Infection Prevention - Standard Precautions - Transmission-Based Isolation

PURPOSE

The Centers for Disease Control, (CDC) and the Hospital Infection Control Practices Advisory Committee (HICPAC) have issued final guidelines for Isolation Systems in Healthcare facilities.

Standard Precautions combine the major features of Universal Precautions for blood and body fluid (designed to reduce the risk of transmission of blood borne pathogens), and Body Substance Isolation (designed to reduce the risk of transmission of pathogens from moist body substances) and applies them to all patients receiving care in hospitals, regardless of their diagnosis or presumed infectious status.

Isolation System

Standard Precautions apply to: 1) blood; 2) all body fluids, secretions, and excretions, except sweat, regardless of whether or not they contain visible blood; 3) non-intact skin; and 4) mucous membranes.

Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection by utilizing Protective Barriers (e.g., gloves, gowns, mask, goggles, and ventilation devices. Refer to Personal Protective Equipment Policy & Procedure.

Transmission-Based Precautions are designed for patients documented or suspected to be infected with highly transmittable or epidemiologically important pathogens for which additional precautions beyond standard precautions are needed to interrupt disease transmission. There are five types of Transmission-based Precautions:

- Airborne Precautions - Designed to reduce the risk of airborne transmission of particles 5 microns or smaller in size (e.g., tuberculosis, measles, pandemic flu, or varicella) which can be dispersed by air currents and travel long distances from the source of infection.
- Droplet Precautions - Designed to reduce the risk of droplet transmission. Droplet transmission involves contact of the conjunctivae or the mucous membranes of the nose or mouth. Droplets are large particles larger than 5 microns in size (e.g., Hemophilus influenza, meningococcal meningitis, mycoplasma pneumonia, pertussis, streptococcal pharyngitis, pneumonia, or scarlet fever in infants and young children). Serious viral illnesses include: Adenovirus, Influenza, Mumps, Parvo virus B19, and Rubella. Droplets are generated from the source by sneezing, coughing, talking, or during procedures such as bronchoscopy. Droplets generally travel only short distances, usually 3 to 6 feet from the source.
- Enhanced Droplet / Contact Precautions - Designed to reduce the risk of transmission for Respiratory
Syncytial Virus (RSV) and other organisms when the patient is non-compliant with respiratory etiquette, and/or has a suspected or confirmed severe respiratory illness with a forceful cough.

**Respiratory Panel Precautions**

<table>
<thead>
<tr>
<th>PRECAUTIONS FOR POSITIVE RESULTS</th>
<th>VIRUSES</th>
<th>BACTERIA</th>
<th>PRECAUTIONS</th>
<th>DURATION</th>
</tr>
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<tbody>
<tr>
<td>Adenovirus</td>
<td>X</td>
<td></td>
<td>Droplet/Contact</td>
<td>Duration of Illness</td>
</tr>
<tr>
<td>Coronavirus 229E</td>
<td>X</td>
<td></td>
<td>Droplet</td>
<td>5 Days From Onset</td>
</tr>
<tr>
<td>Coronavirus HKU1</td>
<td>X</td>
<td></td>
<td>Droplet</td>
<td>5 Days From Onset</td>
</tr>
<tr>
<td>Coronavirus NL63</td>
<td>X</td>
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<td>5 Days From Onset</td>
</tr>
<tr>
<td>Coronavirus OC43</td>
<td>X</td>
<td></td>
<td>Droplet</td>
<td>5 Days From Onset</td>
</tr>
<tr>
<td>Human Metapneumovirus</td>
<td>X</td>
<td></td>
<td>Droplet</td>
<td>5 Days From Onset</td>
</tr>
<tr>
<td>Rhinovirus / Enterovirus</td>
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<td></td>
<td>Droplet</td>
<td>5 Days From Onset</td>
</tr>
<tr>
<td>Influenza A</td>
<td>X</td>
<td></td>
<td>Droplet</td>
<td>Duration of Illness</td>
</tr>
<tr>
<td>Influenza B</td>
<td>X</td>
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<td>Duration of Illness</td>
</tr>
<tr>
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<td>Duration of Illness</td>
</tr>
<tr>
<td>Parainfluenza Virus 2</td>
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<td>Droplet</td>
<td>Duration of Illness</td>
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<tr>
<td>Parainfluenza Virus 3</td>
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<td></td>
<td>Droplet</td>
<td>Duration of Illness</td>
</tr>
<tr>
<td>Parainfluenza Virus 4</td>
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<td>Duration of Illness</td>
</tr>
<tr>
<td>Respiratory Syncytial Virus (RSV)</td>
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<td>Droplet/Contact</td>
<td>Duration of Illness</td>
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<tr>
<td>SARS COV-2 (COVID-19)</td>
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<td></td>
<td>Airborne Droplet/Contact</td>
<td>Duration of Illness</td>
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<tr>
<td>Recovered SARS COV-2 (COVID-19)</td>
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<td>Droplet/Contact</td>
<td>Until Discharged from Facility</td>
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<tr>
<td>Bordetella Parapertussis</td>
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<td>Droplet</td>
<td>5 Days From Onset</td>
</tr>
<tr>
<td>Bordetella Pertussis</td>
<td>X</td>
<td></td>
<td>Droplet</td>
<td>5 Days With Antibiotics</td>
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<tr>
<td>Chlamydia pneumoniae</td>
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<td>Standard</td>
<td>5 Days With Antibiotics</td>
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<tr>
<td>Mycoplasma pneumoniae</td>
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<td></td>
<td>Droplet</td>
<td>Duration of Illness</td>
</tr>
</tbody>
</table>

**Contact Precautions** - Designed to reduce the risk of transmission by direct or indirect contact. **Direct Contact** involves skin-to-skin contact and physical transfer of the microorganism to a susceptible person from an infected or colonized source or **Indirect Contact** involves contact by a susceptible person with a contaminated inanimate object in the patient's environment (e.g., equipment, bedside table, etc).

Examples of illnesses for which Contact Precautions apply include: 1) Gastrointestinal, respiratory, skin
• **Contact-Plus (C+)** is CPH-specific isolation. This is used for patients who are known to have, or are suspected of having, *clostridium difficile* or other suspected or confirmed diarrheal illness. In using a different isolation category, it serves to communicate to staff that the patient had a diarrheal illness which may require additional cleaning / disinfection measures and reminds everyone who enters the room to use soap and water hand washing instead of an alcohol-based hand rub.

<table>
<thead>
<tr>
<th>PRECAUTIONS FOR POSITIVE RESULTS</th>
<th>VIRUSES</th>
<th>BACTERIA</th>
<th>PARASITES</th>
<th>Diarrheagenic E.coli /Shigella</th>
<th>PRECAUTIONS /DURATION</th>
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<tbody>
<tr>
<td>Campylobacter</td>
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<td>contact plus/duration of illness</td>
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<tr>
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<tr>
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<td>contact plus/duration of illness</td>
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<tr>
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<td>Cryptosporidium</td>
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<td>contact plus/duration of illness</td>
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<td>contact plus/duration of illness</td>
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<tr>
<td>Giardia lamblia</td>
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<td>X</td>
<td></td>
<td></td>
<td>contact plus/</td>
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</tbody>
</table>
### PROCEDURE

**Hand Washing and Gloving:**

- Hand washing is the single most important measure to reduce the risk of transmitting organisms from one person to another or from one site to another on the same patient.
- Wash hands as promptly and thoroughly as possible between patient contacts, after contact with blood, body fluids, secretions, excretions and contact with equipment.
• Gloves are worn for three important reasons: 1) To provide a protective barrier and prevent gross contamination of hands when touching blood, body fluids, secretions, excretions, mucous membranes, and non-intact skin 2) To reduce the likelihood that microorganisms on hands of personnel will be transmitted to patients during invasive or other patient-care procedures that involve touching a patient's mucous membranes and non-intact skin 3) To reduce the likelihood that hands of personnel contaminated with microorganisms from a patient or a fomite can transmit these microorganisms to another patient.

• **Wearing gloves does not replace the need for hand washing!**

**Patient Placement:**

• Place a patient that contaminates the environment, or cannot be expected to assist in maintaining infection prevention precautions in a private room (e.g., infants, children and patients with altered mental status).

• When a private room is not available patients infected by the same microorganism can usually share a room provided that:
  ◦ They are not infected with other transmittable microorganisms.
  ◦ The likelihood of reinfection with the same organism is minimal.
  ◦ Cohorting is especially useful during outbreaks when there is a shortage of rooms.

**Airborne Precautions:**

• Place the patient in a private room.

• Keep the door closed at all times.

• Place **Airborne Isolation** sign on the door (see attached sign).

• Place a Microcon Unit in the patient room per policy.

• Visitors are restricted.

**Droplet Precautions:**

• Place the patient in a private room.

• Place a **Droplet Precautions** sign on the door (see attached sign).

• When a private room is not available, place the patient in a room with a patient 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 feet between infected patient and other patients and visitors.

• Keep the privacy curtain pulled to form a physical barrier between the patients and educate patients.

• Special air handling and ventilation (e.g., Microcon Unit) are not necessary, and the door may remain open.

• Visitors within 3 feet of patient must don PPE. All visitors must utilize hand sanitizer before entering and when exiting the patient room.

**Enhanced Droplet / Contact Precautions:**

• Place the patient in a private room.

• Place the **Enhanced Droplet / Contact Precautions** sign on the door (see attached sign).

• When a private room is not available, place the patient in a room with a patient 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 feet between infected patient and other patients and visitors.

• Keep the privacy curtain pulled to form a physical barrier between the patients and educate.

• Special air handling and ventilation (e.g., Microcon Unit) are not necessary, and the door may remain open.
open.

- Visitors within 3 feet of patient must don PPE. All visitors must utilize hand sanitizer before entering and when exiting the patient room.

**Contact Isolation:**

- Place the patient in a private room.
- Cohort with patients who have the same infection.
- When a private room or cohorting are not achievable, consult with Infection Prevention Specialist prior to patient placement.
- Place a Contact Isolation sign on the door (see attached sign).
- Visitors within 3 feet of patient must don PPE. All visitors must utilize hand sanitizer before entering and when exiting the patient room.

**Contact-Plus Precautions:**

- Place the patient in a private room.
- **DO NOT** cohort with any patient.
- Place a Contact-Plus Isolation sign on the door.
- Visitors within 3 feet of patient must don PPE. All visitors must utilize hand sanitizer before entering and soap and water when exiting the patient room.

**Transport of Infected Patients:**

- Personnel in the area to which the patient is to be taken will be notified of the impending arrival and required precautions.
- Patient is instructed of ways in which they can assist in preventing the spread of infections.

**Airborne Precautions/Droplet Precautions/Enhanced Droplet/Contact Precautions:**

- Limit the movement and transport of patient to procedure that are medically essential.
- If transport or movement is necessary, minimize patient dispersal of droplet nuclei by placing a blue, cone-shaped mask on the patient.

**Contact/Contact-Plus Precautions:**

- Limit the movement and transport of patients infected with virulent, resistant or highly contagious microorganisms for only medically essential procedures.
- 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 environmental surfaces or equipment.

**Mask, Respiratory Protection, Eye Protection, Face Shields:**

- A mask that covers both the nose and mouth and goggles or a face shield are to be worn for procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.

**Airborne Precautions:**

- N95 masks are required for personnel when caring for patients with infections that are airborne transmitted (e.g., tuberculosis, measles, and varicella).
- All Visitors entering the room of a patient on Airborne Isolation are required to wear a mask. Visitors are to be instructed on rationale for precautions and taught to fit-check the masks.
• When the patient must leave the room a mask must be worn by the patient.
• Pregnant or immunocompromised persons should not enter the room of patients on airborne precautions.

**Droplet Precautions:**

• A surgical mask should be in place upon entering the room, and is acceptable protection when caring for patients on Droplet Precautions. These infections are transmitted by close contact and generally travel only short distances (3 to 6 feet) from patients who are coughing or sneezing.

**Enhanced Droplet / Contact Precautions:**

• A surgical mask with attached eye protection or mask and goggles, as well as gloves and a gown must be in place upon entering the room, and is acceptable protection when caring for patients on Enhanced Droplet / Contact Precautions. These infections are transmitted by close contact and generally travel only short distances (3 to 6 feet) from patients who are coughing or sneezing.

**Contact/Contact-Plus Precautions:**

• Respiratory protection is not necessary.

**Gowns and Protective Apparel:**

• Gowns are worn to prevent contamination of clothing and protect skin of personnel from blood and body fluid exposures.
• Gowns must be impervious to fluids to prevent soak through, and must be worn during procedures that are likely to produce splashes of blood or body fluid.
• Gowns must also be worn by personnel during care of patients infected with epidemiologically important microorganisms (e.g., CRE, ESBL, any organism that is resistant to ≥ 3 classes of antibiotics) to reduce opportunity for transmission of pathogens from patients or items in their environment to other patients.
• Gowns are to be removed before personnel leave the patient's room, and hands are to be washed.

**Airborne/Droplet Precautions:**

• Gowns are not required unless soiling of clothing is anticipated.

**Contact/Contact-Plus/ Enhanced Droplet/ Contact Precautions:**

• In addition to Standard Precautions Guidelines, gowns, gloves, and mask with an eye shield, if indicated, must be worn when entering the room.
• After gown removal, ensure that clothing does not contact potential contaminated environmental surfaces.

**Patient-Care Equipment and Articles:**

• Sharps are to be disposed of immediately after use in puncture resistant containers located as close to the area of use as possible. Needles are not to be recapped, bent, broken or manipulated. In the event that, during a procedure a needle must be recapped, the one-handed scoop method, or the use of a needle re-sheathing device is acceptable. Two-handed recapping is prohibited.
• Contaminated reusable critical medical devices or patient-care equipment (e.g., equipment that enters sterile tissue or through which blood flows) or semi-critical (e.g., equipment that touches mucous membranes) is to be sterilized or disinfected after use. The type of reprocessing is determined by the article and its intended use. Sterile Processing personnel can be of assistance if needed.
• Dedicate use of non-critical patient-care equipment to a single patient. The equipment must be cleaned and disinfected after each use with the hospital approved disinfectant.
• Single use equipment (e.g., disposable stethoscope, blood pressure cuff) is to be disposed of after patient
Airborne/Droplet Precautions:

• Utilize routine cleaning procedures.
• When possible, dedicate the use of noncritical patient-care equipment to a single patient.
  ◦ If use of common equipment is unavoidable, then adequately clean and disinfect them with the hospital approved disinfectant before use for another patient.

Dishes, Glasses, Cups, and Eating Utensils:

• No special precautions are needed. Either disposable or reusable dishes can be used for patients on Isolation Precautions. The combination of hot water and detergents used in dishwashers is sufficient to decontaminate dishes, glasses, cups, and eating utensils.

Routine and Terminal Cleaning:

• The room and bedside equipment of patients on Transmission-based Precautions are cleaned using the same procedures that are used for other patients.
• The exception: A sporacidal and/or bleach-based disinfectant is required cleaning for patients with a diarrheal illness such as C. difficile which can survive on environmental surfaces for prolonged periods of time. Patients admitted to rooms previously occupied by patients infected or colonized with such pathogens are at increased risk of infection from contaminated environmental surfaces and equipment. (Refer to Multiple Drug-Resistant Organism (MDRO) Policy and Procedure.)
• Upon discharge or transfer to another room, the vacated room will be terminally cleaned and UV surfacide lighting will be utilized (refer to Surfacide Clean Room Procedures Policy).

Related Policies, Documents, & Forms

• Infection Prevention - Neutropenic Precautions
• COVID-19 Positive Patients Isolation Precaution Discontinuation Policy
• Airborne Isolation Precautions Sign (attached)
• Droplet Precautions Sign (attached)
• Enhanced Droplet / Contact Precautions Sign (attached)
• Contact Isolation Precautions Sign (attached)
• Contact-Plus Isolation Precautions Sign (attached)
• Recovered Enhanced Precautions Sign (attached)
• Criteria for C-Diff Stool Collection (attached)

References/Citations

Attachments

Criteria for C-Diff Stool Collection
Recovered Enhanced Precautions Sign
Contact-Plus Isolation Precautions Sign
Contact Isolation Precautions Sign
Enhanced Droplet / Contact Precautions
Droplet Precautions Sign
Airborne Isolation Precautions Sign

Approval Signatures

<table>
<thead>
<tr>
<th>Approver</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Janet Carroll: Chief Nursing Officer</td>
<td>9/17/2020</td>
</tr>
<tr>
<td>Angela Board: Document Control Manager</td>
<td>9/17/2020</td>
</tr>
<tr>
<td>Mary Matice</td>
<td>9/17/2020</td>
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Applicability

Canton-Potsdam Hospital, Gouverneur Hospital, Massena Hospital, St. Lawrence Health System