Infection Prevention and Control - High Level Disinfection

ELCT Health Department

Quality Assurance

Methods for processing instruments

1. Decontamination in 0,5 % chlorine kills all viruses HBV, HCV, HIV and most bacterias such as tubercule bacillius. Recommended by WHO.

2. After decontamination instruments should be rinsed immediately with cool water to remove visible organíc material. Leaving instruments in plain water more than 1 hour can also lead to rusting

3. Cleaning with soap and rinsing with water will kill or remove up to 80 % of all microorganims

   Dry instruments and other items before the sterilization

4. Sterilization kills 100 % of all microorganisms.

   High-Level Disinfection is effective up to 95 % but does not inactivate some endospores

High Level Disinfection

- Can be achieved by 1) boiling (?),

  2) steaming or 3) soaking instruments in various chemical disinfectants
- Disinfectants:
  - Glutaraldehyde 2 %
  - Ortho-phthalaldehyde Cidex OPA 0,55 %
  - Peracetic acid 0,2-0,35 %
  - Alcohol 60 – 90 %
  - Superoxidised water – electrolysis of salt solution


ELCT-N9/216/L/1/530/005

- High Level Disinfectants: chemicals used to inhibit or prevent the growth of microbes on inanimate objects such as endoscopes
  - alcohols 70 - 90 %, hospital devices, instrument tables
  - chlorine and chlorine releasing compounds 0,5 % solutions, high level disinfectant, 20 minutes
  - glutaraldehyde 2 % - Cidex, neutral or alkaline, for HLD items soaked for 20 minutes, sterilization 10 hrs
  - formaldehyde 8 % solution, irritant and potential carcinogenic
  - perasic acid, oxidizing water