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# Prevention of surgical site infection after open vascular surgery in the lower limbs

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 **Region  
Jönköpings län**




RESEARCH ARTICLE

Open Access

# Healthcare professionals' experiences of being observed regarding hygiene routines: the Hawthorne effect in vascular surgery



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# Surgical site infection

- Definition;  
Is an infection that occurs after surgery in the part of the body where the surgery took place (**30-90 days**)
- 10-43%
- 3<sup>rd</sup> most common hospital- acquired infection
- Most common nosocomial infection in surgical patients





# Peripheral Vascular Surgery

- High risk for surgical site infections; 4-43%

( My retrospective Cohort study 40%)

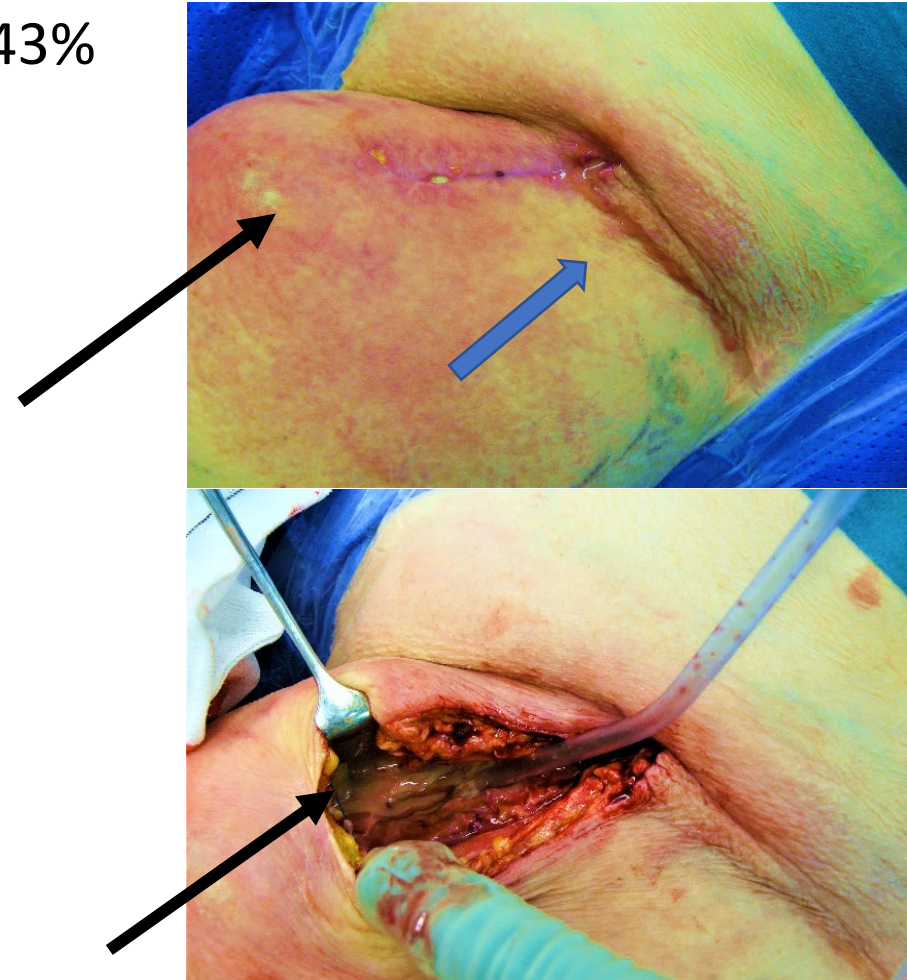
- **Complication**

- Bleeding
- Amputation
- Mortality

- **High financial burden**

- Prolonged hospitalizations
- Readmissions

- **Antibiotic resistance**

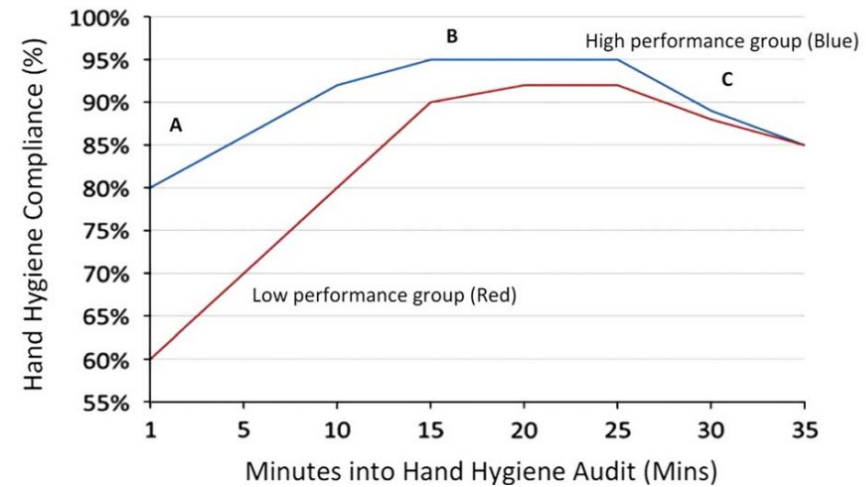


# Hawthorne Effect

- Change in behaviour by subjects due to their awareness of being observed



- Hawthorne Effect impact on **surgical site infection** as well as healthcare associated infections



# Hawthorne Effect mediated factors

## Retrospective Cohort study

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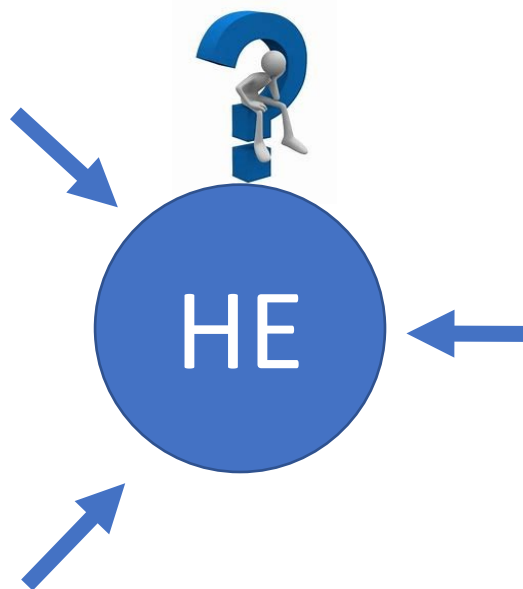
Original Article

**Antibiotic Prophylaxis With Trimethoprim/Sulfamethoxazole Instead of Cloxacillin/Cefotaxime Increases Inguinal Surgical Site Infection Rate After Lower Extremity Revascularization**

Francis Rezk, MD<sup>1,2</sup>, Håkan Åstrand, MD, PhD<sup>2</sup>, and Stefan Acosta, MD, PhD<sup>1,3</sup>

## Hygiene precautions

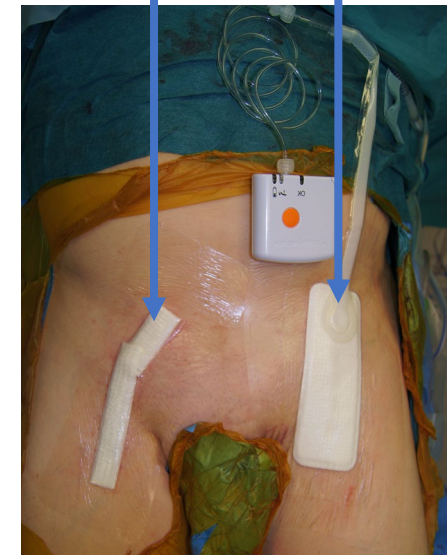
The Department for **Communicable Disease Control** at the Jönköping County Hospital has overall responsibility for hygiene routines, observation process and monitoring.



## Ongoing INVIPS-Trial. RCT

Standard dressing

PICO™- dressing



# Exploring the perspectives and experiences of healthcare professionals regarding Hygiene, observations and Hawthorne Effect

- Single center study
- Explorative qualitative case study
- **Aim:**

To examine how healthcare professionals perceive being observed when following hygiene routines, and how they believe and express how these observations affect their way of working

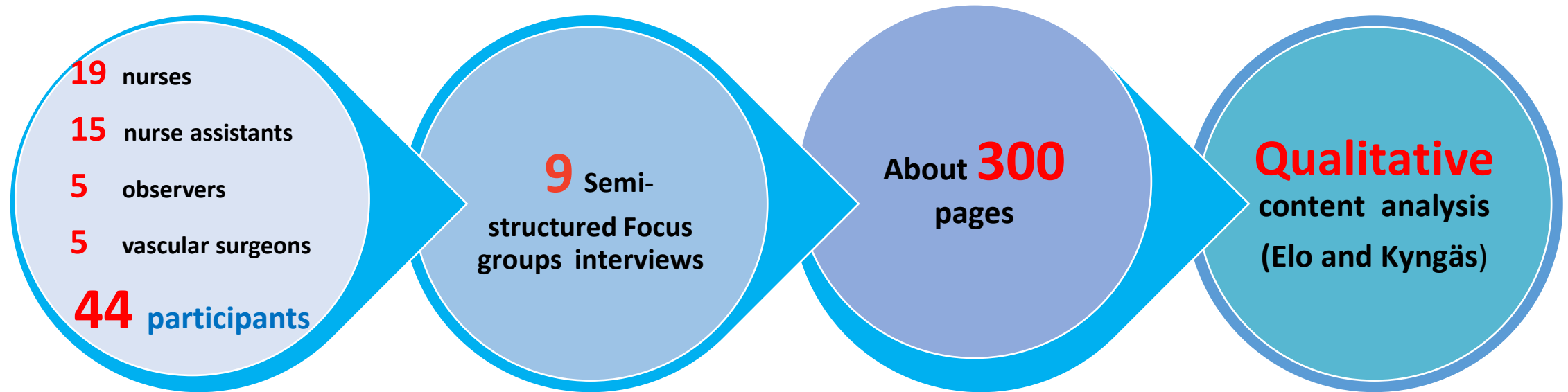
# Method

## The units

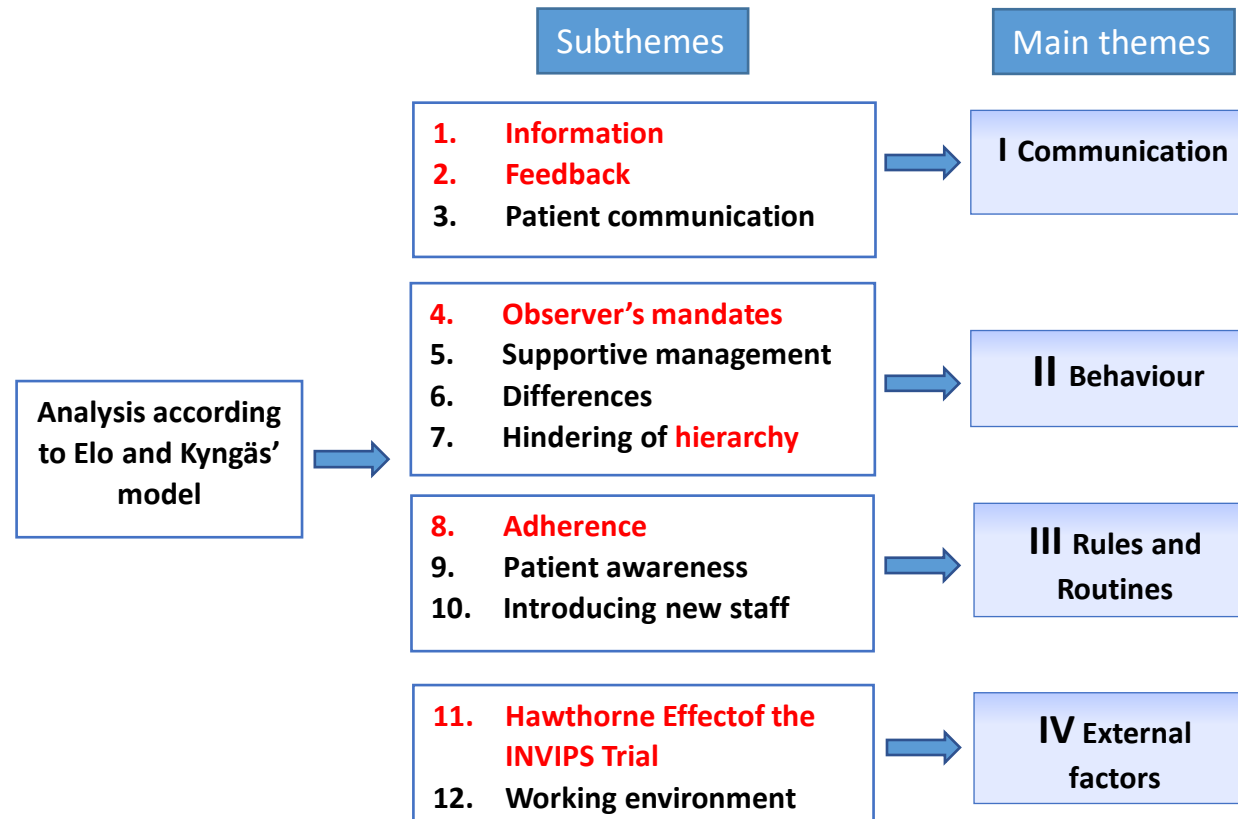
- Outpatient clinic
- Operation theatre
- Postoperative care unit
- Department of surgery
- Hybrid theatre
- Environmental services staff
- Hygiene nurse



# Method



# Results



- Feedback
- Anaesthesiologists, surgeons, cleaning team, included in the observation process
- Open climate
- Continuous training for all
- Clear support to the observers

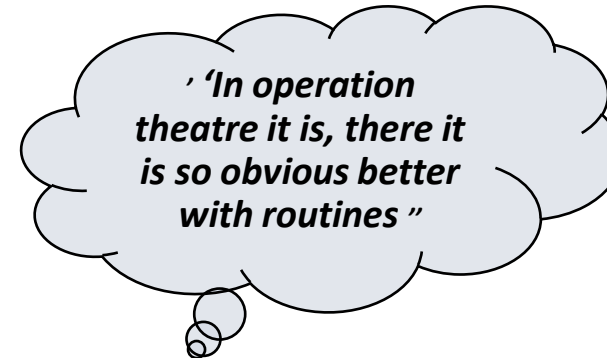
# Citations spots: Participants

## Anaesthesia

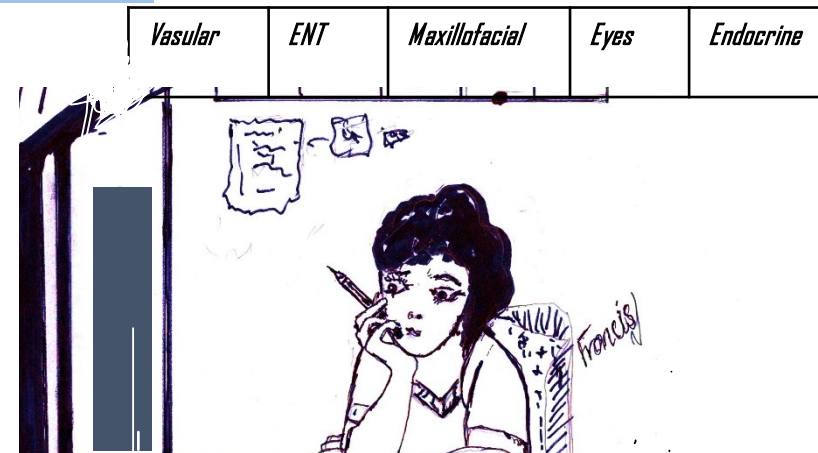


*" On the anaesthetic side then, for example, that it's sometimes dirty and sometimes clean."*

## Operating Theatre



*" in regular departments and then you have... Not that"*



*" I belong to the vascular team myself,... but tomorrow I may have ear-patients "*

# Citations spots: Participants

Mediated Hawthorne Effect



No mediated Hawthorne Effect

*"We think a little more about vascular patients"*

*"we have quite an extra handle on it"*

*"so, it must be sterile care of the operations wounds"*

*"PICO, well then there's a focus on that"*

*"we get a different adherence"*

*"Yes really, there is a big difference, Before and after study."*

*"I don't think, we treat them... No, I think we... ... different with us"*

*But you might think, what does it matter, uh, given that we do the same regardless- op"*

# Conclusion

- There are many factors which influence the adherence of **Healthcare professionals** to standard precautions to a considerable extent of which many factors could be mediated by a Hawthorne Effect
- It is important that managers within the healthcare system put into place an improved and sustainable hygiene care to reduce the rate of **surgical site infections** after vascular surgery
- **Hawthorne Effect** could be mediated by **INVIPS-Trial**





Thank you för attention !  
Questions?