

# Goal (4)

# **Prevent health** care-associated infections



### **Rationale**

Newborns and children are especially vulnerable to health care-associated infections (HAIs). The main causes include insufficient application of standard infection control procedures, insufficient equipment and supplies, prolonged and/or incorrect use of invasive devices, highrisk procedures, poor infrastructure, overcrowding, and underlying immune-suppressed conditions.

The prevention of HAIs requires attention to every stage of inpatient care of the newborn and child. Standard precautions must be followed during all patient care interactions, regardless of the patient's known or suspected infection status, to ensure safety and prevent the spread of infections within the health care facility.

Sepsis remains under-recognized across all age groups, and early identification of warning signs, combined with the implementation of evidence-based care, is essential for improving outcomes.

## Suggested actions



#### **People**

- 1. Align the nurse/patient ratio to prevent HAI.
- Provide annual infection prevention and control (IPC) in-service training on facility IPC standard operating procedures for all health workers (e.g., physicians, nurses, cleaning staff), who interact with children.
- 3. Provide education to parents about their role in HAI
- 4. Actively involve service users in care processes, such as kangaroo mother care (KMC).
- 5. Ensure the vaccination of all health workers at risk against all vaccine-preventable infections, as per national immunization policies.



#### Tasks

1. Assess the risk of exposure to blood and body fluids, secretions/excretions, splashes and/or sprays or contaminated surfaces, before any health care activity.

- 2. Perform hand hygiene the right way and at the right time, according to the WHO 5 Moments.
- 3. Select personal protective equipment based on a risk assessment, replace if damaged, soiled or wet, and remove and discard when leaving the patient's room, and then perform hand hygiene.
- 4. Use sterile items and equipment for all aseptic procedures and apply the aseptic technique for the insertion and maintenance of invasive devices, as well as for surgical procedures, wound dressing and similar clinical activities.
- 5. Always use a sterile syringe and needle to withdraw and reconstitute medications, and never leave a needle in the septum of a vial. Discard used needles in the safety box.
- 6. Implement cleaning and disinfection schedules (with consistent supply of consumables) for surfaces, equipment and patient rooms/isolettes.
- 7. Treat waste contaminated with blood, body fluids, secretions and excretions as hazardous, infectious waste, in accordance with local regulations.



#### **Tools and technology**

- Ensure appropriate supplies and equipment for the cleaning, disinfection and sterilization of reusable medical equipment and devices.
- 2. Ensure a reliable energy supply to support water pumping, operate health care waste management technologies, and provide adequate lighting for sanitation facilities.
- 3. Post reminders in the workplace to promote IPC actions, such as prompts beside sinks, for performing correct hand hygiene.
- 4. Ensure an adequate supply of clean and sterile medical supplies and equipment.



# Workplace environment

1. Ensure the health facility has a functioning, improved water source, sufficient for drinking, handwashing, food preparation, personal hygiene, medical activities, cleaning and laundry.

- 2. Ensure access to hand-washing stations with soap and single-use hand towels and/or alcohol-based handrub at the point of care and within five metres of sanitation facilities.
- 3. Design paediatric and neonatal intensive care units following recommended space and staffing
- 4. Ensure adequate facilities for the safe disposal of health care waste, including safe use and disposal of
- 5. Install ventilation systems to reduce the risk of airborne infections.
- 6. Ensure bed occupancy does not exceed the facility's standard capacity, to prevent overcrowding and reduce the risk of HAI.

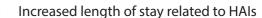


#### **Organization**

- 1. Establish a well-resourced, active IPC programme and at least one designated trained staff member.
- 2. Implement guidelines and protocols on standard and transmission-based precautions, including proper hand hygiene, environmental and equipment cleaning, aseptic techniques, and safe device management during clinical procedures (e.g. injection safety, use of indwelling catheters and other invasive procedures).
- 3. Use multimodal improvement strategies to implement IPC interventions regarding hand hygiene, injection safety, environmental cleaning, reprocessing of medical instruments/devices, HAIs, for instance.
- 4. Implement facility-based HAI surveillance, including AMR monitoring, to guide IPC interventions and detect outbreaks, ensuring the timely feedback of results.
- 5. Conduct regular monitoring and audits of health care practices like hand hygiene, central line insertion and environmental cleaning, against IPC standards, and provide timely feedback.
- Document and communicate key IPC performance indicators, such as restricted antibiotics use and culture-positive sepsis rates, with visual displays for relevant audiences and stakeholders, in a manner that they can understand.

### **Measures**

- Culture-positive sepsis rates
- Sepsis-related case fatality rate
- Central line-associated bloodstream infections (CLABSI) and ventilatorassociated pneumonia (VAP) rates



- Hand hygiene compliance rates
- Compliance with central line insertion bundle
- Compliance with PPE use during transmission-based precautions
- Environmental cleaning compliance.

#### **WHO** resources

- Infection prevention and control in maternal and neonatal care
- Infection prevention and control in-service education and training curriculum
- Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level
- Minimum requirements for infection prevention and control programmes
- Standards for improving the quality of care for children and young adolescents in health facilities
- WHO multimodal improvement strategy
- Your 5 moments for hand hygiene care in a maternity unit
- Standard precautions for prevention and control of infections







