Sterilisation and disinfection in small clinics, private practices and dentistry
USERS OF HYGIENE EQUIPMENT

- Dental Clinics (approx. 500,000 acc. to WHO)
- Hospitals (approx. 160,000 acc. to WHO)
- Medical Clinics (??)

**Conclusion**: A big portion of Hygiene Operations is made in Dentistries and Medical Clinics
Outpatient Surgery: More than 4 of every 5 procedures.
CSSD LAYOUT WITH "HYGIENE FIREWALLS"
BEST PRACTISE IN SMALL CLINICS

Hygiene workflow

- Reception of used trays
- Sorting
- Cleaning and disinfection
- Sorting, inspection, functional testing and wrapping
- Sterilisation and process recording
- Storage and distribution
At this time, "very risky" person

Antibodies (immunity defence)

Quantity of microbes (infectious agent)

Free of symptoms "healthy person" and contagious

Period of disease
• Infectious diseases are mostly transmitted through unknown cases!

• The quantity of micro-organisms is always at peak-values during the incubation period! (“risky persons”)

• During incubation period there are no or few symptoms of disease!

• “... all infected patients can not be identified by medical history, physical examination, or laboratory tests

• All patients, all personnel, all...... must be considered as potential carriers of infectious diseases!!!!
GLOBAL SITUATION – MAJOR INFECTIOUS DISEASES

- Tuberculosis: 2000 millions
- Hepatitis B: 350 millions
- Hepatitis C: 170 millions
- HIV / AIDS: 35 millions

Source: WHO 2000
Immunity defense diseases hiv/aids

Resistens against Antibiotics

"Simple" Infektions diseases

Increased international contacts
6 STEP HYGIENE FLOW

1. Waste

2. Disinfector, for cleaning and disinfection of ALL instruments

3. Instrument care such as lubrication of dental hand pieces

4. Wrapping

5. Sterilisation

6a. Aseptic storage of cleaned and disinfected instruments
For non invasive use

6b. Aseptic storage for sterile (wrapped) instruments
For invasive operation
Hygiene Workflow

1:st step

- Reception of used trays
- Sorting
- Cleaning and disinfection
- Sorting, inspection, functional testing and wrapping
- Sterilisation and process recording
- Storage and distribution
STEP 1 - WASTE

“Weightless”
No need to touch the instruments
Flexible Tray for all needs

Includes instrument holder, e.g. no instrument has to be touched before the entire tray is cleaned and disinfected
Hygiene Workflow

1. Reception of used trays
2. Sorting
3. Cleaning and disinfection
4. Sorting, inspection, functional testing and wrapping
5. Sterilisation and process recording
6. Storage and distribution

BEST PRACTICE IN SMALL CLINICS

2nd step
STEP 2 – CLEANING AND DISINFECTION

If NOT internal cleaning and disinfection, prior to sterilization, bacterial and virus can survive even vacuum sterilization.

Injection bar for dental hand pieces
Be aware of the difference between a Dish washer and a Washer-Disinfector
STEP 2 – CLEANING AND DISINFECTION
STEP 2 – CLEANING AND DISINFECTION
HYGIENE SYSTEM

Used
NOT Cleaned
But Sterilized

Never used endofile
STEP 2 – CLEANING AND DISINFECTION

Before sterilization

After sterilization

Cleaning is a MUST
STEP 2 – CLEANING AND DISINFECTION

Blood is corrosive!

Cleaning/disinfection directly after use !!!
Hygiene Workflow

3rd & 4th step

BEST PRACTICE IN SMALL CLINICS

- Reception of used trays
- Sorting
- Cleaning and disinfection
- Sorting, inspection, functional testing and wrapping
- Sterilisation and process recording
- Storage and distribution
STEP 3 – INSTRUMENT CARE
Cleaning/lubrication of Dental Handpieces or any other medical or dental instrument **MUST** be made according to the manufacturers instructions
STEP 4 – WRAPPING AND SEALING
NOTE: Wrapping material acc. To ISO-EN 11607 (former EN 868) is an essential requirement for the wrapping material.
BEST PRACTICE IN SMALL CLINICS

Hygiene Workflow

1. Reception of used trays
2. Sorting
3. Cleaning and disinfection
4. Sorting, inspection, functional testing and wrapping
5. Sterilisation and process recording
6. Storage and distribution

5th step
STEP 5 – STERILIZATION
STEP 5 – STERILIZATION

Mainly 10 to 100 liter chamber volume
Temperature accuracy and process speed is of great importance

Max temp 138 deg. C

Dental hand piece, 1000 - 1500 USD
Caramelization of cotton... due to overheating
Hygiene Workflow

1. Reception of used trays
2. Sorting
3. Cleaning and disinfection
4. Sorting, inspection, functional testing and wrapping
5. Sterilisation and process recording
6. Storage and distribution
STEP 6 – STORAGE

Sterile storage in Operating room or in Hygiene room
FINAL STEP

Good Hygiene is essential for Patient, staff and wallet
## Estimated Cost Relation

<table>
<thead>
<tr>
<th>Item</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Op-table/Dental Unit</td>
<td>2</td>
</tr>
<tr>
<td>Wages</td>
<td>54</td>
</tr>
<tr>
<td>Rent/Building</td>
<td>9</td>
</tr>
<tr>
<td>Material cost</td>
<td>9</td>
</tr>
<tr>
<td>Administration, Telefon, IT</td>
<td>9</td>
</tr>
<tr>
<td>Education, fees etc.</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99</strong></td>
</tr>
</tbody>
</table>
## Estimated Cost Relation

<table>
<thead>
<tr>
<th></th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Op-table/Dental Unit</td>
<td>2</td>
</tr>
<tr>
<td>Wages</td>
<td>54</td>
</tr>
<tr>
<td>Rent/Building</td>
<td>9</td>
</tr>
<tr>
<td>Material cost</td>
<td>9</td>
</tr>
<tr>
<td>Administration, Telefon, IT</td>
<td>9</td>
</tr>
<tr>
<td>Education, fees etc.</td>
<td>16</td>
</tr>
<tr>
<td><strong>Hygiene equipment</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Thank you with clean greetings from the Swedish West Coasts