Infection Prevention and Control

ELCT Hospitals

Quality Assurance 2004

Infection prevention

- Nosocomial infections are widespread. They are important contributors to morbidity and mortality.
- The most important are: urinary tract infections, pneumonia and diarrhea, infections following surgery or invasive medical procedures and maternal and newborn infections
- Nosocomial or hospital aquired infection is neither present nor incubating at the time the patient came to the health facility.
- high risk places: operation theatre, labour wards, laboratory, ICU, surgical wards

Preventing hospital infections

- we need systematic surveillance, monitoring for hospital infections to determine baseline rates of nosocomial infections such as surgical site infections (SSI)
- adhering to recommended infection prevention practices and standards especially hand hygiene and wearing gloves
- paying attention to well-established processes for decontamination and cleaning of soiled instruments and other items, followed by either sterilization or high-level disinfection
- improving safety in OR and other high-risk areas
- monitor and supervise good patient care practices
- detect outbreaks and exposures and dangers for the staff

- Antiseptics:
  - Alcohols 60 – 90 % (ethyl, etanol, isopropryl)
  - 3 % iodine for skin in operation theatre
  - 7,5 – 10 % idophors (Povidone-Iodine) for mucous membranes
  - 2 – 4 % chlorhexidine gluconate (Hibitane, Hibiclens)
  - at least 2 % chlorhexidine gluconate – cetrimide (Savlon)
  - 0,5 – 4 % chloroxylenol (Dettol)
- Alcohol – based handrub:
  - 60 – 70 % alcohol
  - add 2 % glyserine 1–2 % to alcohol (or propylene glycol or sorpitol)
  - between patientrooms, procedures, riskpatients
  - use about 5 ml (one teaspoonful), continue rubbing the solution until hands are dry 15-20 seconds

Surgical scrubbing solution and alcohol-glycerine handrub from Germany, local taps which are ok

- Disinfectants:
  - alcohols 60 – 90 %
  - chlorine and chlorine-releasing compounds, 0,5 % solution (WHO)
  - formaldehyde 8 %
  - glutaraldehyde 2 % (Cidex), neutral or alkaline
  - new ones: ortho-phthalaldehyde, peracetic acid, superoxidized water
- Eusol,Dakin's, 6 % Hydrogen peroxide - not recommended
- Detergents:
  - cleaning solution = soap + water
  - disinfectant cleaning solutions = a combination of a detergent (soap) and a chemical disinfectant
  - 0,5 % chlorine, 5 % carbolic acid (Lysol, Cresol), 1-2 % phenol
- Precautions when using Chlorine solutions !!!!!!!!!
  - chlorine + cleaning solutions containing an acid e.g. phosphoric acid, ammonia or ammonium chloride will release chlorine gas and other by-products, toxic fumes – So don't use together !! Use chlorine alone

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.	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
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	4. Sterilization kills 100 % of all microorganisms. High-Level Disinfection is effective up to 95 % but does not inactivate some endospores

After decontamination instruments’teeth and holes should be cleaned properly by soft brush and leaved open during autoclaving