

Hospital staff behaviour in the operating theatres - 500 surgical procedures follow-up.



Kräuff Schwanhaeuser
Jana Hudcovská

**Department of Public Health - Faculty of Medicine
Masaryk University - Brno, Czech Republic.**

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Warning

- The aim of this presentation it is **“not” to criticize or accuse** determined hospitals, but to **“inform”** about some facts that were observed.
- For these reason the names of institutions were observations were done, will be not mentioned.

**How I can obtain good results, if my colleague
is spreading bugs?**

**Infections can destroy the positive effect the
surgery was supposed to produce.**

Methods and Materials I

- Four surgical clinics in the Czech Republic (300).
- One surgical clinic in the United Kingdom (100).
- One surgical clinic in Colombia (100).

Characteristics:

- Teaching hospitals.
- No paediatric surgery.
- Specialties observed → General surgery.
Vascular surgery.
Surgical oncology.

Methods and Materials II

- One observer attended to operating theatres but as a part of the surgical team or as an medical observer (**unfortunately the behaviour of the surgical theatre staff is quite different when they know epidemiologists are around**).
- Observations were recorded:
 - ❖ Once inside the operating theatres - Whole area.
 - ❖ Before during and after each surgical procedure.
 - ❖ Between each patient.
- Events were recorded as : Doctors.
Nurses - Scrub / running.
Students.
Others.

Methods and Materials III

Events observed per operation:

- Proper use of :
 - ✓ scrubs (top tucked into pants), change wet / contaminated scrubs.
 - ✓ surgical masks (worn at all times / changed in every procedure / not dangled around the neck).
 - ✓ surgical gloves.
 - ✓ surgical gowns.
 - ✓ surgical coats.
 - ✓ surgical caps / hoods (covering all hair).
 - ✓ shoe covers / theatre shoes (clean).
 - ✓ protective eyewear.

Methods and Materials IV

Events observed per operation:

- Use of other than surgical attire / personal clothing (i.e. Sweaters, long sleeves undergarments).
- Use of jewellery.
- Use of identification badges, visible at all times.
- Nail:
 - ❖ Polish.
 - ❖ Dirty nails.
 - ❖ Long nails.
- Presence of personal backpacks in the operating room or area.
- Hand washing / disinfection → technique / time.

Results I

- In the Czech Republic 62% (186/300) of surgical procedures showed events / incidents.
- In the United Kingdom 23% (23/100) of surgical procedures showed events / incidents.
- In Colombia 40% (40/100) of surgical procedures showed events / incidents.
- Total number of procedures with events was 249/500 (49.8%).

Results II

- In the Czech Republic caused more events:
1-) Doctors, 2-) Students, 3-) Nurses, 4-) Others.
- In the United Kingdom caused more events:
1-) Nurses, 2-) Students, 3-) Doctors, 4-) Others.
- In Colombia caused more events:
1-) Nurses, 2-) Students, 3-) Doctors, 4-) Others.
- In total caused more events:
1-) Doctors, 2-) Nurses, 3-) Students, 4-) Others.

Results III - Doctors

Events observed per operation:

- Proper use of :
 - ✓ scrubs (**top tucked into pants**), change wet / **contaminated scrubs**.
 - ✓ surgical masks (**worn at all times / changed in every procedure / not dangled around the neck**).
 - ✓ surgical gloves.
 - ✓ surgical gowns.
 - ✓ surgical coats.
 - ✓ surgical caps / hoods (**covering all hair**).
 - ✓ shoe covers / **theatre shoes (clean)**.
 - ✓ **protective eyewear**.

Results IV - Doctors

Events observed per operation:

- Use of other than surgical attire / personal clothing (i.e. **Sweaters**, long sleeves undergarments).
- Use of jewellery.
- **Use of identification badges, visible at all times.**
- **Nail:**
 - ❖ Polish.
 - ❖ **Dirty nails.**
 - ❖ Long nails.
- Presence of personal backpacks in the operating room or area.
- **Hand washing / disinfection → technique / time.**

Results V - Nurses

Events observed per operation:

- Proper use of :
 - ✓ scrubs (**top tucked into pants**), change wet / contaminated scrubs.
 - ✓ surgical masks (**worn at all times / changed in every procedure / not dangled around the neck**).
 - ✓ surgical gloves.
 - ✓ surgical gowns.
 - ✓ surgical coats.
 - ✓ surgical caps / hoods (**covering all hair**).
 - ✓ shoe covers / theatre shoes (clean).
 - ✓ protective eyewear.

Results VI - Nurses

Events observed per operation:

- **Use of other than surgical attire / personal clothing (i.e. Sweaters, long sleeves undergarments).**
- **Use of jewellery.**
- **Use of identification badges, visible at all times.**
- **Nail:**
 - ❖ **Polish.**
 - ❖ **Dirty nails.**
 - ❖ **Long nails.**
- **Presence of personal backpacks in the operating room or area.**
- **Hand washing / disinfection → technique / time.**

Results VII - Students

Events observed per operation:

- Proper use of :
 - ✓ scrubs (top tucked into pants), change wet / contaminated scrubs.
 - ✓ surgical masks (worn at all times / changed in every procedure / not dangled around the neck).
 - ✓ surgical gloves.
 - ✓ surgical gowns.
 - ✓ surgical coats.
 - ✓ surgical caps / hoods (covering all hair).
 - ✓ shoe covers / theatre shoes (clean).
 - ✓ protective eyewear.

Results VIII - Students

Events observed per operation:

- Use of other than surgical attire / personal clothing (i.e. Sweaters, long sleeves undergarments).
- Use of jewellery.
- Use of identification badges, visible at all times.
- Nail:
 - ❖ Polish.
 - ❖ Dirty nails.
 - ❖ Long nails.
- Presence of personal backpacks in the operating room or area.
- Hand washing / disinfection → technique / time.

Results IX - Others

Events observed per operation:

- Proper use of :
 - ✓ scrubs (top tucked into pants), change wet / contaminated scrubs.
 - ✓ surgical masks (worn at all times / changed in every procedure / not dangled around the neck).
 - ✓ surgical gloves.
 - ✓ surgical gowns.
 - ✓ surgical coats.
 - ✓ surgical caps / hoods (covering all hair).
 - ✓ shoe covers / theatre shoes (clean).
 - ✓ protective eyewear.

Results X - Others

Events observed per operation:

- **Use of other than surgical attire / personal clothing (i.e. Sweaters, long sleeves undergarments).**
- **Use of jewellery.**
- **Use of identification badges, visible at all times.**
- **Nail:**
 - ❖ **Polish.**
 - ❖ **Dirty nails.**
 - ❖ **Long nails.**
- **Presence of personal backpacks in the operating room or area.**
- **Hand washing / disinfection → technique / time.**

Conclusions I

- The personnel of surgical departments carry the responsibility to manage wound infection risks and apply numerous means to achieve that goal.
- Always the human factor has to take in count, that's why, it is important not just to educate, but to create a consciousness in the personnel, to do continue follow-up and promote staff to take an active part in the infection control program.

Conclusions II

Hand washing / disinfection

- Despite the fact of state campaigns we still observing deficiencies on surgical hand washing by surgeons, scrub nurses and students.
- An unacceptable fact is that senior surgeons incur more often than junior doctors (giving bad example). In some events junior surgeons made similar mistakes, and their argument was that they are doing it in the same way as senior surgeons wash.
- Some of the frequent faults were insufficient rubbing with soap (leaving some parts of the hand, mainly beneath the nails, finger tips, the thumb and the interdigital areas), not keeping the recommended exposure time to the antiseptic solution or applying disinfectant with wet hands.

Conclusions III

Hand washing / disinfection

- Surgical staff that commit faults were mostly the same, but factors such as lunch time, time to leave from work, TV programmes, coming late to theatres, influenced the quality of hand washing (they were faster than usual).
- Surgeons incurred on wearing gloves, despite the fact they have visible dirt bellow their nails and not once.
- Literature shows that the problem is worldwide. Hospital staff has deficiencies while providing hand washing. (Obrador J., 2006).
- It was quite common that after scrubbing, there was unconscious contact to non-sterile objects.

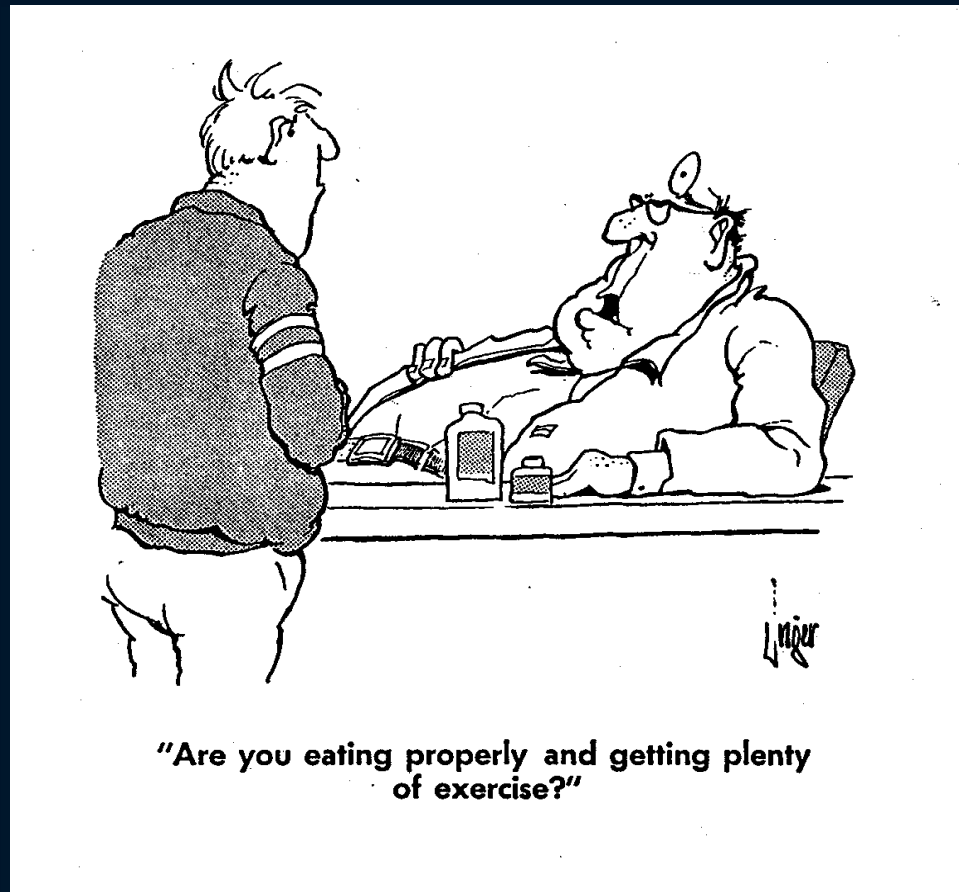
Conclusions IV

- Senior doctors must give example not just to junior surgeons, scrub nurses but to other personnel working on theatres.
- Many professionals do not follow the basic hygienic rules at home, so can we expect to behave in a different way at work?
- Sadly, there is **indifference**, from other personnel. (shyness, fear of retaliation, complicity, others).

Suggestions

- Not only to train and to provide frequent updating but also to **create consciousness in the staff**.
- Help personnel to feel and be identified with the hospital and with what he/she is doing.
- Implement strategies to increase proper use of isolation materials, **handwashing**, and other effective approaches to prevent transmission may be particularly beneficial.

It is a non-sense to ask or require your patients to do something you do not follow by word.



Thank you for your attention.