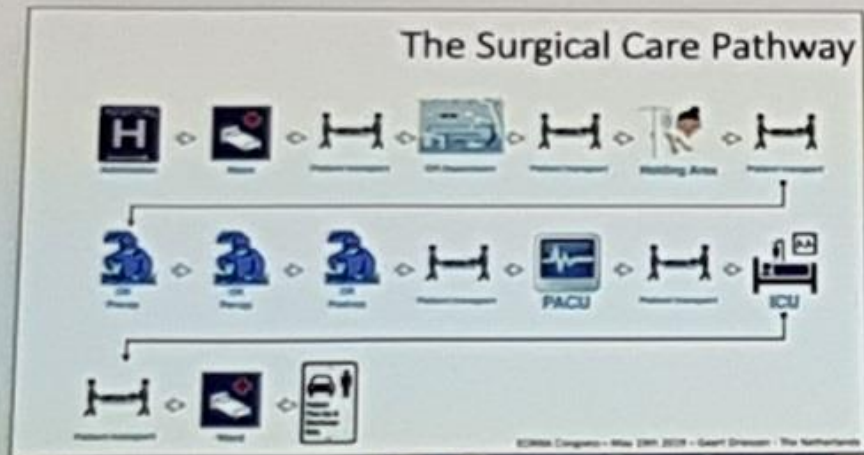
## Problem definition (1)



Care Pathway **elements**, their **content** (protocols of care) and the **sequence** of the elements are more or less **100% similar from hospital to hospital** and are often based on (inter)national, **evidence based guidelines**



## Problem definition (2)

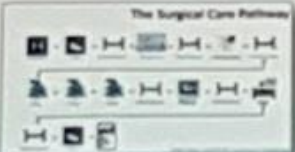


Required **competencies, skills** and **knowledge**, education of healthcare workers are **standardized**, in a **hospital, a region, country** and soon maybe even in **Europe**.

If you do not have the required knowledge, skills or competencies you are not allowed to practice

## Problem definition (3)

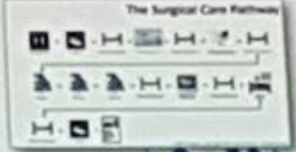
**Problem definition (1)**



Care Pathway **elements**, their **content** (protocols of care) and the **sequence** of the elements are more or less **100%** similar from hospital to hospital and are often based on (inter)national, **evidence based guidelines**

ESRA Congress - May 2009 2028 - Gerrit Smits - The Netherlands

**Problem definition (2)**



Required **competencies, skills and knowledge**, education of healthcare workers are **standardized**, in a hospital, a region, country and soon maybe even in Europe.

*If you do it  
you'll get it  
If you don't do it  
you won't get it*


ESRA Congress - May 2009 2028 - Gerrit Smits - The Netherlands

In spite of all that, the (risk-adjusted) **patient outcome is often different** from one patient to another and/or from one hospital to another



# Avoidable death

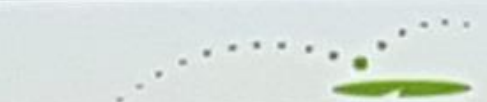
Problem definition (3)



In spite of all that, the (risk-adjusted) **patient outcome is often different** from one patient to another and/or from one hospital to another

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HOSPITAL  
SAFETY GRADE



THE LEAPFROG GROUP


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## FEWER AVOIDABLE PATIENT DEATHS IN AMERICA'S HOSPITALS



2015

205,000\* Deaths



2018

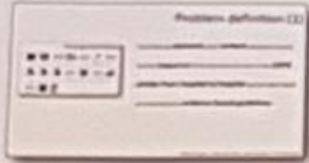
160,000\* Deaths

### BUT YOUR RISK OF DYING DEPENDS ON THE HOSPITAL YOU CHOOSE

The question ....

# WHAT CAN WE DO TO INFLUENCE OUTCOME

Problem definition (3)



In spite of all that, the (risk-adjusted) **patient outcome is often different**  
from one patient to another and/or from one hospital to another

© 2010 Congress - May 2010 2010 © Health Economics, The Netherlands





The question ....



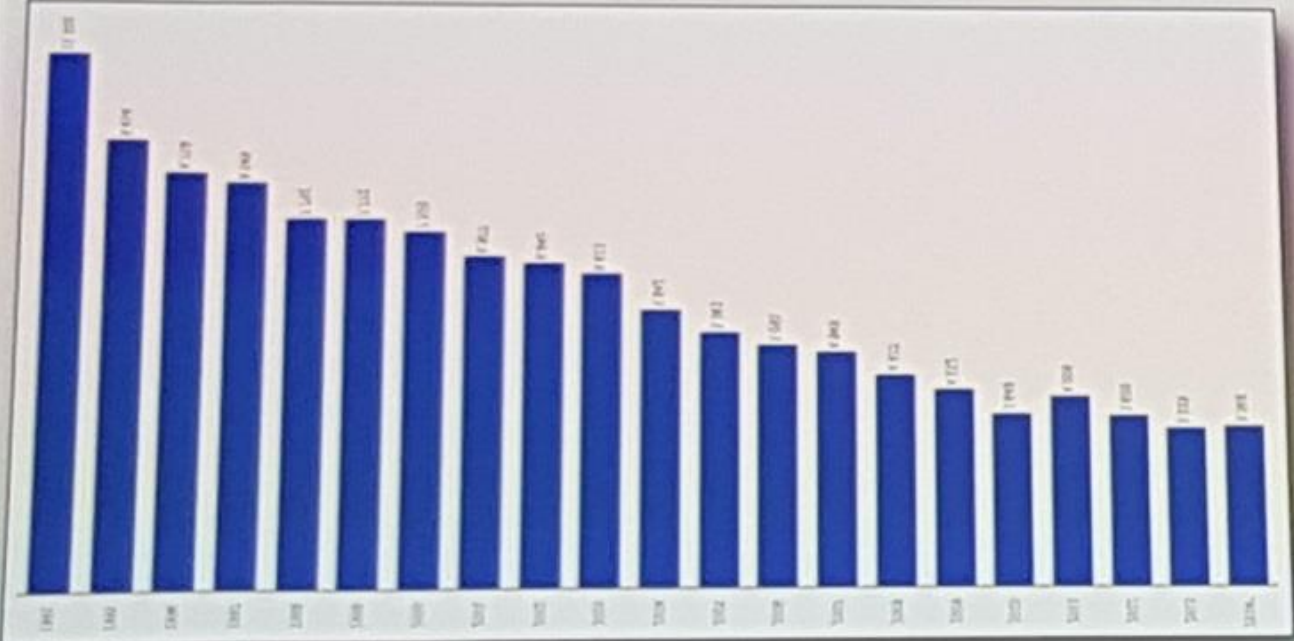
**WHAT CAN WE DO  
TO INFLUENCE  
OUTCOME**

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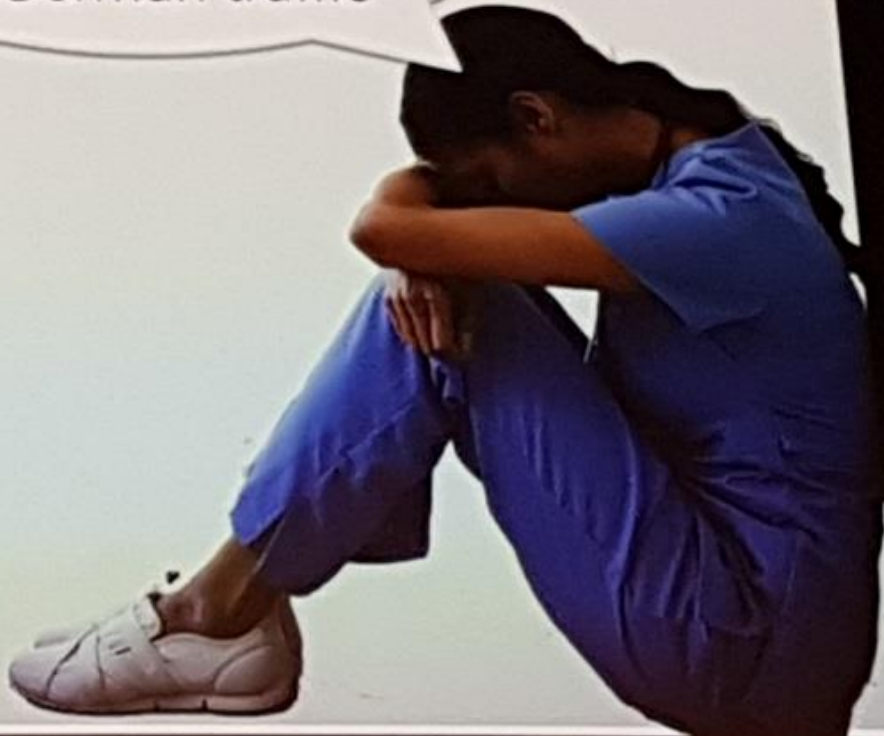
**If you can influence the outcome,  
do the work. If you can't influence  
the outcome, ignore the  
possibility. It's merely a  
distraction.**

**~ Seth Godin**

# Deaths in the German traffic



In 2014,  
3368 people died  
in German traffic





# Avoidable Deaths in German Hospitals

## AOK-Krankenhausreport: Mehr Tote durch Behandlungsfehler als im Straßenverkehr

Von Heike L...

**19.000** Klinikpatienten sterben laut Schätzungen jährlich durch vermeidbare Behandlungsfehler. Dies geht aus dem Krankenhausreport 2014 der AOK hervor. Bessere Hygiene und größere Spezialisierung von Kliniken könnten Abhilfe schaffen.



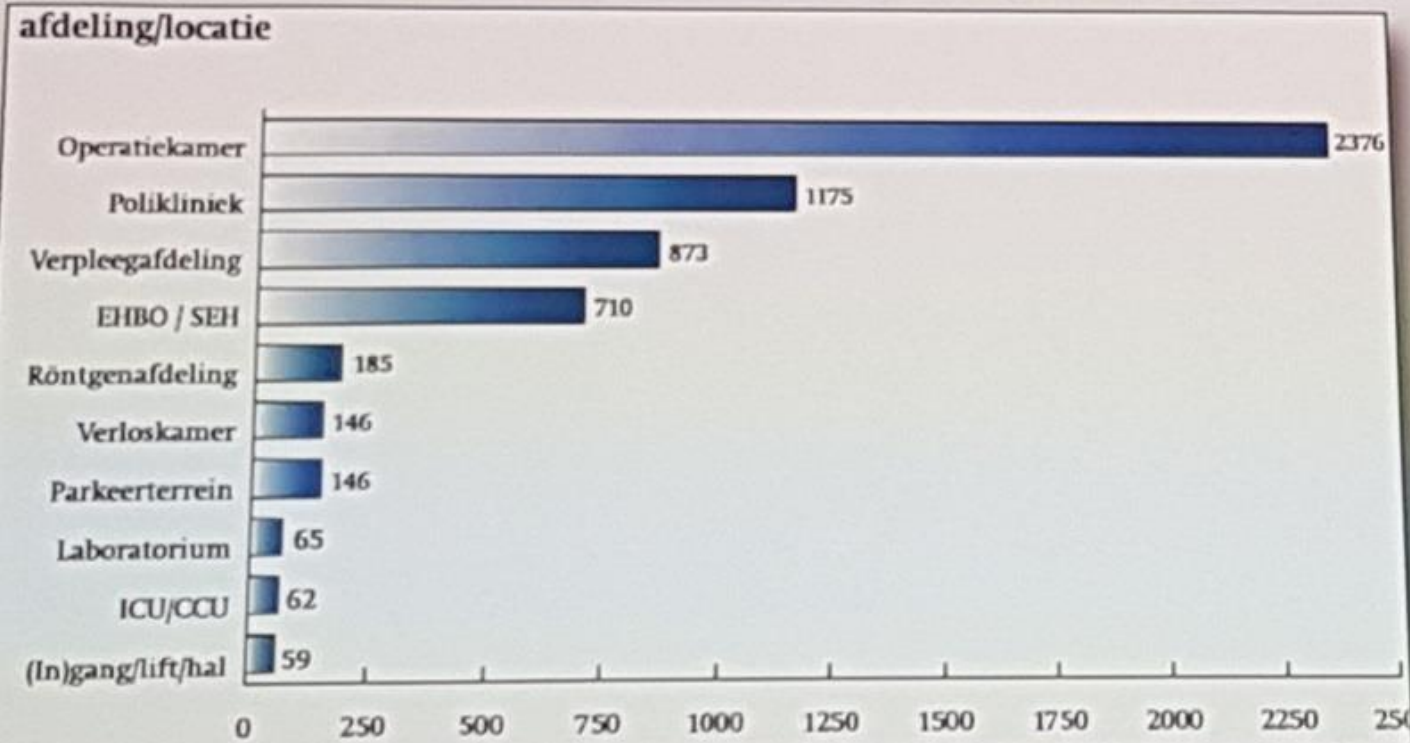
Three stages of Patient Safety

1. The patient is safe
2. The patient is relieved
3. The patient is **dead**

Florence Nightingale, Sister on Nursing, Water on Hospital

ECRMA Congress - May 29th 2019 - Gerrit Drenth - The Netherlands

# Where does (did) it go wrong (The Netherlands)

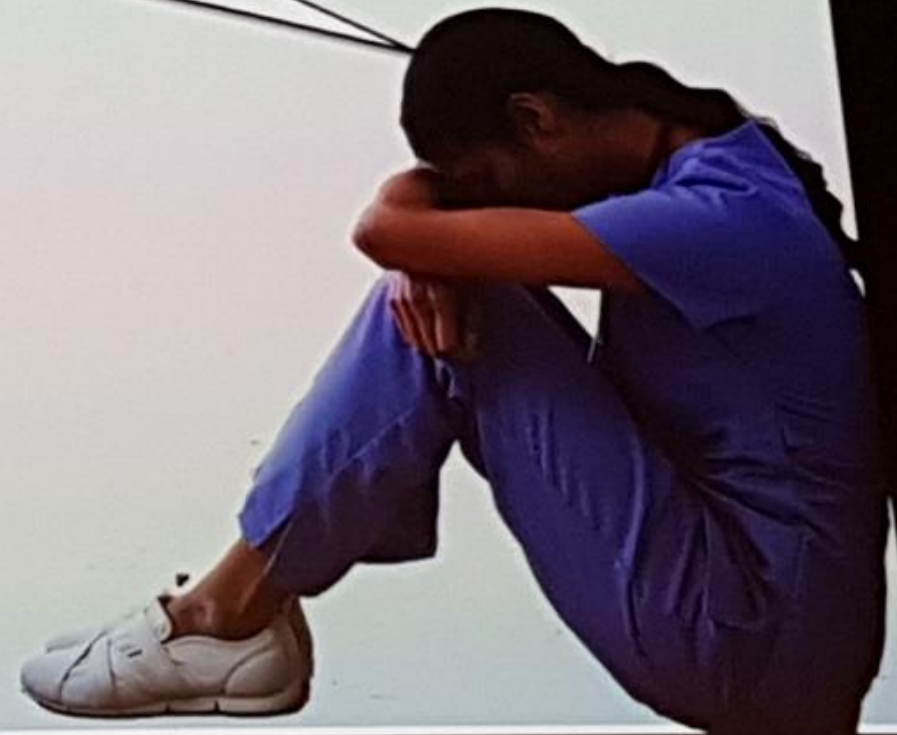
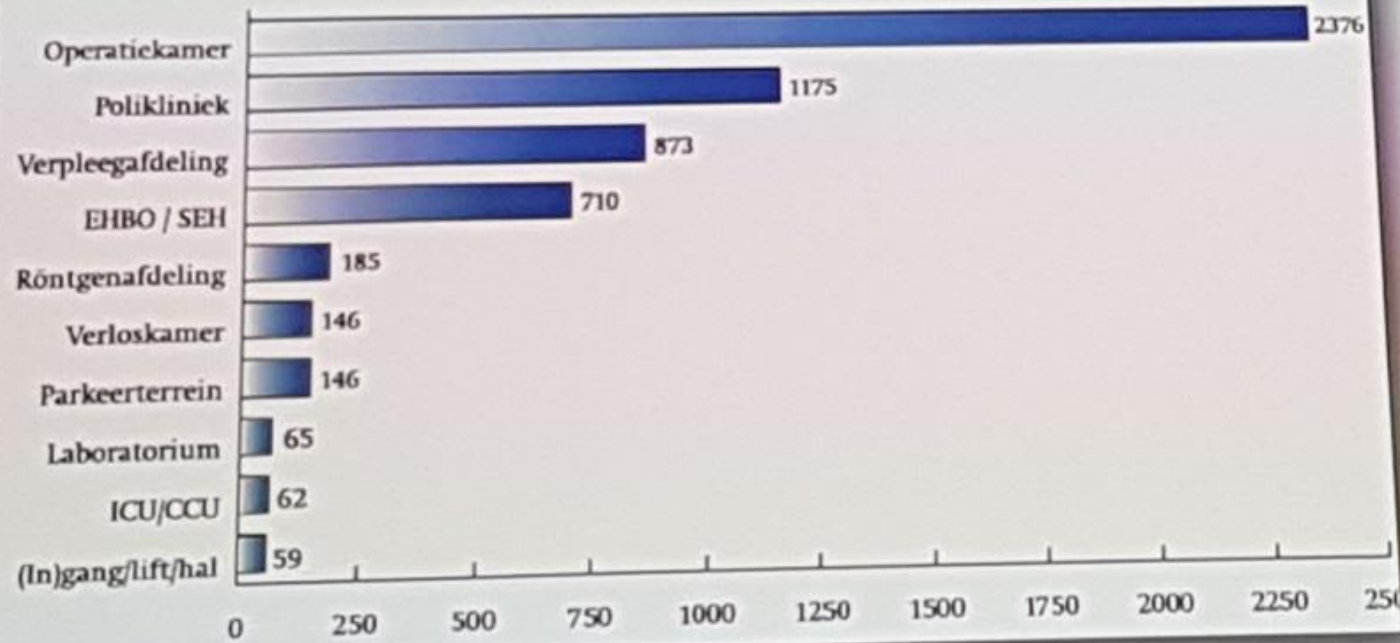


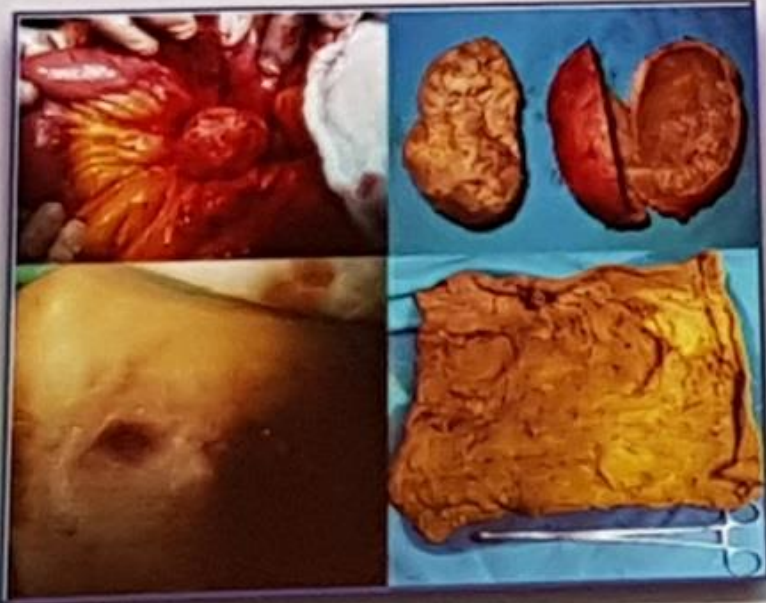


# Where does (did) it go wrong (The Netherlands)

The OR is the department with the highest risk on errors and adverse events in the hospital

afdeling/locatie





# The Operating Room

*In spite of Quality Systems*

## Things go Wrong

- Accidents
- Near Accidents
- Complications



## The Operating Room *In spite of Quality Systems*



### **Complication**

*A process deviation with temporary or permanent negative physical consequences for the patient **of which the cause is unknown.***

# The Operating Room

## *In spite of Quality Systems*



### The Operating Room

#### *In spite of Quality Systems*

#### Complication

*A process deviation with temporary or permanent negative physical consequences for the patient of which the cause is unknown.*

EDINA Congress - May 20th 2018 - Smart Devices - The Netherlands



Would you consider a Surgical Site Infection a possible complication of surgery ?

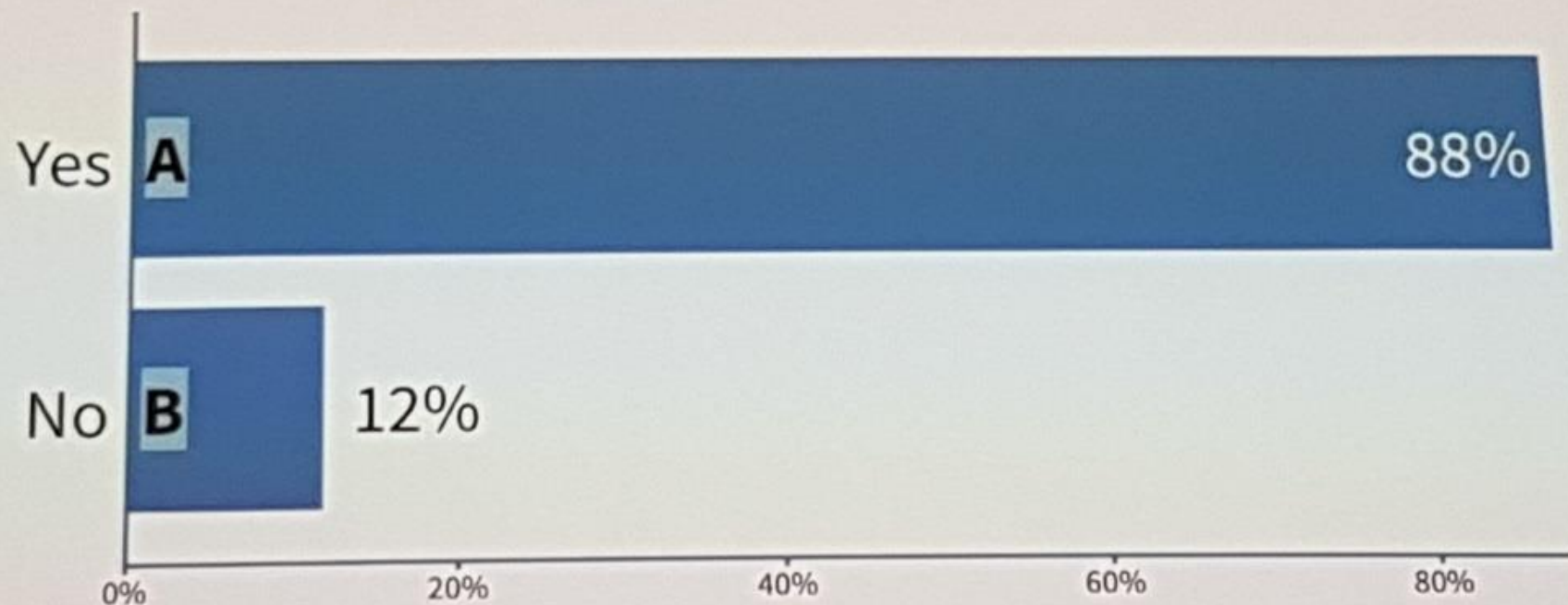


# Is a SSI a complication of a surgical procedure ?

Would you consider a SSI as a **COMPLICATION** of a surgical procedure ?

Respond at [PollEv.com/geertdriesse039](https://www.poll-ev.com/geertdriesse039)

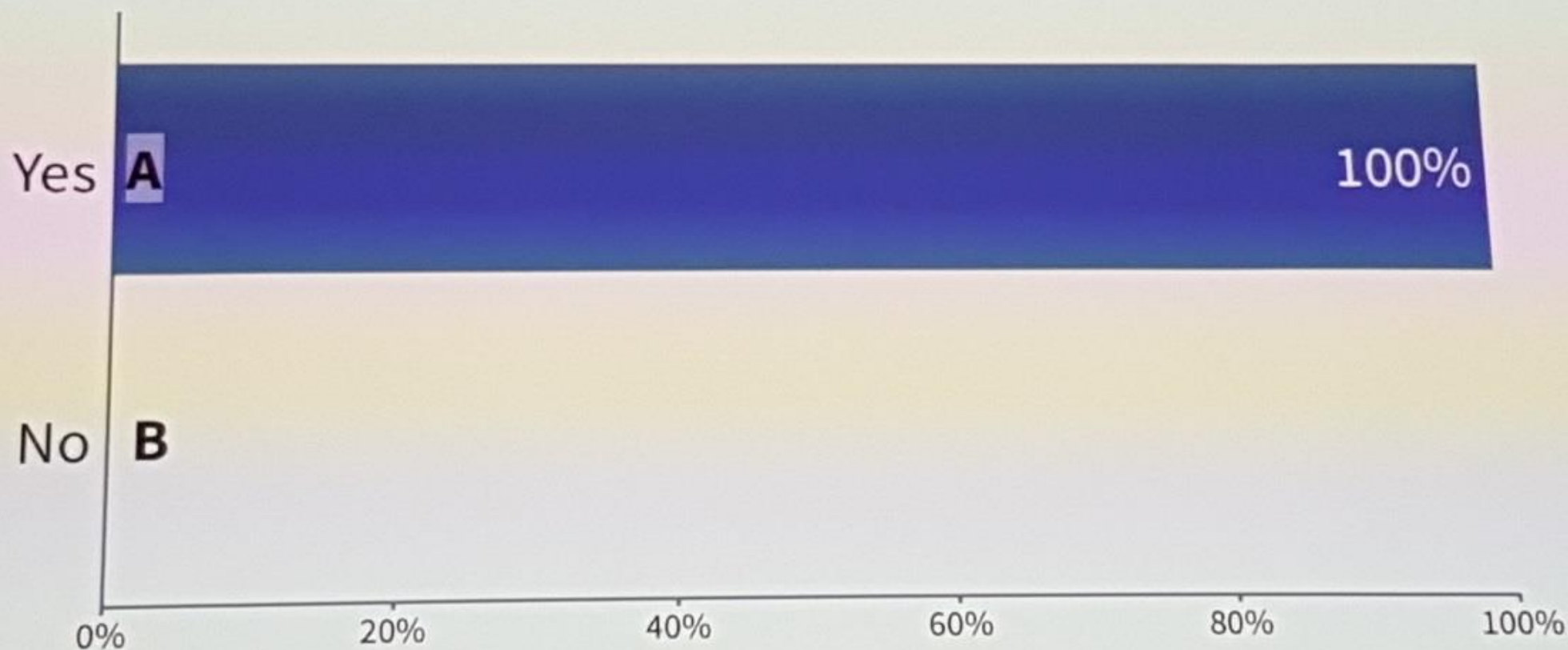
Text **GEERTDRIESSE039** to **079 807 15 49** once to join, then **A** or **B**



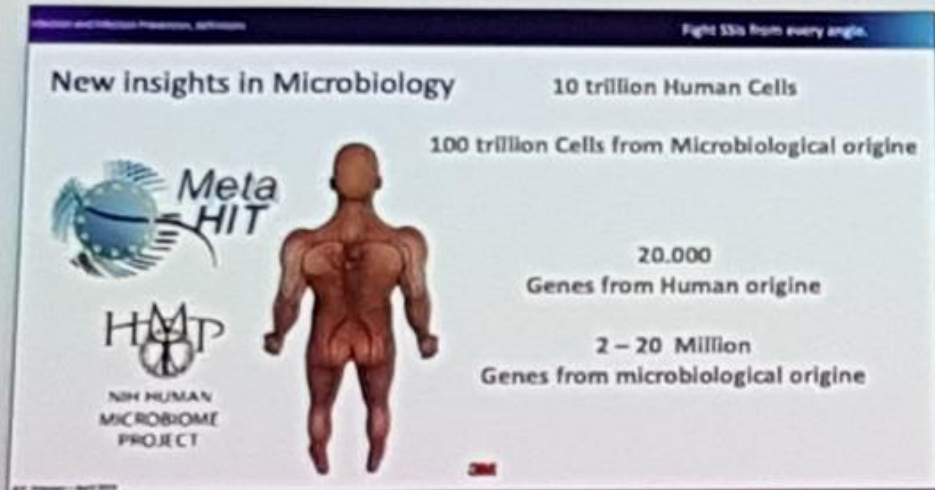
Look at me ..... Do you think that I am human ?

Look at me .... :-) .... Do you think that I am HUMAN ?

Respond at [PollEv.com/geertdriessse039](https://poll-ev.com/geertdriessse039) Text **GEERTDRIESSE039** to **079 807 15 49** once to join, then **A** or **B**





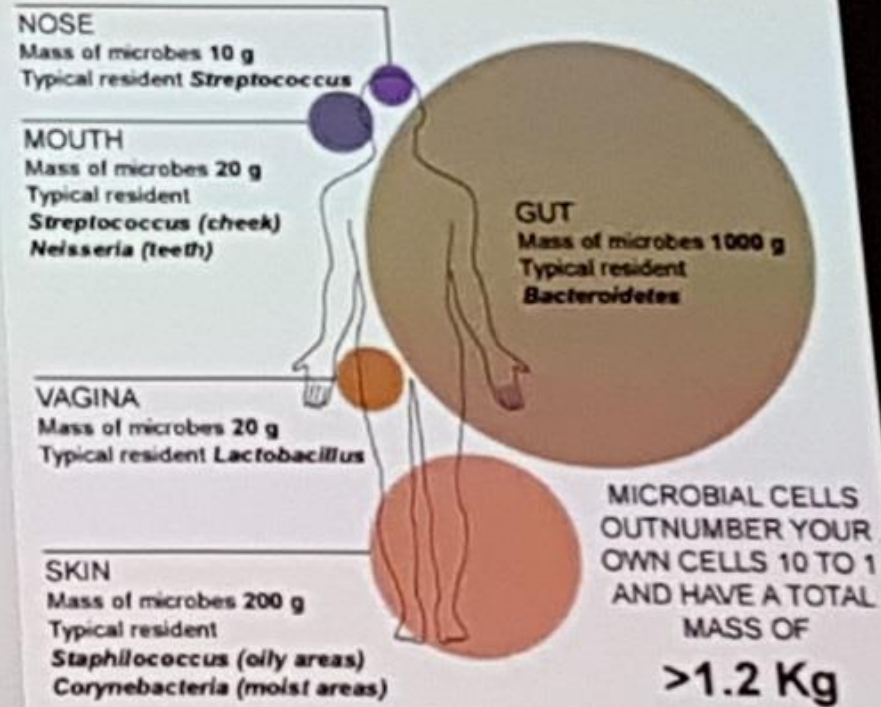


# 1,2 Kg. Microbial Cells

Meet your microbiome

© NewScientist

The bacteria that call you home



# 1,2 Kg. Microbial Cells

## Meet your microbiome

© NewScientist

The bacteria that call you home

### NOSE

Mass of microbes 10 g

Typical resident *Streptococcus*

### MOUTH

Mass of microbes 20 g

Typical resident

*Streptococcus* (cheek)

*Neisseria* (teeth)

### VAGINA

Mass of microbes 20 g

Typical resident *Lactobacillus*

### SKIN

Mass of microbes 200 g

Typical resident

*Staphylococcus* (oily areas)

*Corynebacteria* (moist areas)

### GUT

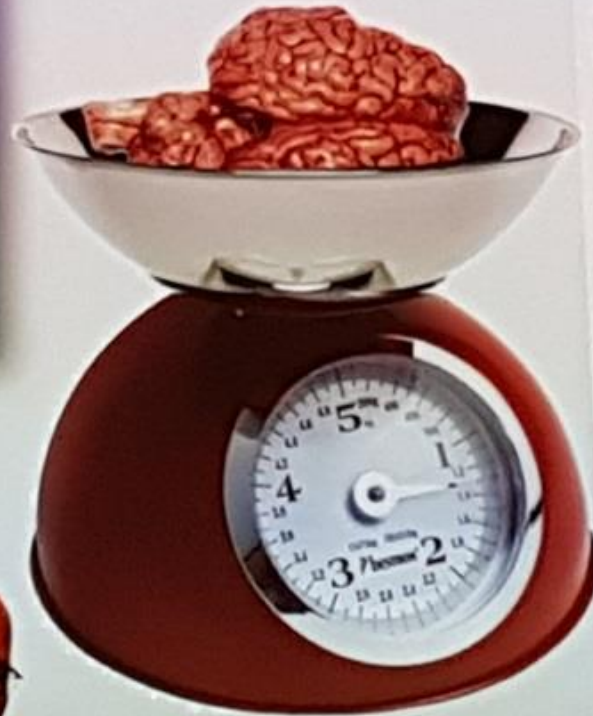
Mass of microbes 1000 g

Typical resident

*Bacteroidetes*

MICROBIAL CELLS  
OUTNUMBER YOUR  
OWN CELLS 10 TO 1  
AND WEIGHT  
EQUALS

MASS OF  
**>1.2 Kg**



Meta HIT

HMP  
NIH HUMAN  
MICROBIOME  
PROJECT

10 trillion Human Cells

100 trillion Cells from Microbiological origine

20,000  
Genes from Human origine

2 - 20 Million  
Genes from microbiological origine

Fight SBIs from every angle.





## Point Prevalence Surveys



In two EU-wide Point Prevalence Surveys, ECDC found that **1 in 15 patients** in (acute care) hospitals had **at least 1 Healthcare Associated Infection**



# 6,6%

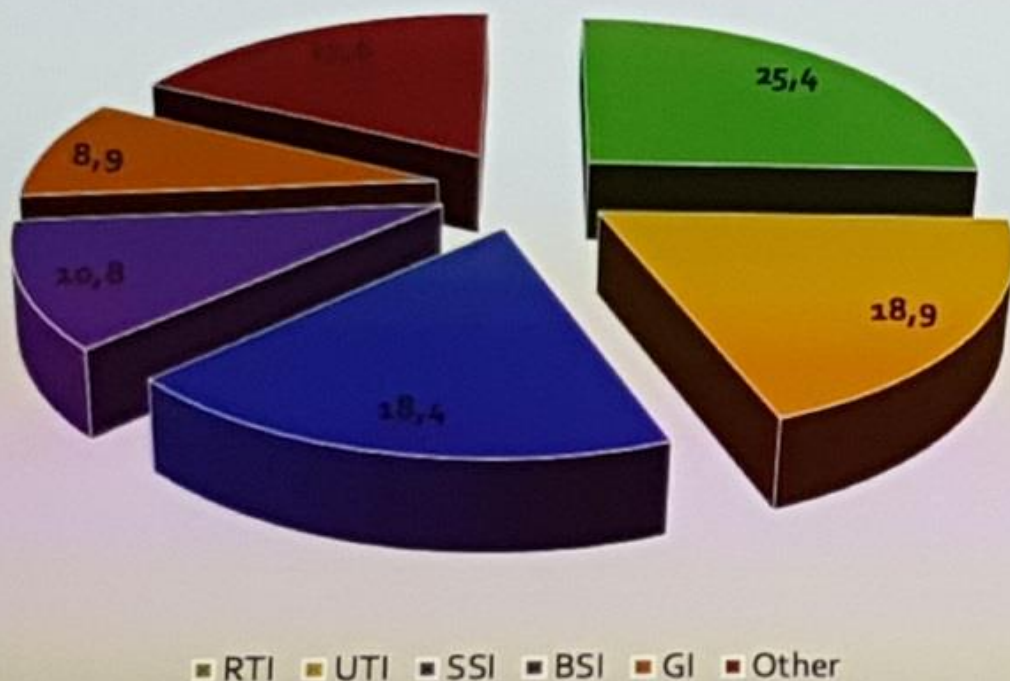
of all patients  
in (acute care) hospitals  
had at least  
1 HAI

### References:

1. Suetens Carl et al. Euro Surveill. 2018;23(46):pii=1800516. <https://doi.org/10.2807/1560-46.1800516>

# Healthcare Associated Infections in Europe

PPS ECDC 2018  
Healthcare Associated Infections In Europe



The same Point Prevalence Study found, that Surgical Site Infections were the *third most common Healthcare Associated Infection* in European countries.

## References:

1. Suetens Carl et al. Euro Surveill. 2018;23(46):pii=1800516. <https://doi.org/10.2807/1560-7917.ES.2018.23.46.1800516>



# Surgical Site Infections

## Mortality

- SSI is associated with a mortality rate of 3%
- 75% of SSI- associated deaths are directly attributable to the SSI

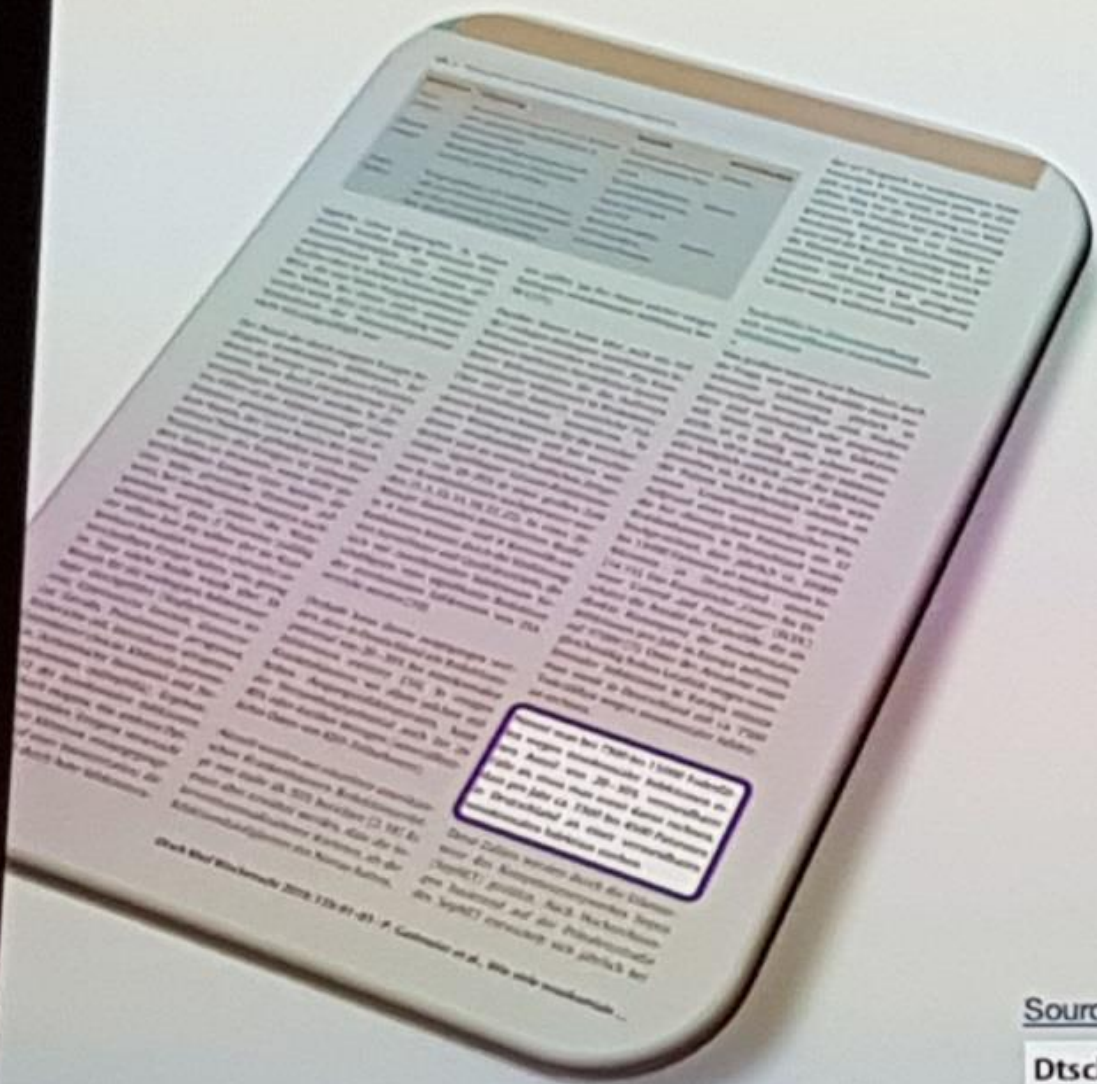


## Avoidable Infections

**NICE** states that the **majority of SSI's are preventable**, we can read in a German publication (Gastmeier et al. 2010) that **20 - 30% of all HAI** can be prevented

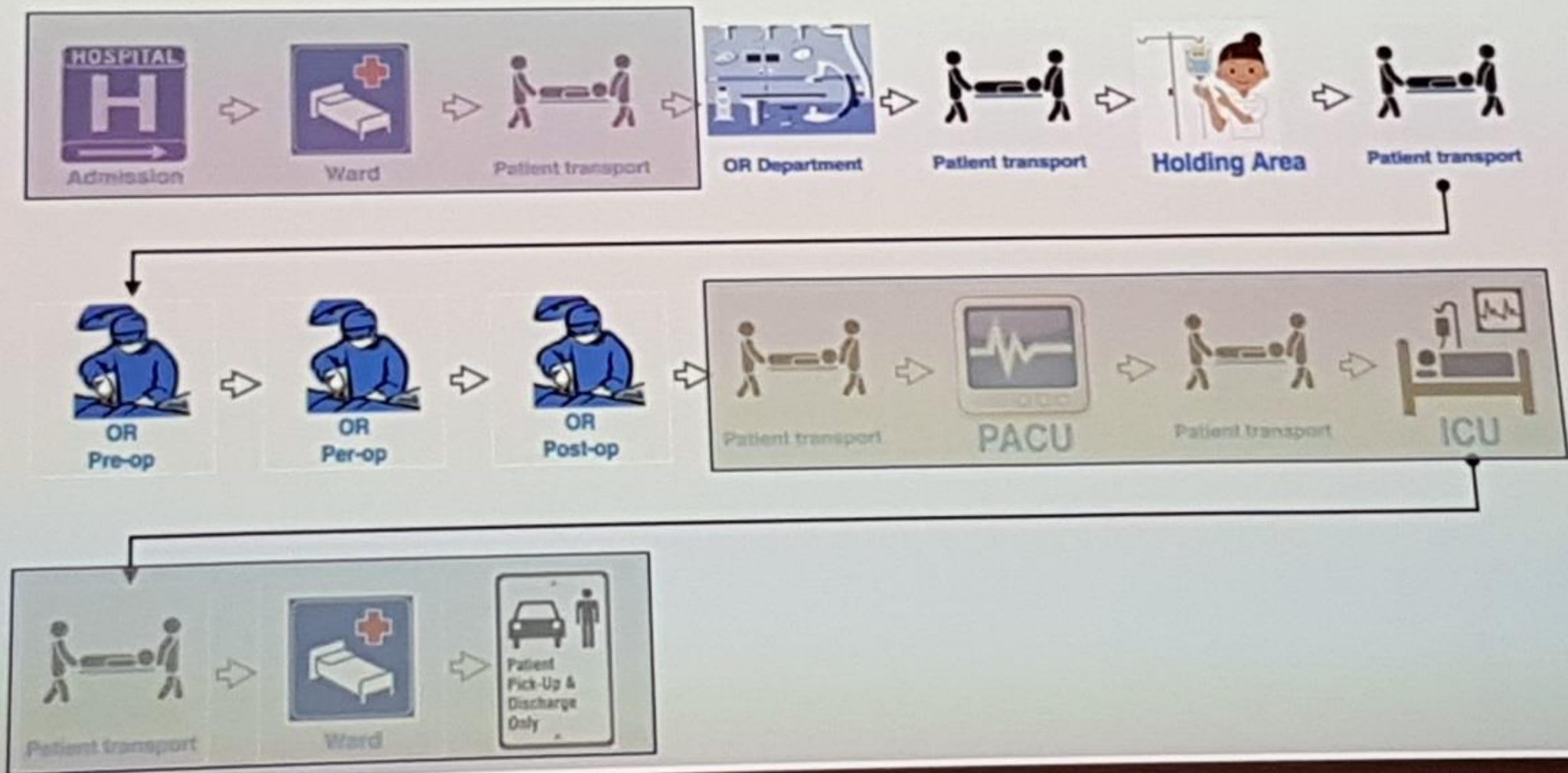
Source: <https://www.nice.org.uk/guidance/cq74/chapter/introduction>

Dtsch Med Wochenschr 2010; 135: 91–93 · P. Gastmeier et al., Wie viele nosokomiale

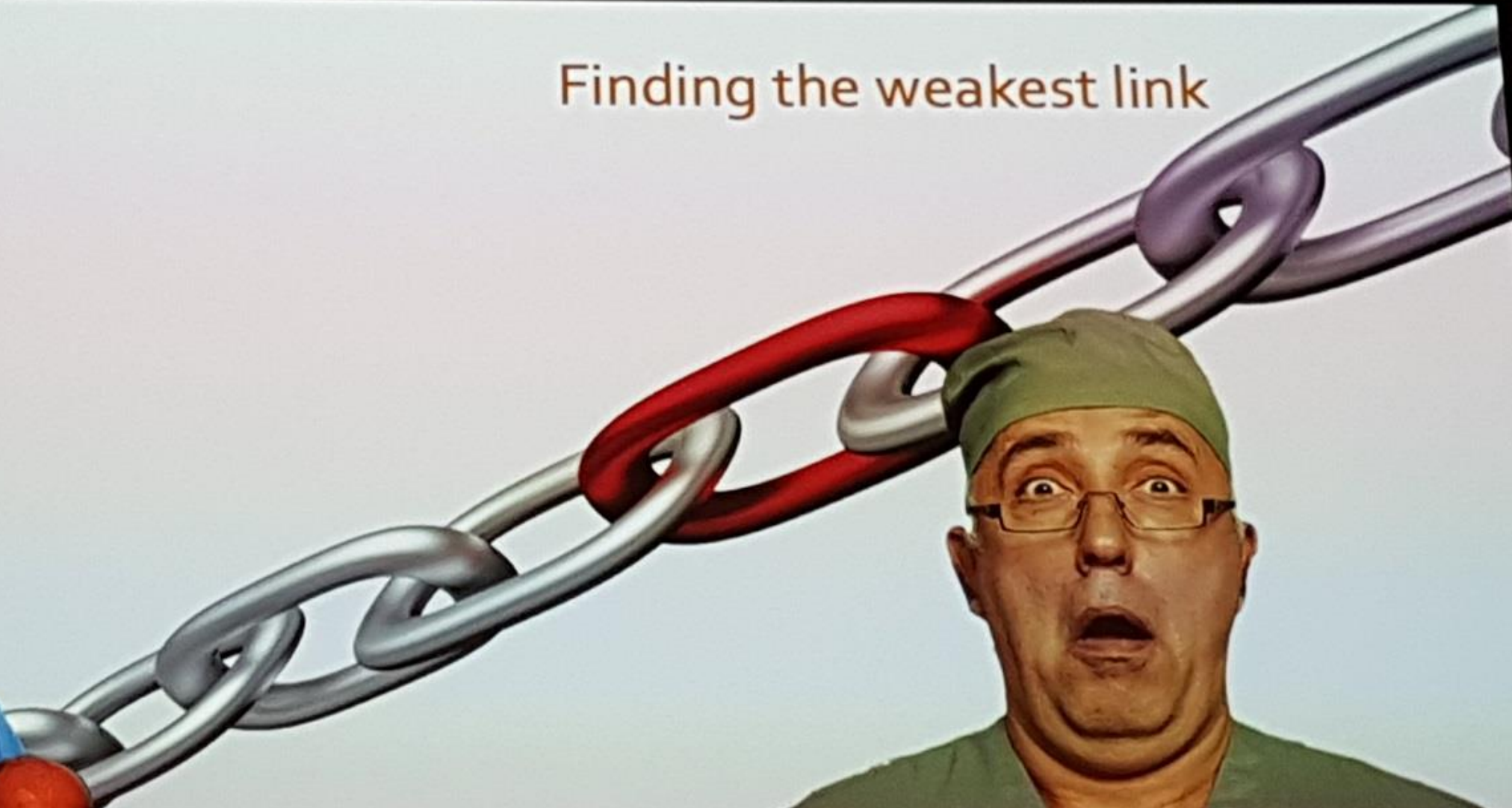
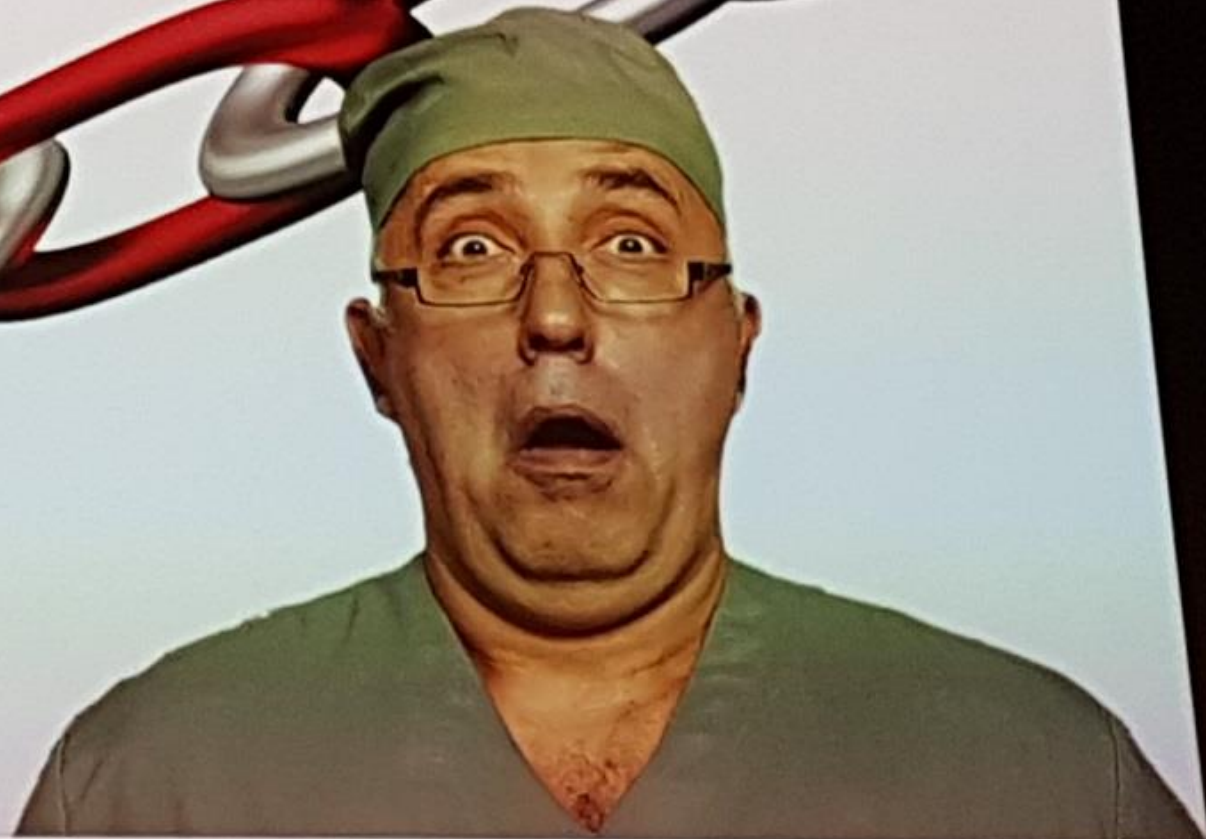
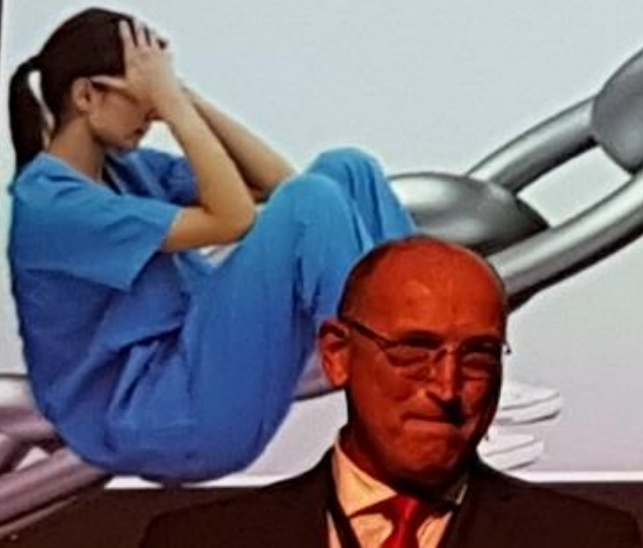




# The Surgical Care Pathway



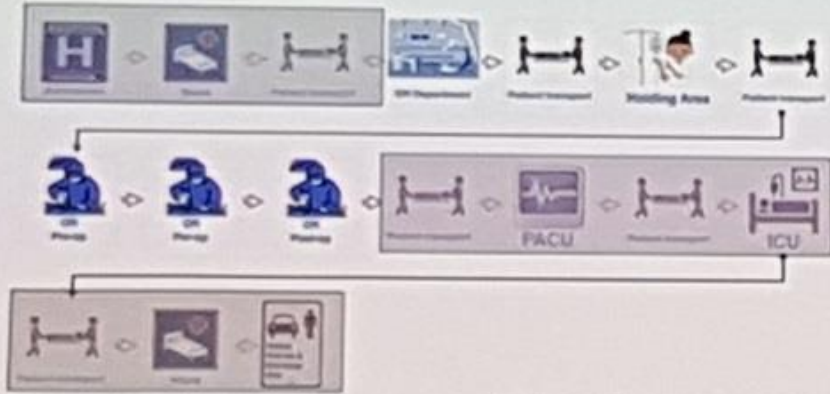
# Finding the weakest link



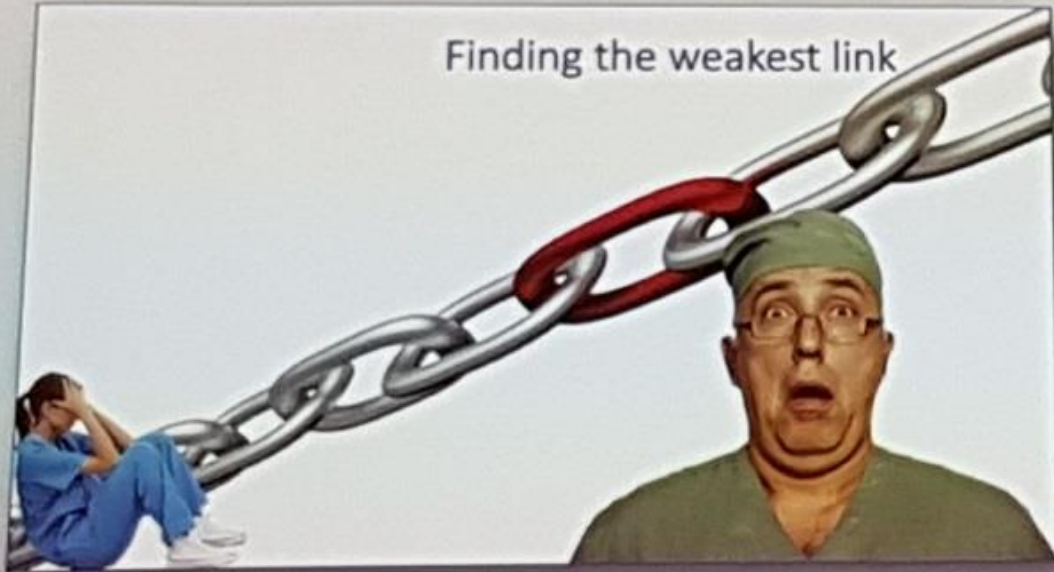


## Safety in Practice

### The Surgical Care Pathway

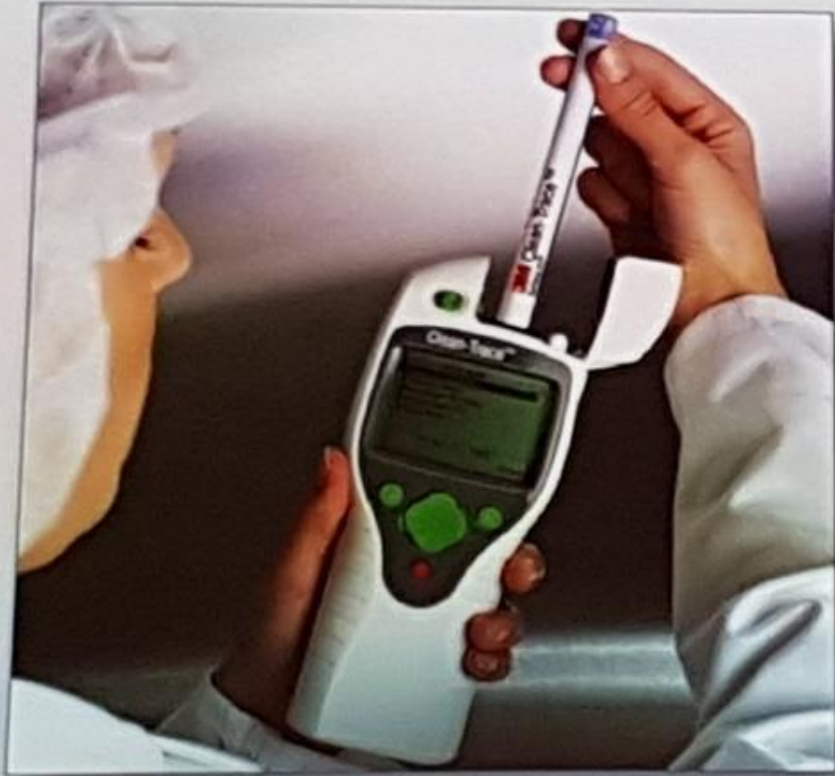


### Finding the weakest link



- Cleanliness of the OR
- Surgical attire
- Handhygiene and surgical hand antiseptis
- Hair removal
- Patients' skin prep and adherence to manufacturers' instructions
- Preventing inadvertent hypothermia
- Environmental cleaning
- Aseptic technique

## Cleanliness of the OR

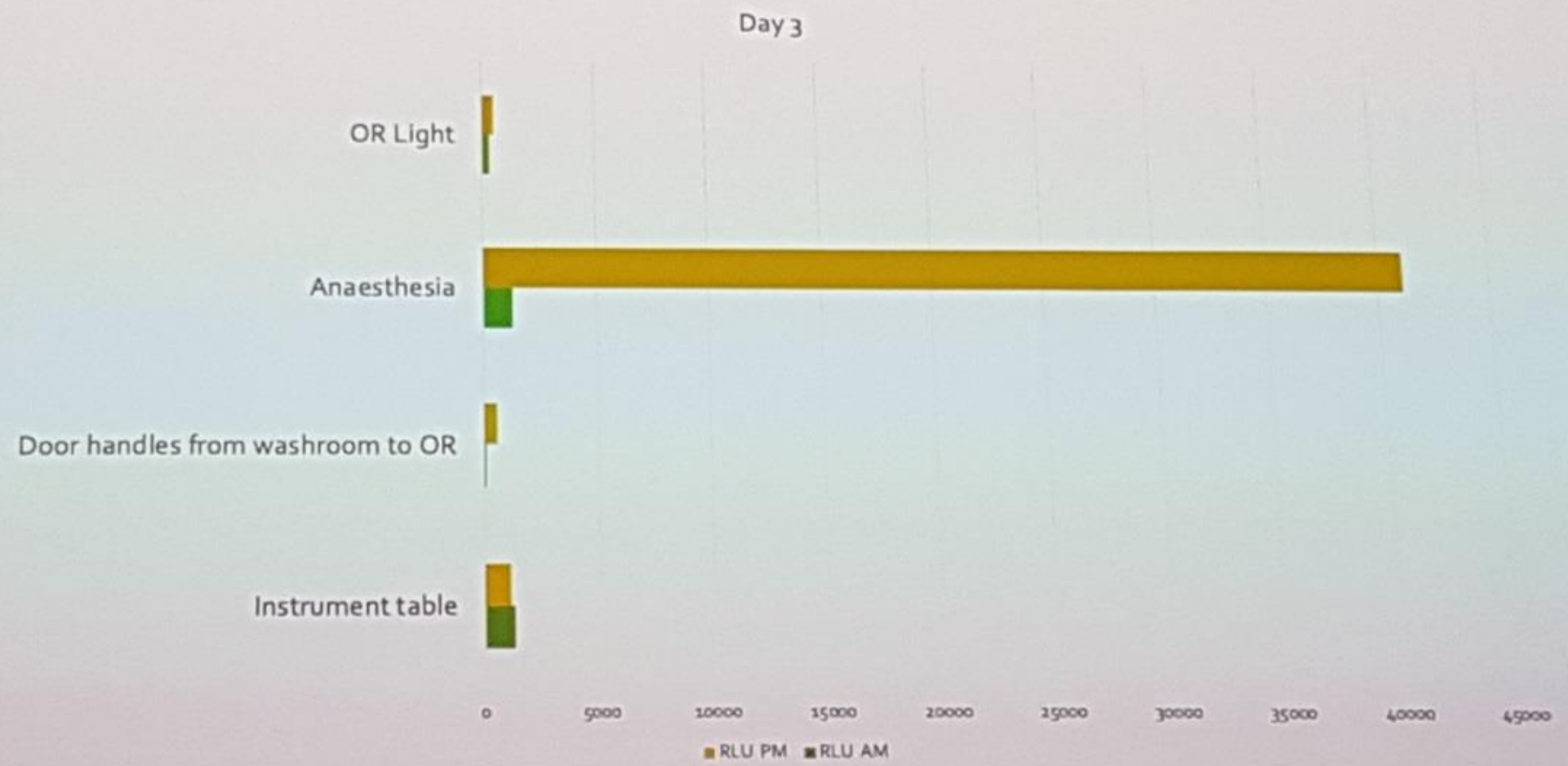


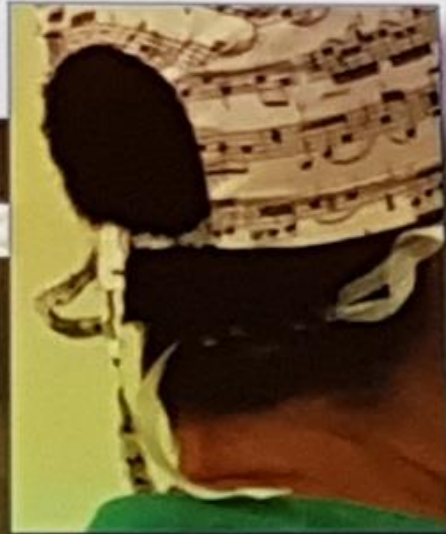
The Clean-Trace System can quantify the cleanliness of a surface or lumen sample using Adenosine TriPhosphate (ATP) bioluminescence.

The higher the RLU number, the more contaminated the sample.



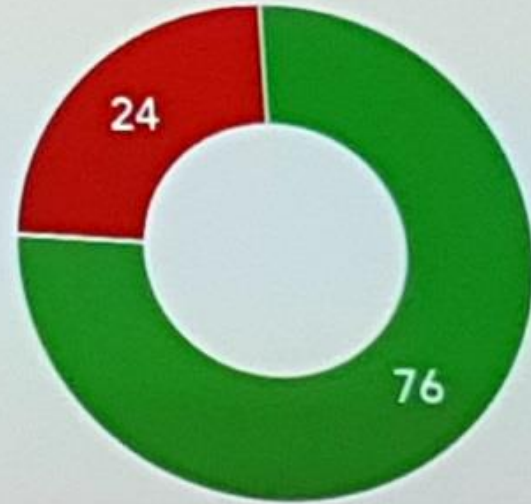
# Cleanliness of the OR





## Surgical attire

Wears the correct head cover for covering ALL head and facial hair



■ YES ■ NO



## Surgical attire



Surgical mask is removed without touching front side of the mask and hand antisepsis is carried out

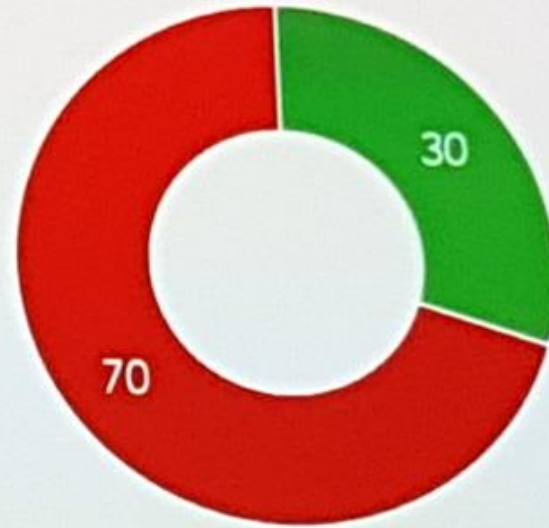


■ YES ■ NO

## Hand Hygiene (general)



After removing non sterile gloves hand  
antiseptis is carried out

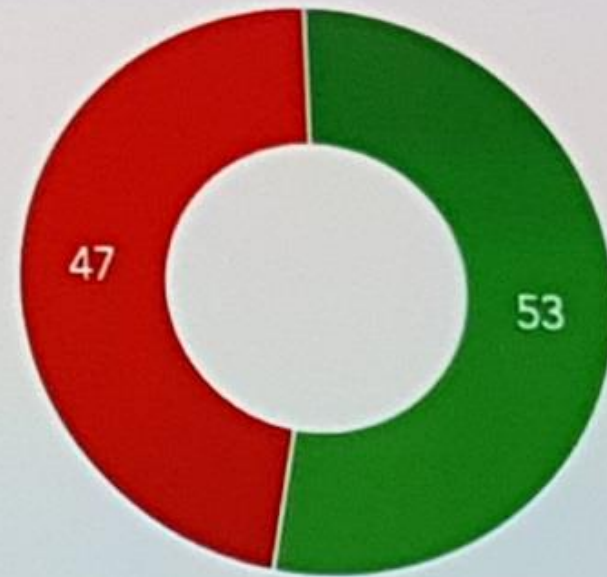


■ YES ■ NO



## Hand Hygiene (general)

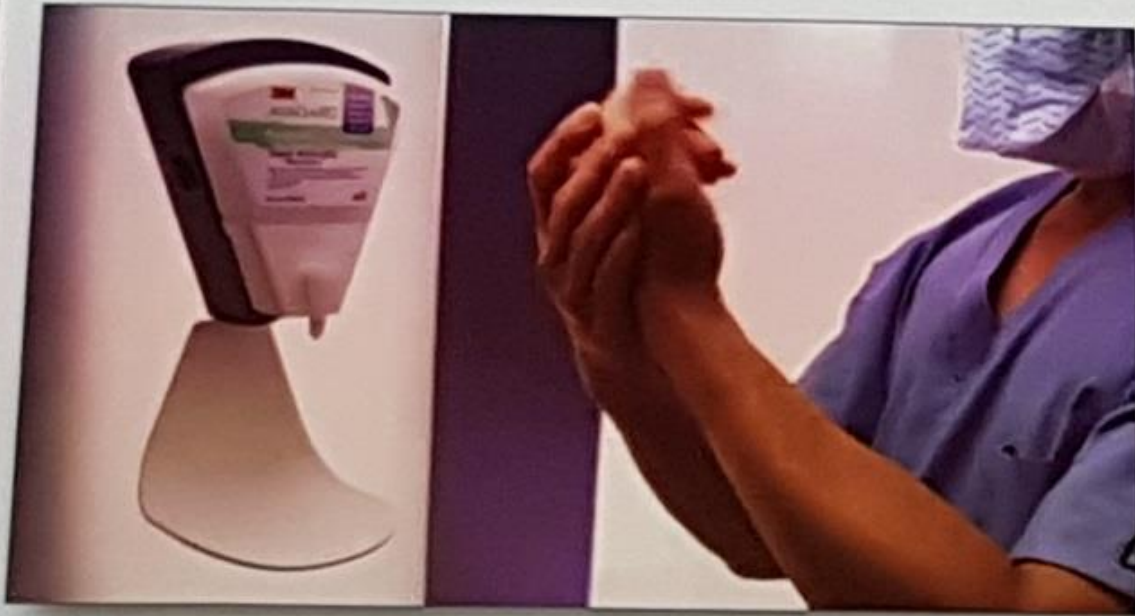
Skin lotion / moisturizer is available



■ YES ■ NO



# Surgical Hand Hygiene



Surgical hand antisepsis  
is carried out according to the hospital  
protocol

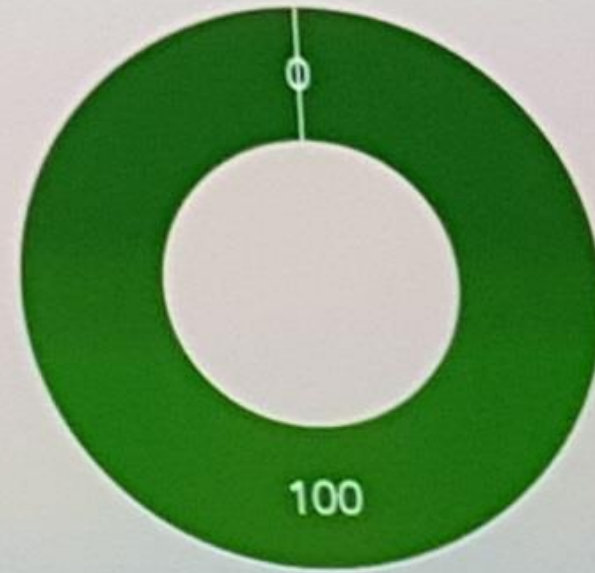


■ YES ■ NO



## Hair Removal

If hair has to be removed, a surgical clipper is used

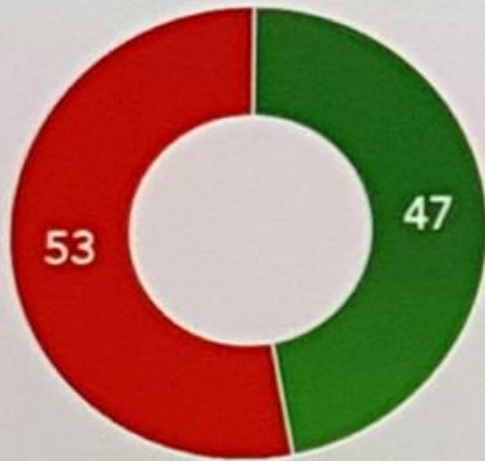


■ YES ■ NO

**But please  
DO NOT  
clip in the  
Operating Room**

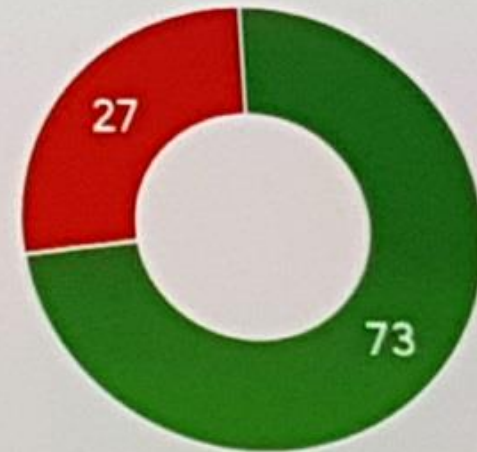
# Skin Antisepsis

Patient skin antisepsis according to existing rules



■ YES ■ NO

Patient skin antisepsis antiseptic is allowed to dry



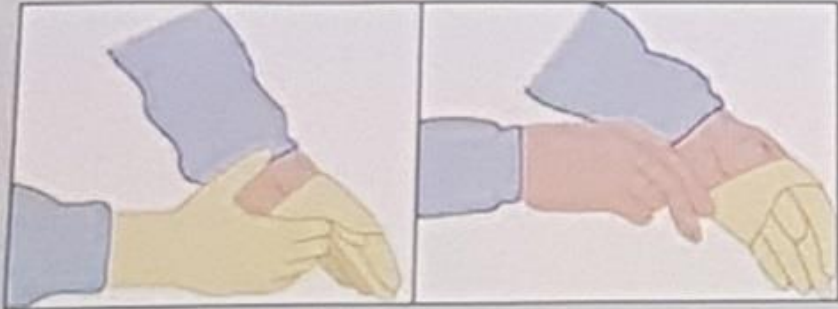
■ YES ■ NO



# Gloving



Closed gloving

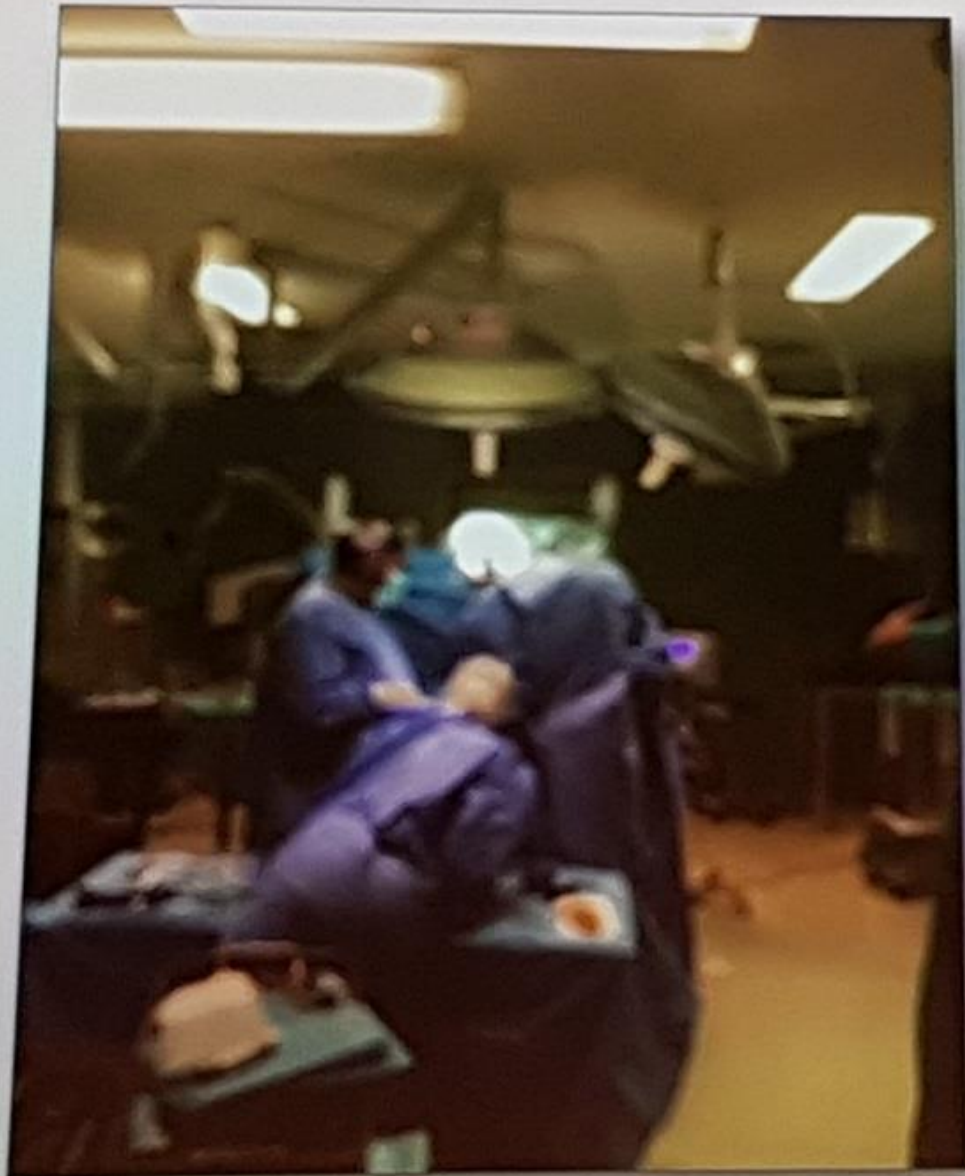


Open gloving

Closed gloving technique is used



■ YES ■ NO



## Create / Maintain Sterile Surface

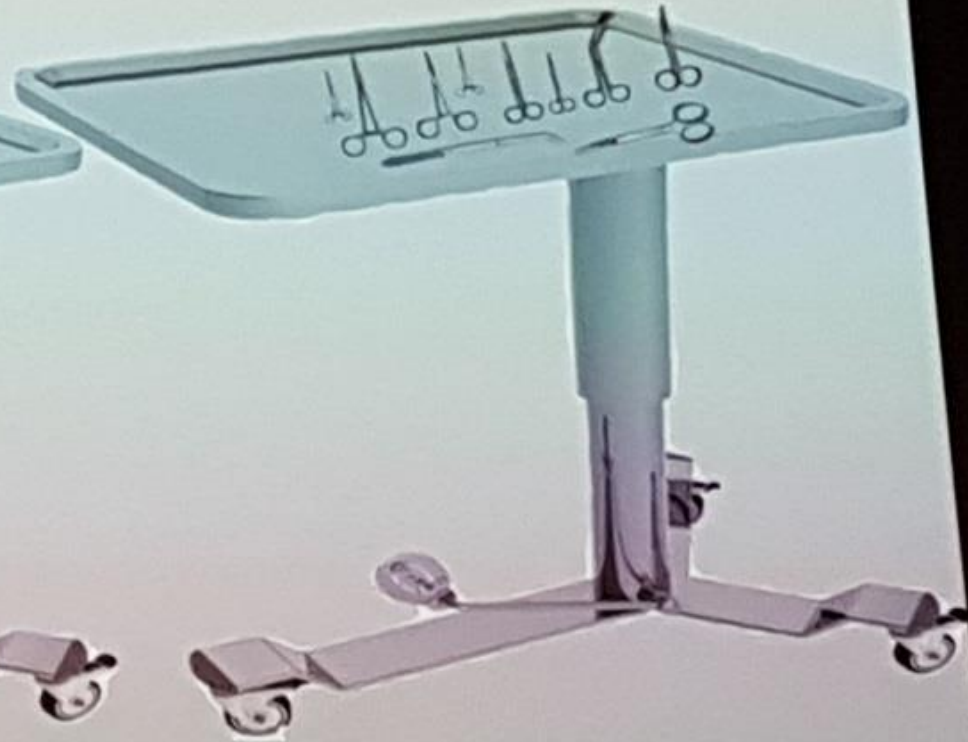
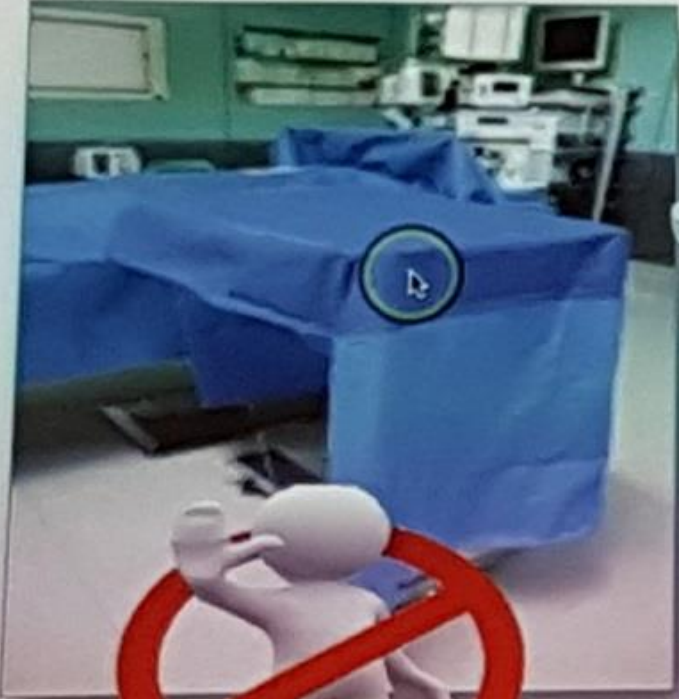
A sterile surface is created and maintained



■ YES ■ NO



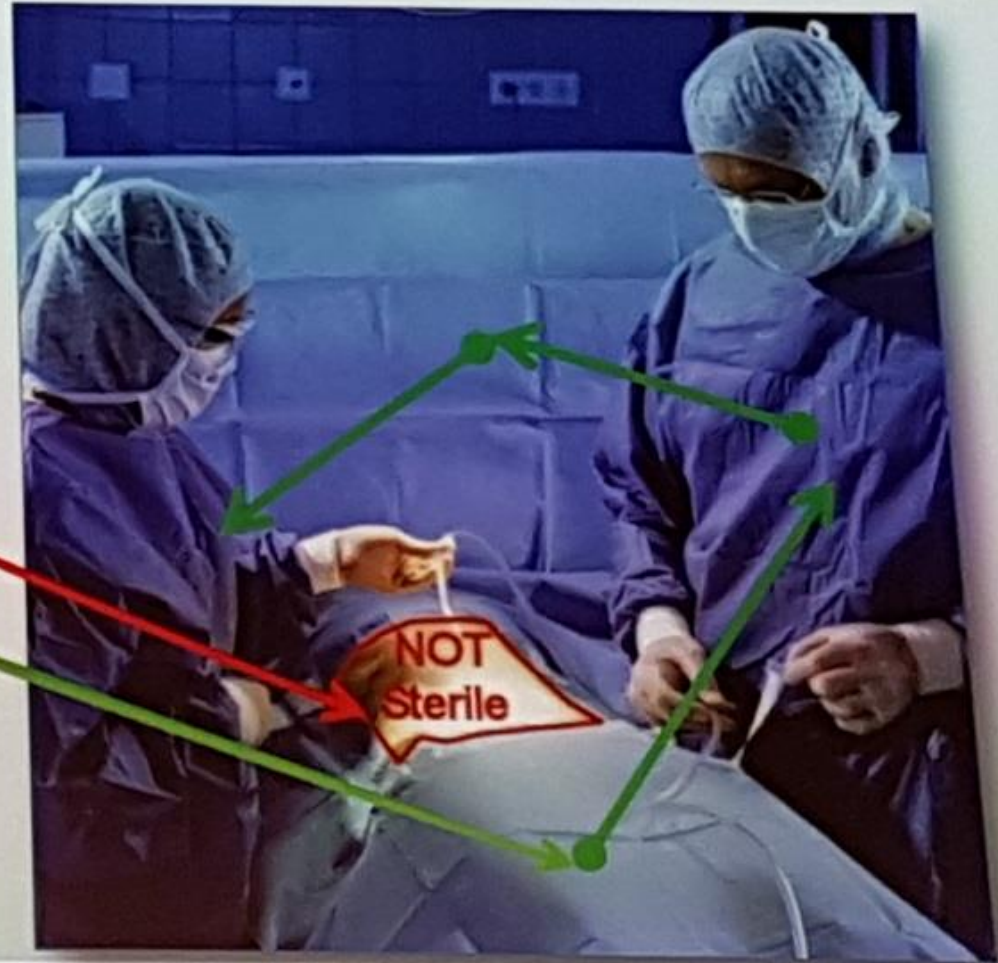
# Create / Maintain Sterile Surface



# Decontamination, surgical drapes and "Sterile Field"



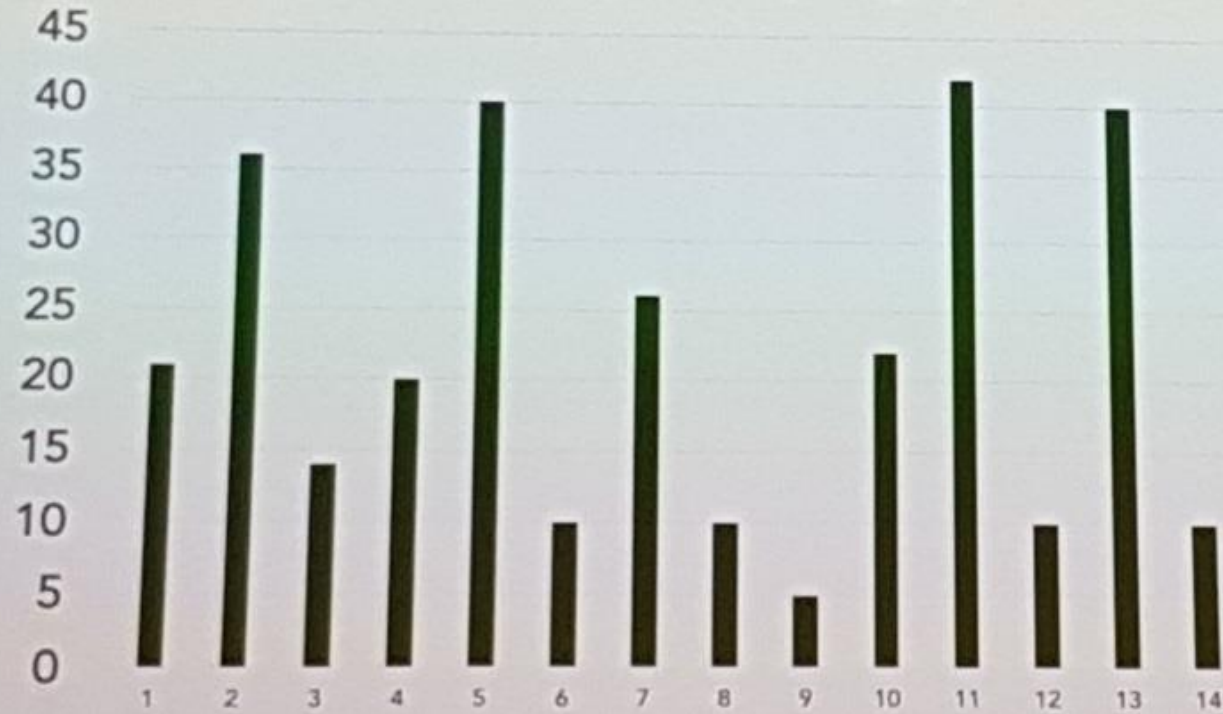
Everything is **STERILE**  
**EXCEPT** the place where  
the incision will be made





# Aseptic Technique etc.

## Door openings during surgery



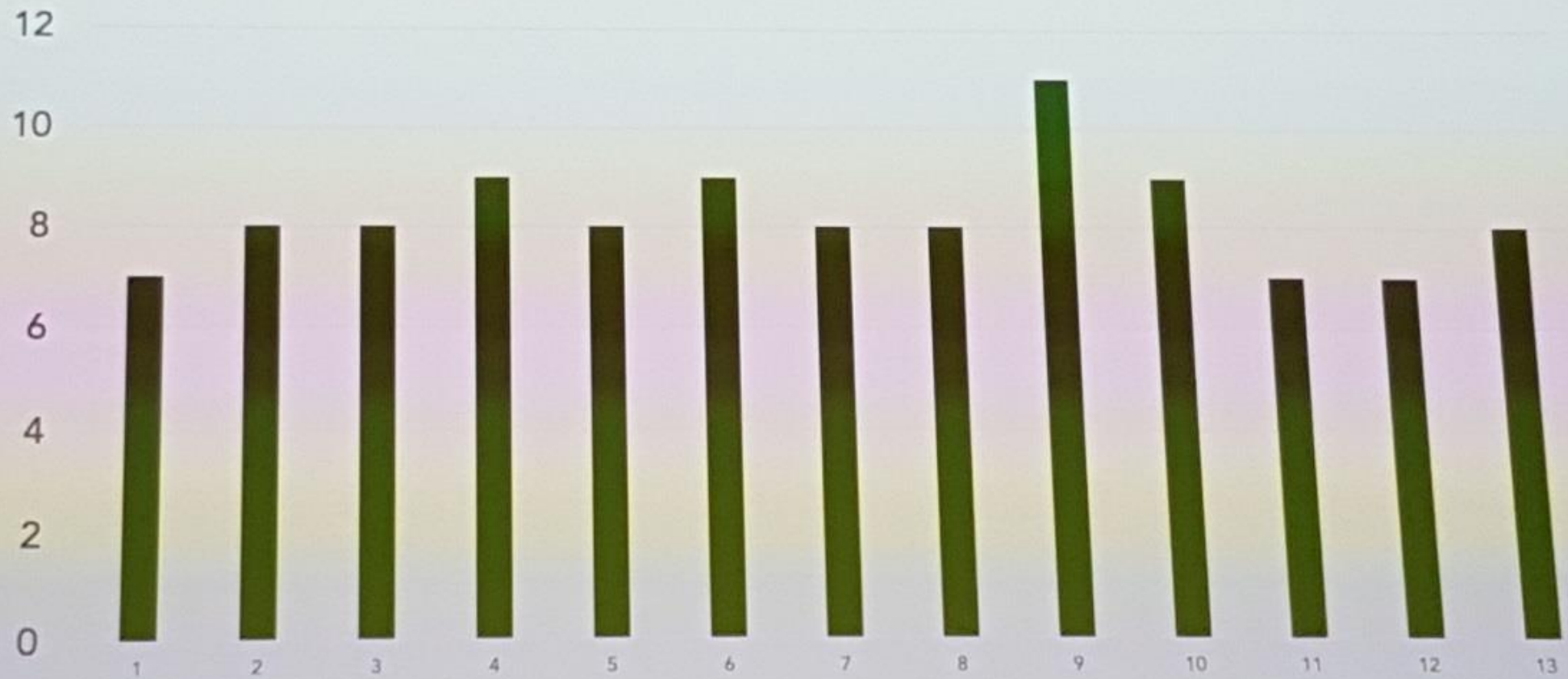
## Doors stay closed (also if the OR is not in use)



■ YES ■ NO

## Aseptic Technique etc.

Number persons in the OR (max.)





## Conclusion

We are the persons to positively change the patient outcome, but we have to go back to basics and take responsibility.