

Prevention of HCAI, infection transmission in collectives, the most common causes, hygiene and legal measures/regulations against infection spreading

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Young children in collectives

- Different stages of growth, development
- Infants/children
- Close contact infants/caregivers
- Soiling hands, cloths
- Secretions, aerosols, enteric pathogens, urine
- Exposed to infectious agents
- Transmission → home



Pediatric services

- lower HCAI rates than other hospital services.
- majority HCAIs gastrointestinal and respiratory tracts infections and bloodstream infections

Pediatric hospital admissions

- Treatment of community-acquired infections and other diseases
- Limited isolation facilities
- Severe underlying diseases
- Invasive medical procedures
- Exposed to pathogens → HCAI



Preventing infectious disease

- How infection is spread
- Educating caregivers, parents and children
- Infectious period before illness, after recovery, without signs of illness



Hand hygiene

- Hand washing - preschool-aged children
- Water and soap in child care settings
- Alcohol-based rinse in health care settings (out of children rich)
- How and when to wash hands
- How germs are spread
- Accessible for children
- Washing 15 sec.



- Clean frequently touched surfaces, toys, shared items when visibly soiled or once/day
- Personal hygiene (parents !): toothbrushing, washing hair, taking a shower,
- Sneezing, coughing in hands/tissues
- Not to share cups



Excluding from collectives

- Sick children
- Sick staff
- Until without fever at least 24 hours
- Not for mild respiratory tract illnesses

- Respiratory, gastrointestinal, some skin infections
- Readmitted when no risk of transmission

In collectives

- Airborne infections common cold, flu, pertussis, Hb infections, streptococcal, ...)
- Gastrointestinal viruses
- Skin and mucous membrane infections
- Head lice



Vaccine-preventable diseases

- Reducing population's susceptibility to infection for limited number of diseases
- Measles, rubella, pertussis
- Varicella
- Rotavirus
- RSV



HCAI: Basic legal measures and regulations in Slovenia

- Contagious Diseases Act,
- Rules on the immunoprophylaxis, chemoprophylaxis for every year
- Rules on vaccination, immunization and protection against spread of infectious diseases,
- Rules on the conditions and practising infection control programme



- potentially pathogenic microorganisms from the patients endogenous flora, agents acquired from other patients, from visitors or from the healthcare workers and hospital environment

- Surgical patients and immunocompromised children at highest risk of acquiring HCAI.
- Children in pediatric intensive care units high risk of HCAI due to their underlying disease, compromised host defenses, alteration in flora owing to the administration of broad-spectrum antibiotics and use of invasive devices disrupting the mucocutaneous defense barrier.



- Recommended infection control guidelines for children like for all the patients.
- specific guidelines to reduce the potential risk for patients or staff to acquire common childhood infectious diseases.
- standard precautions, specific isolation types for clinically patent infections

- other measures can be implemented (preadmission screening for incubating or clinical infection, separate waiting area for immunocompromised children, monitored circulation in the hospital and attendance in the playroom, authorization of siblings visiting hospital),
- staff trained to identify potentially contagious patients upon their entrance in medical service

- The nursery is a common site of nosocomial epidemics.
- Hand occlusion the most common route of transmission.



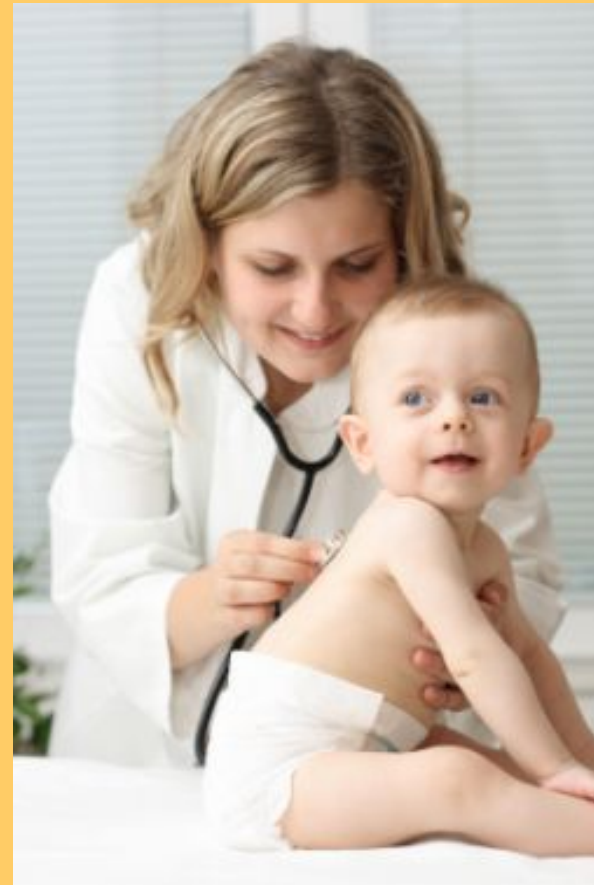
- Contaminated solutions a potential source of nosocomial infections throughout the hospital.
- Monitoring, supportive and therapeutic equipment a source of sporadic and epidemic HCAI in nurseries and critical care nurseries .
- Routine environmental culturing for bacterial contamination only in investigation for a reservoir.



- Hand washing by nursery staff is the most important control measure to interrupt the spread of potentially pathogenic bacteria between patients and between staff and patients.

- Isolation according to the guidelines or cohort isolation during epidemics is required.
- Universal precautions are a standard implemented to interrupt transmission of blood-borne microorganisms

- Beside standard precautions we have to involve employee health services.
- In some countries, healthcare staff should be screened and immune to hepatitis B, varicella and rubella.
- In Slovenia, they must be immune only to hepatitis B.



- Infection control methods may seem to be time consuming, but they reduce illness and should be part of daily routine in child care centers and other collectives as well as in the hospitals.
- Most important ways to prevent infectious diseases in collectives are hand washing, exclusion of sick children and staff and immunisation.

- The goal of infection control is not the treatment but rather the prevention.
- The basic procedure is hand hygiene but we mustn't forget adequate staffing, space and isolation facilities.
- Medical institutions are legally obliged to provide appropriate measures to prevent infections and provide for their implementation.

