



# SAN MATEO COUNTY HEALTH SYSTEM

## Specialized Infection Control Precautions

**Standard Precautions** (standard precautions are also reviewed in the section "Basic Infection Precautions"). Use Standard Precautions, or the equivalent, for the care of all patients.

Hand washing:

- Wash hands after touching blood, body fluids, secretions, excretions, and contaminated items, whether or not gloves are worn.
- Wash hands immediately after gloves are removed, between patient contacts, and when otherwise indicated to avoid transfer of microorganisms to other patients or environments.
- It may be necessary to wash hands between tasks and procedures on the same patient to prevent cross-contamination of different body sites.
- Use a plain (non-antimicrobial) soap for routine hand washing.
- Use an antimicrobial agent or a waterless antiseptic agent for specific circumstances (eg, control of outbreaks or hyper-endemic infections), as defined by the infection control program.

Gloves:

- Wear gloves (clean, non-sterile gloves are adequate) when touching blood, body fluids, secretions, excretions, and contaminated items.
- Put on clean gloves just before touching mucous membranes and non-intact skin.
- Change gloves between tasks and procedures on the same patient after contact with material that may contain a high concentration of microorganisms.
- Remove gloves promptly after use, before touching non-contaminated items and environmental surfaces, and before going to another patient, and wash hands immediately to avoid transfer of microorganisms to other patients or environments.

Mask, Eye Protection, Face Shield:

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

Gown:

- Wear a gown (a clean, non-sterile gown is adequate) to protect skin and to prevent soiling of clothing during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.
- Select a gown that is appropriate for the activity and amount of fluid likely to be encountered.
- Remove a soiled gown as promptly as possible, and wash hands to avoid transfer of microorganisms to other patients or environments.

#### Patient-Care Equipment:

- Handle used patient-care 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 microorganisms to other patients and environments.
- Ensure that reusable equipment is not used for the care of another patient until it has been cleaned and reprocessed appropriately.
- Ensure that single-use items are discarded properly.

#### Environmental Control:

- Ensure that the hospital has adequate procedures for the routine care, cleaning, and disinfection of environmental surfaces, beds, bed rails, bedside equipment, and other frequently touched surfaces and ensure that these procedures are being followed.

#### Linen:

- Handle, transport, and process used linen soiled with blood, body fluids, secretions, and excretions in a manner that prevents skin and mucous membrane exposures and contamination of clothing, and that avoids transfer of microorganisms to other patients and environments.

#### Patient Placement:

- Place a patient who contaminates the environment or who does not (or cannot be expected to) assist in maintaining appropriate hygiene or environmental control in a private room. If a private room is not available, consult with infection control professionals regarding patient placement or other alternatives.

**Airborne Precautions.** In addition to Standard Precautions, use Airborne Precautions, or the equivalent, for patients known or suspected to be infected with microorganisms transmitted by airborne droplet nuclei (small-particle residue 15 um or smaller in size) of evaporated droplets containing microorganisms that remain suspended in the air and that can be dispersed widely by air currents

within a room or over a long distance). Examples of such illnesses include: Measles, varicella (including disseminated zoster), and tuberculosis

#### Patient Placement:

- Place the patient in a private room that has (1) monitored negative air pressure in relation to the surrounding area, (2) 6 to 12 air changes per hour, and (3) appropriate discharge of air outdoors or monitored high-efficiency filtration of room air before the air is circulated to other areas in the hospital.
- Keep the room door closed and the patient in the room. When a private room is not available, place the patient in a room with a patient who has active infection with the same microorganism, unless otherwise recommended, but with no other infection.
- When a private room is not available and cohorting is not desirable, consultation with infection control professionals is advised before patient placement.

#### Respiratory Protection:

- Wear respiratory protection when entering the room of a patient with known or suspected infectious pulmonary tuberculosis.
- Susceptible persons should not enter the room of patients known or suspected to have measles or (rubeola) or varicella (chickenpox) if other immune caregivers are available.
- If susceptible persons must enter the room of a patient known or suspected to have measles (rubeola) or varicella, they should wear respiratory protection.
- Persons immune to measles (rubeola) or varicella need not wear respiratory protection.

#### Patient Transport:

- Limit the movement and transport of the patient from the room to essential purposes only.
- If transport or movement is necessary, minimize patient dispersal of droplet nuclei by placing a surgical mask on the patient, if possible.

**Droplet Precautions.** In addition to Standard Precautions, use Droplet Precautions, or the equivalent for a patient known or suspected to be infected with microorganisms transmitted by droplets (large-particle droplets {larger than 5 um in size} that can be generated by the patient during coughing, sneezing, talking, or the performance of procedures). Examples of such illnesses include: Invasive *Haemophilus influenzae* type b disease, including meningitis, pneumonia, epiglottitis, and sepsis; and invasive *Neisseria meningitidis* disease, including meningitis, pneumonia, and sepsis. Bacterial respiratory

infections that can be spread by droplet transmission, include Diphtheria (pharyngeal), mycoplasma pneumonia, Pertussis, pneumonic plague, Streptococcal (group A) pharyngitis, pneumonia, or scarlet fever in infants and young children. Serious viral infections spread by droplet transmission, include adenovirus, influenza, mumps, Parvovirus B19, and rubella.

Patient Placement:

- Place the patient in a private room.
- When a private room is not available, place the patient in a room with a patient(s) who has active infection with the same microorganism but with no other infection (cohorting).
- When a private room is not available and cohorting is not achievable, maintain spatial separation of at least 3 ft between the infected patient and other patients and visitors. Special air handling and ventilation are not necessary, and the door may remain open.

Mask:

- In addition to standard precautions, wear a mask when working within 3 ft of the patient (Logistically, some hospitals may want to implement the wearing of a mask to enter the room).

Patient Transport:

- Limit the movement and transport of the patient from the room to essential purposes only. If transport or movement is necessary, minimize patient dispersal of droplets by masking the patient, if possible.

**Contact Precautions.** In addition to Standard Precautions, use Contact Precautions, or the equivalent, for specified patients known or suspected to be infected or colonized with epidemiologically important microorganisms that can be transmitted by direct contact with the patient (hand or skin-to-skin contact that occurs when performing patient-care activities that require touching the patient's dry skin) or indirect contact (touching) with environmental surfaces or patient-care items in the patient's environment. Examples of such illnesses include: Gastrointestinal, respiratory, skin, or wound infections or colonization with multidrug-resistant bacteria judged by the infection control program, based on current state, regional, or national recommendations, to be of special clinical and epidemiologic significance; Enteric infections with a low infectious dose or prolonged environmental survival, including: *Clostridium difficile*, [for diapered or incontinent patients:] Enterohemorrhagic *Escherichia coli* 0157:H7, *Shigella*, hepatitis A, or rotavirus; Respiratory syncytial virus, parainfluenza virus, or enteroviral infections in infants and young children; and skin infections that are highly contagious or that may occur on dry skin, including, Diphtheria (cutaneous), Herpes simplex virus (neonatal or mucocutaneous), impetigo, major (noncontained) abscesses, cellulitis, or decubiti, Pediculosis, Scabies,

Staphylococcal furunculosis in infants and young children, Zoster (disseminated or in the immunocompromised host), Viral/hemorrhagic conjunctivitis, and Viral hemorrhagic infections (Ebola, Lassa, or Marburg).

#### Patient Placement:

- Place the patient in a private room.
- When a private room is not available, place the patient in a room with a patient(s) who has active infection with the same microorganism but with no other infection (cohorting).
- When a private room is not available and cohorting is not achievable, consider the epidemiology of the microorganism and the patient population when determining patient placement.
- Consultation with infection control professionals is advised before patient placement.

#### Gloves and Hand washing:

- In addition to wearing gloves as outlined under Standard Precautions, wear gloves (clean, non-sterile gloves are adequate) when entering the room.
- During the course of providing care for a patient, change gloves after having contact with infective material that may contain high concentrations of microorganisms (fecal material and wound drainage).
- Remove gloves before leaving the patient's environment and wash hands immediately with an antimicrobial agent or a waterless antiseptic agent.
- After glove removal and hand washing, ensure that hands do not touch potentially contaminated environmental surfaces or items in the patient's room to avoid transfer of microorganisms to other patients or environments.

#### Gown:

- In addition to wearing a gown as outlined under Standard Precautions, wear a gown (a clean, non-sterile gown is adequate) when entering the room if you anticipate that your clothing will have substantial contact with the patient, environmental surfaces, or items in the patient's room, or if the patient is incontinent or has diarrhea, an ileostomy, a colostomy, or wound drainage not contained by a dressing.
- Remove the gown before leaving the patient's environment.
- After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces to avoid transfer of microorganisms to other patients or environments.

#### Patient Transport:

- Limit the movement and transport of the patient from the room to essential purposes only.
- If the patient is transported out of the room, ensure that precautions are maintained to minimize the risk of transmission of microorganisms to other patients and contamination of environmental surfaces or equipment.

Patient-Care Equipment:

- When possible, dedicate the use of non-critical patient-care equipment to a single patient (or cohort of patients infected or colonized with the pathogen requiring precautions) to avoid sharing between patients. If use of common equipment or items is unavoidable, then adequately clean and disinfect them before use for another patient.

Specific communicable disease isolation precautions:

Clinical syndrome or Condition (persons with the conditions below could present with atypical sx. Suspicion should be guided by prevalence in the community and clinical judgement)	Potential Pathogens (This list does not represent ALL potential organisms; it does represent possible etiologic agents)	Isolation precautions (in ADDITION to Standard Precautions)
<p><b>Diarrhea</b> Acute diarrhea with a likely infectious cause in an incontinent or diapered patient</p> <p>Diarrhea in an adult with a history of recent antibiotic use</p>	<p>Enteric pathogens: Enterohemorrhagic <i>Escherichia coli</i> 0157:H7, <i>Shigella</i>, hepatitis A, <i>C. difficile</i>, and rotavirus.</p> <p><i>Clostridium difficile</i></p>	<p>Contact (pediatric and adult)</p> <p>Contact</p>
<p><b>Meningitis</b></p>	<p><i>Neisseria meningitidis</i></p> <p>Enteroviruses</p> <p><i>M. tuberculosis</i></p>	<p>Droplet for 1st 24 hours of antibiotics</p> <p>Contact for infants and children</p> <p>Airborne for pulmonary infiltrate AND Contact if body fluids present</p>
<p><b>Rash or exanthems, generalized, etiology unknown</b></p> <p>Petechial/ecchymotic with fever</p> <p>If [+I hx travel to</p>	<p><i>Neisseria meningitidis</i></p> <p>Ebola, Lassa, Marburg</p>	<p>Droplet</p> <p>Droplet AND Contact</p>

<p>Hemorrhagic Fever (VHF) endemic area within 10 days prior to onset</p> <p>Vesicular</p> <p>Maculopapular with coryza and fever</p>	<p>viruses</p> <p>Varicella-zoster, <i>herpes simplex</i>, variola (smallpox), vaccinia viruses</p> <p>Rubeola (measles)</p>	<p>Airborne AND Contact; Contact only if herpes simplex, localized zoster in immune compromised host</p> <p>Airborne</p>
<b>Respiratory infections</b>		
<p>Cough/fever/upper lobe pulmonary infiltrate in an HIV- negative patient or a patient at low risk for HIV infection</p>	<p><i>Mycobacterium tuberculosis</i>, respiratory viruses, <i>S. pneumoniae</i>, <i>S. aureus</i> (MSSA, MRSA)</p>	<p>Airborne AND Contact</p>
<p>Cough/fever/pulmonary infiltrate in any lung location in a HIV- infected patient at high risk for HIV infection</p>	<p><i>Mycobacterium tuberculosis</i>, respiratory viruses, <i>S. pneumoniae</i>, <i>S. aureus</i> (MSSA, MRSA)</p>	<p>Airborne AND Contact</p>
<p>Cough/fever/pulmonary infiltrate in any lung location in a patient with a history of recent travel to countries with active cases of SARS, avian influenza</p>	<p><i>M. tuberculosis</i>, severe acute respiratory syndrome, avian influenza</p>	<p>Airborne AND Contact AND eye protection. If r/o TB or SARS, then Droplet OK</p>
<p>Paroxysmal or severe persistent cough during periods of pertussis activity</p>	<p><i>Bordetella pertussis</i></p>	<p>Droplet</p>
<p>Respiratory infections, particularly bronchiolitis and croup in infants and young children</p>	<p>Respiratory syncytial or parainfluenza virus</p>	<p>Contact</p>
<b>Skin or Wound Infection</b>		
<p>Abscess or draining wound that cannot be covered</p>	<p><i>Staphylococcus aureus</i> Contact (MRSA, MSSA)</p>	<p>Contact; add Droplet for 1<sup>st</sup> 24 hours of abx tx if invasive Group A streptococcal disease suspected</p>

Infection control professionals are encouraged to modify or adapt this table according to local conditions. To ensure that appropriate isolation precautions are implemented always, health care facilities should have systems in place to

evaluate patients routinely according to these criteria as part of their preadmission and admission care.

References:

Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 *Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings*, June 2007  
<http://www.cdc.gov/ncidod/dhqp/pdf/isolation2007.pdf>

Centers for disease control and prevention (1996) *Guideline for isolation precautions in hospitals*.