

Recommended Standard Infection Control Practices during CCHF Outbreaks

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Epidemic and Pandemic Alert and Response



**World Health
Organization**

Standard precautions in health care

Background

Standard precautions are meant to reduce the risk of transmission of bloodborne and other pathogens from both recognized and unrecognized sources. They are the basic level of infection control precautions which are to be used, as a minimum, in the care of all patients.

Hand hygiene is a major component of standard precautions and one of the most effective methods to prevent transmission of pathogens associated with health care. In addition to hand hygiene, the use of personal protective equipment should be guided by risk assessment and the extent of contact anticipated with blood and body fluids, or pathogens.

In addition to practices carried out by health workers when providing care, all individuals (including patients and visitors) should comply with infection control practices in health-care settings. The control of spread of pathogens from the source is key to avoid transmission. Among source control measures, respiratory hygiene/cough etiquette, developed during the severe acute respiratory syndrome (SARS) outbreak, is now considered as part of standard precautions.

Worldwide escalation of the use of standard precautions would reduce unnecessary risks associated with health care. Promotion 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 workers, patients, and visitors, are critical for an enhanced safety climate in health-care settings.

Important advice

- Promotion of a safety climate is a cornerstone of prevention of transmission of pathogens in health care.
- Standard precautions should be the minimum level of precautions used when providing care for all patients.
- Risk assessment is critical. Assess all health-care activities to determine the personal protection that is indicated.
- Implement source control measures for all persons with respiratory symptoms through promotion of respiratory hygiene and cough etiquette.

Checklist

Health policy

- Promote a safety climate.
- Develop policies which facilitate the implementation of infection control measures.

Hand hygiene

- Perform hand hygiene by means of hand rubbing or hand washing (see detailed indications in Table).
- Perform hand washing with soap and water if hands are visibly soiled, or exposure to spore-forming organisms is proven or strongly suspected, or after using the restroom. Otherwise, if resources permit, perform hand rubbing with an alcohol-based preparation.
- 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)

- ASSESS THE RISK of exposure to body substances or contaminated surfaces BEFORE any health-care activity. Make this a routine!
- Select PPE based on the assessment of risk:
 - clean non-sterile gloves.
 - clean, non-sterile fluid-resistant gown.
 - mask and eye protection or a face shield.

Respiratory hygiene and cough etiquette

- Education of health workers, patients and visitors.
- Use of source control measures.
- Hand hygiene after contact with respiratory secretions.
- Spatial separation of persons with acute febrile respiratory symptoms.

Health-care facility recommendations for standard precautions

KEY ELEMENTS AT A GLANCE

1. Hand hygiene¹

Summary technique:

- Hand washing (40–60 sec): wet hands and apply soap; rub all surfaces; rinse hands and dry thoroughly with a single use towel; use towel to turn off faucet.
- Hand rubbing (20–30 sec): apply enough product to cover all areas of the hands; rub hands until dry.

Summary indications:

- Before and after any direct patient contact and between patients, whether or not gloves are worn.
- Immediately after gloves are removed.
- Before handling an invasive device.
- After touching blood, body fluids, secretions, excretions, non-intact skin, and contaminated items, even if gloves are worn.
- During patient care, when moving from a contaminated to a clean body site of the patient.
- After contact with inanimate objects in the immediate vicinity of the patient.

2. Gloves

- Wear when touching blood, body fluids, secretions, excretions, mucous membranes, non-intact skin.
- Change between tasks and procedures on the same patient after contact with potentially infectious material.
- Remove after use, before touching non-contaminated items and surfaces, and before going to another patient. Perform hand hygiene immediately after removal.

3. Facial protection (eyes, nose, and mouth)

- Wear a surgical or procedure mask and eye protection (face shield, goggles) to protect mucous membranes of the eyes, nose, and mouth during activities that are likely to generate splashes or sprays of blood, body fluids, secretions, and excretions.

4. Gown

- Wear to protect skin and prevent soiling of clothing during activities that are likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.
- Remove soiled gown as soon as possible, and perform hand hygiene.

5. Prevention of needle stick injuries²

Use care when:

- handling needles, scalpels, and other sharp instruments or devices
- cleaning used instruments
- disposing of used needles.

6. Respiratory hygiene and cough etiquette

Persons with respiratory symptoms should apply source control measures:

- cover their nose and mouth when coughing/sneezing with tissue or mask, dispose of used tissues and masks, and perform hand hygiene after contact with respiratory secretions

Health care facilities should:

- place acute febrile respiratory symptomatic patients at least 1 metre (3 feet) away from others in common waiting areas, if possible.
- post visual alerts at the entrance to health-care facilities instructing persons with respiratory symptoms to practise respiratory hygiene/cough etiquette
- consider making hand hygiene resources, tissues and masks available in common areas and areas used for the evaluation of patients with respiratory illnesses.

7. Environmental cleaning

- Use adequate procedures for the routine cleaning and disinfection of environmental and other frequently touched surfaces.

8. Linens

Handle, transport, and process used linen in a manner which:

- prevents skin and mucous membrane exposures and contamination of clothing
- avoids transfer of pathogens to other patients and/or the environment.

9. Waste disposal

- Ensure safe waste management.
- Treat waste contaminated with blood, body fluids, secretions and excretions as clinical waste, in accordance with local regulations.
- Human tissues and laboratory waste that is directly associated with specimen processing should also be treated as clinical waste.
- Discard single use items properly.

10. Patient care equipment

- Handle equipment soiled with blood, body fluids, secretions, and excretions in a manner that prevents skin and mucous membrane exposures, contamination of clothing, and transfer of pathogens to other patients or the environment.
- Clean, disinfect, and reprocess reusable equipment appropriately before use with another patient.

¹ For more details, see: WHO Guidelines on Hand Hygiene in Health Care (Advanced draft), at: http://www.who.int/patientsafety/standardisation/whd_guidelines/hand_hygiene

² The GAHAI Alliance at: <http://www.who.int/patientsafety/whai/alliance/>



Standard Infection Control Precautions

- Basic level of infection control
 - Applies to **all** patients, healthcare workers and visitors
- Meant to reduce risk of transmission of pathogens
- Major Components
 - Hand hygiene
 - Personal Protective Equipment (PPE)
 - Respiratory hygiene/cough etiquette
 - Institutional safety climate

Key elements

- Hand hygiene
- Gloves (based on risk assessment)
- Gown (based on risk assessment)
- Facial protection (eyes, nose, mouth) (based on risk assessment)
- Prevention of needle stick injuries
- Respiratory hygiene and cough etiquette
- Environmental cleaning and disinfection
- Cleaning and disinfection of patient care equipment
- Linen/Laundry
- Waste disposal

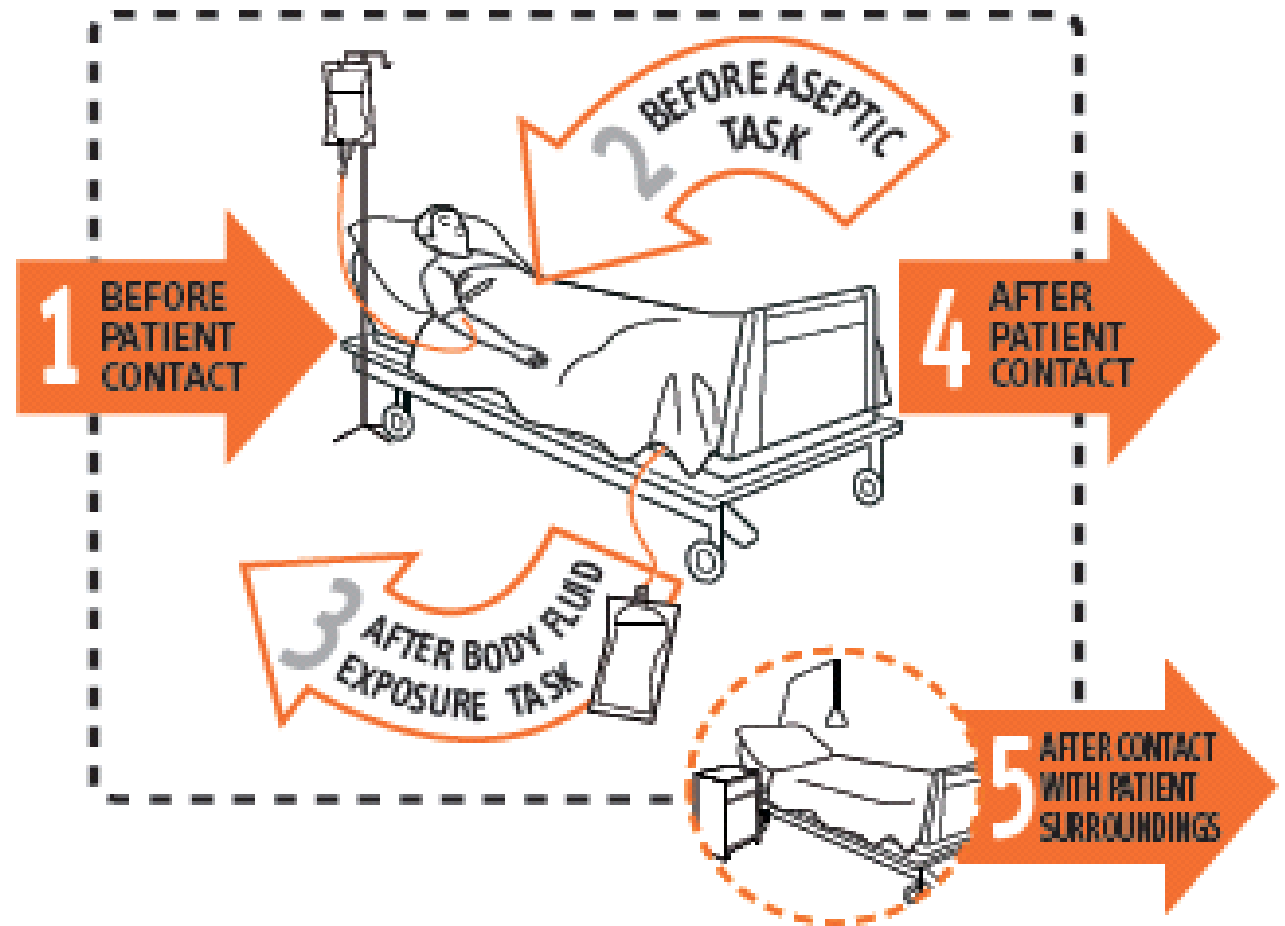
Hand Hygiene



Alcohol based hand rubs are the gold standard for hand hygiene in health care (unless hands are visibly soiled).

Your 5 moments for **HAND HYGIENE**

1. Before patient contact
2. Before aseptic task
3. After body fluid exposure task
4. After patient contact
5. After contact with patient surroundings



Soap and water

- Wash hands when visibly soiled.
- Rub hands for hand hygiene.
- A good technique is important
- **Need 40-60 seconds to make hands safe**

(WHO training materials, 2006)

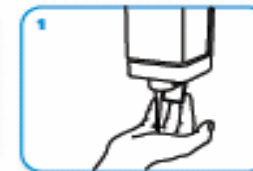
How to handwash?

WASH HANDS ONLY WHEN VISIBLY SOILED! OTHERWISE, PREFER HANDRUB!

 Duration of the entire procedure: 40-60 sec.



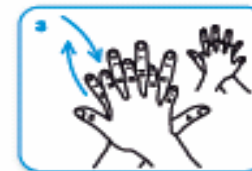
Wet hands with water



apply enough soap to cover all hand surfaces.



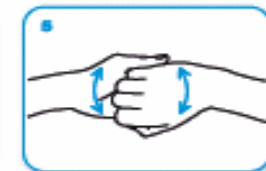
Rub hands palm to palm



right palm over left dorsum with interlaced fingers and vice versa



palm to palm with fingers interlaced



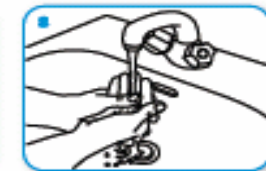
backs of fingers to opposing palms with fingers interlocked



rotational rubbing of left thumb clasped in right palm and vice versa



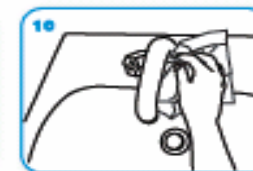
rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.



Rinse hands with water



dry thoroughly with a single use towel



use towel to turn off faucet



...and your hands are safe.

Alcohol based hand rub

- Rub hands for hand hygiene.
- Wash hands when visibly soiled.
- A good technique is important
- **Only need 20-30 seconds to make hands safe**
(WHO training materials, 2006)

How to handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS ONLY WHEN VISIBLY SOILED!

 Duration of the entire procedure: 20-30 sec.



Apply a palmful of the product in a cupped hand and cover all surfaces.



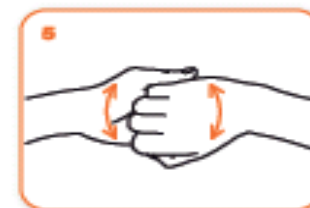
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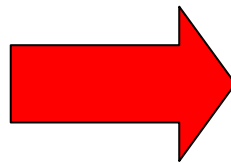
rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



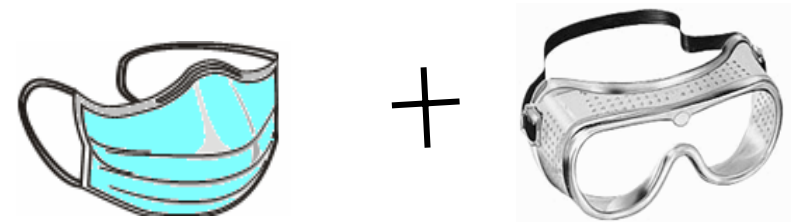
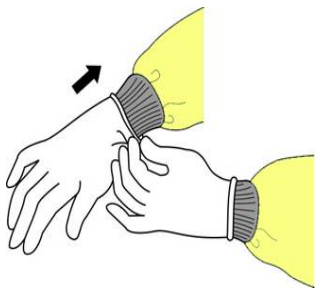
...once dry, your hands are safe.

Use of PPE According to Standard Precautions

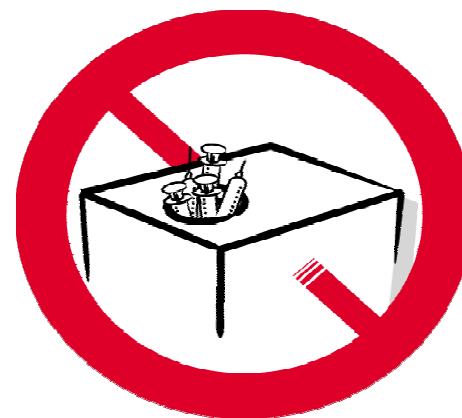
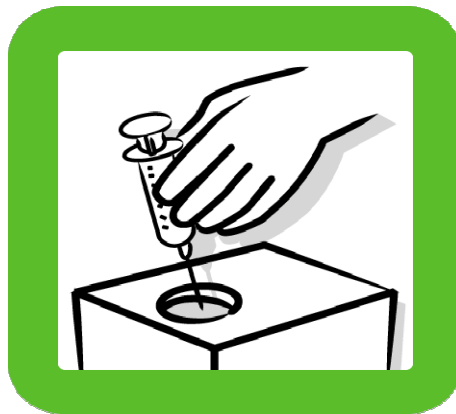
- Risk assessment according to likely exposure to blood and body fluid



- Precautions taken according to the risk



Prevention of Needlestick Injuries



Respiratory Hygiene

- Respiratory hygiene and cough etiquette
 - Education of healthcare workers, patients and visitors
 - Control measures at the source
 - Cover mouth and nose with handkerchief or tissue
 - Do not spit
 - Wash hands after contact with respiratory secretions
 - Separate persons with acute febrile respiratory symptoms



Cleaning and Disinfection

- All disinfection steps should be preceded by cleaning
- Specific disinfection requirements depend on the type of work and the nature of the infectious agents being handled
- Contact times and concentrations for disinfectants are specific for each material and manufacturer



Household Bleach

- Household bleach contains sodium hypochlorite
 - several concentrations may be marketed (e.g., 2.5%, 5%)
- Effective general disinfectant for viruses and bacteria (breaks up DNA/RNA)
- Very corrosive and toxic
- Undiluted bleach liberates a toxic gas when exposed to sunlight, store in a cool and shaded place



Diluted Household Bleach

- For bleach containing 5% sodium hypochlorite
 - Use 1 part bleach and 99 parts water
 - 1:100 dilution = 0.05% sodium hypochlorite
- Diluted bleach loses its power quickly
 - Store in air-tight containers
 - Make fresh every day
- Cleaning: water + plain liquid soap. Protect yourself!
- Soak contaminated re-usables in 0.05% bleach for 30 min.

Linen & Laundry

- Handle, transport, and process used linen in a manner which
 - prevents skin and mucous membrane exposures and contamination of clothing
 - avoids transfer of pathogens to other patients and or the environment



Waste Management

- Treat waste contaminated with blood, body fluids, secretions and excretions as clinical waste, in accordance with local regulations
- Human tissues and laboratory waste that is directly associated with specimen processing should also be treated as clinical waste



The Leadership

- Health policy

- Promote a safety climate
- Develop policies to facilitate infection control measures
 - Provide leadership
 - Conformity with measures
 - Provide adequate staff and supplies
 - Provide education
 - Healthcare workers
 - Patients
 - Visitors



Check List

● Hand Hygiene

- Wash always with soap and water when
 - Hands visibly soiled
 - After gloves have been removed
 - Exposed to spore-forming organisms
 - After using the restroom
- Hand rubbing with alcohol-based preparation
 - Point of care
- Availability of hand-washing facilities
 - Clean running water
- Hand hygiene products
 - Clean water, soap, single use clean towels, alcohol based hand rub



Check List

- Personal Protective Equipment (PPE)
 - Protect mucous membranes of eye, nose, mouth
 - Different levels and equipment available
- Assess risk of exposure
 - Body substances
 - Blood, body fluids, secretions and, excretions
 - Contaminated surfaces
 - Hospital room
 - Patient care equipment
- PPE selection based on risk assessment
 - Clean non-sterile gloves
 - Clean, non-sterile fluid-resistant gowns
 - N-95 respirator mask
 - Eye protection or face shield
 - Cap and shoe covers are optional



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