The future of sterilization/disinfection

Wim Renders
“Panta rei”

“Everything is in motion”

Herakleitos
Clinical pathways
Not new technologies but new trends will have the biggest impact on how the CSSD will function in the future

Rutala
Not new technologies but new trends will have the biggest impact on how the CSSD will function in the future.

Attention to:

- Cleaning, disinfecting
- Outsourcing or centralization
- Introduction of QMS

Rutala
Is sterilization necessary and useful?
Is sterilization necessary and useful?

Yes!
The mortality rate is over 60% for surgical patients

The Agnew Clinic by Thomas Eakin (1885)
Laws of Decontamination

- If cleaning was 100% effective sterilization would be unnecessary!
In case of infectious incidents the authorities intervened and imposed measures to improve sterilization practice.

- The Netherlands
- Great-Britain
Super centre

- first operating Super Centre in the UK
- capacity 1.5 mill. trays/year
- provide 3 hospitals, further will follow soon
- currently T+T on set level realized

- IMS software SAVANT
- possible data carrier
  - RFID (125 kHz)
  - Dot Peen (matrix, 10 char)
  - Bar code / DataMatrix
- subsequent marking
In case of infectious incidents the authorities intervened and imposed measures to improve sterilization practice.

- The Netherlands
- Great-Britain
- France
Belgische arts besmette mogelijk 7.000 patiënten
Franse inspectie gelaard door gebrek aan hygiëne en autoclaveerende radiografie

De Franse overheid gaat 7.000 patiënten opsommen die door een Belgische radioloog zijn onderzocht. "Door het gebrek aan hygiëne vreesden we besmettingen als aids en hepatitis. We twijfelen ook sterk aan de kwaliteit van de radiografieën."

Het opmerkelijke initiatief gisteren van de Franse overheid is een gevolg van de schorsing van de Belgische arts Fard Alsaidi en een paar weken geleden, voor minstens vijf maanden.

De arts van Syrische afkomst staat in het noorden van Frankrijk aan het hoofd van het Centre d'Imagene Medecine, een privéonderneming met vijf filialen. De man stelt nog vijf andere Belgische artsen te weten. Enkele van zijn personeelsleden meldden de Franse gezondheidsinspectie dat de dokter en zijn medewerkers niet zo nauw samenwerken met de hygiënevoorschriften. Inspecteurs van de Franse gezondheidsinspectie waren daarmee op hun kantoor binnen.

De inspectie van het personeel bleek vanzelfsprekend. "Van welke praktijken we gisteren al vertrokken, moesten we tijdens het bezoek vijf keer naar huis, als we dat als een overname van onze verzekeringen, of als we een persoonlijke visie hebben over de hygiënevoorschriften, als we de praktijk van een arts bezoeken, als we de praktijk van een arts bezoeken, als we de praktijk van een arts bezoeken," vertelde hij de ontdekking aan de pers. "Ik heb een tijdje wat laten hangen, maar we hebben gedacht dat we bijna alles hadden gedaan."

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Extra

- Dokter Alsaidi: "Ik heb het een tijdje wat laten hangen,"
In case of infectious incidents the authorities intervened and imposed measures to improve sterilization practice.

- The Netherlands
- Great-Britain
- France
- Turkey
What kind of sterilization department do we want?

What kind of sterilization practice do we want?
Sterilization has grown up!
Sterilization has grown up!

A. Centralization of the sterilization activities

- Better quality
- Cost reduction
- Efficient use of personnel and means
The Sterilization Activity at the UZL:
Option 3: full centralization / best case

- 8 FTE reduced at peripheral OR
- Lower transportation costs (2.5 FTE)
- FTE at peripheral hub perform other tasks

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### Cash Inflow (Scenarios)

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### Cash Outflow (Scenarios)

- New Centralization
- Increased UZL
- Increased NSU

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### Scenarios of All Sterilization Activity in CSSD Best Case

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### Financial Summary

- Positive cash flow
- ROI analysis
- NPV calculation

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### Conclusion

- Centralization improves efficiency
- Transportation costs reduced
- Increased FTE utilization

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**Note:** The above table and text are placeholders and should be replaced with actual financial data and analysis.
Specific training courses

Basisopleiding in desinfectie en sterilisatietechnieken
i.s.m. v.z.w. Sterilisatie in het ziekenhuis
Sterilization has grown up!

A. Centralization of the sterilization activities

B. The European directive on medical disposables
The Medical Device Directive

31993L0042


Official Journal L 169, 12.07.1993 P. 0001 - 0043
Finnish special edition: Chapter 13 Volume 24 P. 0085
Swedish special edition: Chapter 13 Volume 24 P. 0085

COUNCIL DIRECTIVE 93/42/EEC of 14 June 1993 concerning medical devices

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100a thereof,

Having regard to the proposal from the Commission (1),

In cooperation with the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas measures should be adopted in the context of the internal market; whereas the internal market is an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured;

Whereas the content and scope of the laws, regulations and administrative provisions in force in the Member States with regard to the safety, health protection and performance characteristics of medical devices are different; whereas the certification and inspection procedures for such devices differ from one Member State to another; whereas such disparities constitute barriers to trade within the Community:
Industrial sterilization

CSSD
Sterilization has grown up!

A. Centralization of sterilization activities

B. The European directive on medical disposables

C. National sterilization societies
Knowledge is the best medical device

Jan Hobom
Sterilization has grown up!

A. Centralization of sterilization activities
B. The European directive on medical disposables
C. National sterilization societies
D. The appointment of a responsible
‘Shortcuts’: Re-use
‘Shortcuts’
‘Shortcuts’: Flash sterilization
‘Shortcuts’: High level disinfection
Sterilization finds itself on a roundabout.
Centralization
Sterilization finds itself on a roundabout.

- The shortest route: sterilization within the hospital, in a department run by the hospital.
Sterilization finds itself on a roundabout.

- The shortest route: sterilization within the hospital, in a department run by the hospital.

- The fastest route: outsourcing or external centralization
Centralization
Lyon, France
Centralization
Lyon, France
What kind of sterilization practice do we want?
What kind of sterilization practice do we want?

- Voice in the writing of norms
What kind of sterilization practice do we want?

• Voice in the writing of norms

• Scientific underpinning of our discipline
Research on sterilization:
High pressure processing
How to test for steam penetration?

1. Capsule
2. Gasket
3. Indicator
4. Connector
5. Open end
6. Tube
Thyroideectomy:

- Farabeuf: 2 cfu
- Needle holder: 6 cfu

Thrombectomy:

- Suction tube: 14 cfu
- Wound spreader: 3 cfu
- Pincet: 40 cfu
They must be joking! In my case, they can't make me wear a hair-cover!!
Avoiding the hand to face reflex the hard way.
<table>
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<td>Pincet</td>
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STERILITEITSTESTEN OP ULTRASONE BADEN
STERILITEITSTESTEN OP ULTRASONE BADEN
STERILITEITSTESTEN OP ULTRASONE BADEN
Ultrasonic bath is:

- emptied in the evening and dried out.
- The sides and the lid are sprayed with alcohol 70°, and some alcohol is poured down in the drain.
Suction tubes are:

- first rinsed with cold water and
- then treated with hydrogen peroxide 3 %,
- next: normal procedure.
What kind of sterilization practice do we want?

• Voice in the writing of norms
• Scientific underpinning of our discipline
• Future developments
Future developments

- Consolidation of quality
- Validation
Future developments

• Consolidation of quality
• Validation
• Controls
Future developments

• Consolidation of quality
• Validation
• Controls
• Back to the future?
Natural Orifices Transluminal Endoscopic surgery
Conclusion

• Do we opt for sterilization within our own control or not, inside or outside the hospital?
• Do we opt for an independent department which has an “evidence based’ practice?
• Are we prepared to do an effort to maintain our level of knowledge?
• Do we choose for co-operation in order to stimulate progress and innovation?

We can and have to be big in something small!
THANK YOU