

## Infection control precautions in Cholera outbreaks

### Infection prevention and control in health care

#### Background

Cholera is primarily transmitted in the community due to lack of adequate sanitation conditions. On the other hand, cholera patients admitted to health care settings frequently present vomits and profuse diarrhea, and therefore Contact infection control measures should be applied to avoid direct unprotected contact with body fluids as per **Standard Precautions**.

Hand Hygiene is a major component of standard precaution and one of most effective methods to prevent transmission of pathogens associated with health care.

In addition to hand hygiene, the use of gloves and gowns should be carried out for all health care workers when providing care to Cholera patients with vomits and profuse diarrhea.

Promoting of an institutional safety climate helps to improve conformity with recommended measures and thus subsequent risk reduction. Provision of adequate staff and supplies, together with leadership and education of health care workers, patient and visitor, is critical for enhanced safety climate in health care settings.

#### Important advices

The most important elements of these infection precautions are hand hygiene and protection of hand and cloths (body) from the contact with vomit or stool.

Use of glove and gown while providing care of all cholera patients presenting extensive watery diarrhea and/or vomiting is recommended.

Promotion of safety climate is a cornerstone of prevention of transmission of pathogens in health care

#### Environmental Control

Promptly clean and decontaminate spills of vomit, stools or other potentially infectious materials. Use protective gloves and other PPE appropriate for this task.

Clean soiled and disinfect frequently touched surfaces regularly, including those that are in close proximity to the patient (e.g., chairs, bed, over bed tables) and floor with bleach 0.1% a least twice a day. Cleaning of the surface must precede the application of disinfectants.

Concentrations for use in the hospital area<sup>i</sup>:

10,000 ppm = 1% = Concentration for disinfection of spills, following cleaning.

1,000 ppm = 0.1% = Disinfection of critical areas, following cleaning.

#### Puncture resistant waste

Containers located at the point of use (e.g., sharps containers) are used as containment for discarded slides or tubes with small amounts of blood, scalpel blades, needles and syringes, and unused sterile sharps.

To prevent needle stick injuries, needles and other contaminated sharps should not be recapped, purposefully bent, or broken by hand.

## Personal protective equipment (PPE) and hand hygiene check list

The basic measures necessary when providing direct close care for patients with vomits and profuse diarrhea are:

- Hand hygiene with soap and water or an alcohol-based hand rub;
- Donning PPE upon room entry and discarding before exiting the patient room;
- Wear a clean, non-sterile, long-sleeved gown; and
- Clean gloves which should cover the cuffs of the gown.

## Family members or visitors

Family members or visitors who are providing care or having very close patient contact (e.g., feeding, holding) may should use PPE correctly<sup>ii</sup>.

- Wear gloves whenever touching the patient's intact skin or surfaces and articles in close proximity to the patient (e.g., medical equipment, bed rails).
- Use gown upon entry into the room or cubicle.
- Remove gown and gloves and observe hand hygiene before leaving the patient-care environment.
- Change personal clothes every day.



## Ambulatory care – Oral rehydration points

### Hand hygiene<sup>iii,iv</sup>

- Perform hand hygiene by means of hand rubbing or hand washing
- Ensure availability of hand-washing facilities with clean running water
- Ensure availability of hand hygiene products (clean water, soap, single use clean towels, alcohol-based hand rub). Alcohol-based hand rubs should ideally be available at the point of care

### Personal protective equipment (PPE)

- Wear a gown and gloves for all interactions that may involve contact with the patients presenting vomits and profuse diarrhea.

### Drinking vessels and eating utensils

- Eating utensils and drinking vessels that are being used should not be shared
- If adequate resources for cleaning utensils and dishes are not available, disposable products may be used
- The combination of water and detergents is sufficient to decontaminate dishware and eating utensils

## Infection control precaution in cholera patients presenting vomits and profuse diarrhea in hospital settings

### Patient placement

- Place together in the same room (cohort) patients who are infected with the same pathogen and are suitable roommates
- Ensure that patients are physically separated (i.e., >3 feet apart) from each other
- Change protective attire and perform hand hygiene between contact with patients in the same room, regardless of whether one or both patients are on Contact Precautions

### Personal protective equipment (PPE)

- Hand hygiene with soap and water or an alcohol-based hand rub
- For practical purposes, put on PPE upon room entry and discard before exiting the patient room
- Remove gown and gloves and observe hand hygiene before leaving the patient-care environment

### Patient-care equipment and instruments/devices

- Common use of equipment for multiple patients, clean and disinfect such equipment (ej. thermometers, stethoscope and sphygmomanometer) before use on another patient
- Use 70% ethanol solution or 0.1% hypochlorite solution (for no metal equipments)

### Safe injection practices<sup>ii</sup>

The following recommendations apply to the use of needles, cannulas that replace needles, and, where applicable intravenous delivery systems

- Use aseptic technique to avoid contamination of sterile injection equipment
- Do not administer medications from a syringe to multiple patients, even if the needle or cannula on the syringe is changed

Do not use bags or bottles of intravenous solution as a common source of supply for multiple patients

### Placement of Intravascular Catheters in Adults and Children<sup>v</sup>

- Observe hand hygiene.
- Wearing clean gloves for the insertion of peripheral intravascular catheters
- Disinfect clean skin with an appropriate antiseptic before catheter insertion and during dressing changes. (2% chlorhexidine, tincture of iodine, an iodophor or 70% alcohol)
- Use sterile gauze to cover the catheter site

### Soiled laundry<sup>vi</sup>

- Not shaking the items or handling them in any way that may aerosolize infectious agents
- Avoiding contact of one's body and personal clothing with the soiled items being handled
- Containing soiled items in a laundry bag or designated bin

### Handling Corps

- People who wash and prepare the dead body must:
- Wear gloves, apron and mask
- Clean the body with chlorine solution 1%
- Fill the mouth and anus with cotton wool soaked with chlorine solution
- Bandage the head to maintain the mouth shut
- Not empty the intestines

<sup>i</sup> Pan American Health Organization "Sterilization Manual for Health Centers". Washington, D.C.: PAHO, © 2009

<sup>ii</sup> Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, CDC 2007  
<http://www.cdc.gov/ncidod/dhqp/pdf/isolation2007.pdf>

<sup>iii</sup> Standard precautions in health care. October 2007 Infection Control. Aide-memoire

<sup>iv</sup> Epidemic- and pandemic-prone acute respiratory diseases. Infection prevention and control in health care April 2008 Infection Control. Aide-memoire

<sup>v</sup> Centers for Disease Control and Prevention. Guidelines for the Prevention of Intravascular Catheter-Related Infections. MMWR 2002;51(No. RR-10)

<sup>vi</sup> Guidelines for environmental infection control in health-care facilities. Recommendations from CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Chicago IL; American Society for Healthcare Engineering/American Hospital Association; 2004