TRANSMISSION BASED PRECAUTIONS

**PURPOSE:** Transmission-Based Precautions are designed for patients documented or suspected to be infected with highly transmissible or epidemiologically important pathogens for which additional precautions beyond Standard Precautions are needed to interrupt transmission. The five categories of Transmission-Based Precautions include:

1. Airborne Precautions
2. Contact Precautions
3. Enteric Precautions
4. Droplet Precautions
5. Protective Environment Precautions

**POLICY:**

1. These categories may be combined for diseases that have multiple routes of transmission. When used either singularly or in combination, they are to be used in addition to Standard Precautions.

2. Epidemiology, nursing and/or medical staff has the authority and responsibility to implement transmission-based precautions.

3. The Hospital Epidemiologist has the ultimate authority to make decisions regarding transmission-based precautions when conflicts arise.

**PROCEDURE:**

1. Patients with known or suspected communicable diseases must be placed in appropriate isolation as soon as possible to prevent transmission.

2. The appropriate isolation sign must be placed on the patient’s door entryway to assure that all who enter the room follow proper isolation techniques.

3. To ensure appropriate signage including color the signs must not be reproduced or copied on the nursing units. Once Isolation Precautions are discontinued for a patient the sign must be removed from the door after the room has been thoroughly cleaned and replaced back in the designated storage area.

4. A physician order must be written prior to or subsequent to placing a patient on isolation. Isolation must be documented on the Patient Care Plan.

5. Patients and their families as needed, will be educated about the need for the transmission based precautions and the organism involved. Educational postings are available on the nursing Web Site under the Infection Control tab in the forms section and should be provided to patients and families. The education will be documented in the Patient Care Plan.

6. All visitors must comply with the isolation precautions in place. Any visitor refusing to comply will not be allowed to enter the patient’s room.

7. All staff entering the room must wear appropriate PPE as indicated on the sign posted.

8. Appropriate PPE (personal protective equipment) must be available for all healthcare
providers. Items include gowns, gloves, surgical masks (for Droplet Precautions), Positive Air Purifying Respirators (PAPR’s) for Airborne Precautions. Health-care facility workers should enter the room wearing a PAPR or if fit tested within the last year, an N95 respirator. (Infection Control Manual (ICM) Section 2, Policy Number 2.1).

9. Appropriate disposal containers must be available so that PPE can be disposed properly.

10. After PPE is removed, hand hygiene must be performed immediately.

11. Hospital approved disinfecting solutions must be made available so that equipment emerging from the isolation room can be cleaned.

12. When an isolated patient is transported for care to another unit, (i.e., radiology, physical therapy), isolation information must be forwarded to the receiving unit so that preparations can be made to accept the patient.

13. In those situations where the transport of a patient is necessary, appropriate barriers (i.e. masks, impervious dressings) will be worn by the patient to reduce the opportunity for transmission of pertinent microorganisms to other patients, personnel and visitors and to reduce the contamination of the environment. (ICM Section 2, Policy Number 2.6 Transporting Infected or Colonized Patients)

14. When contact/droplet and or enteric isolation precautions are discontinued/or the patient is discharged, the precaution sign must remain posted and precautions followed until the room is thoroughly cleaned per Environmental services protocol.

   a. If precautions are discontinued but patient will remain hospitalized the patient should be moved to a clean room and a clean bed. If this is not possible, the room and bed should be thoroughly cleaned at a time when the patient is not in the room (i.e. when patient is off the unit at a test or procedure). Isolation Precautions sign should remain posted until room/bed are thoroughly cleaned.

15. A single occupancy/private room is required for Transmission Based Precautions; however cohorting of patients who have a confirmed diagnosis of the same pathogen is permitted.
<table>
<thead>
<tr>
<th>Type of Transmission-Based Precaution</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Airborne Precautions</strong></td>
<td>Patients who have or may have an infectious disease that is spread by the airborne route must be placed on Airborne Precautions (formerly Respiratory “STOP” Sign isolation) in addition to Standard Precautions.</td>
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<tr>
<td>Diseases Requiring Airborne Precautions:</td>
<td>- Tuberculosis, Pulmonary (or laryngeal) Suspected or confirmed</td>
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<td>- Varicella (chickenpox)</td>
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<td>- Herpes Zoster (shingles) disseminated or in an immunocompromised patient</td>
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<td>- Rubeola (Measles)</td>
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<tr>
<td><strong>Personal Protective Equipment Required</strong></td>
<td>- Airborne Precautions require the use of an N95 respirator or a PAPR (positive air purified respirator)</td>
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<tr>
<td>Contact Precautions</td>
<td>In addition to Standard Precautions, use Contact Precautions for patients known or suspected to have illnesses transmitted by direct patient contact or by contact with items in the patient's environment.</td>
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### Diseases Requiring Contact Precautions:

- Gastrointestinal, respiratory, skin, or wound infections 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 e.g., MRSA & VRE.
- Respiratory syncytial virus, parainfluenza virus, or enteroviral infections in infants.
- 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
    - Viral hemorrhagic infections (Ebola, Lassa, or Marburg)

*FOR THE FOLLOWING INFECTIONS REQUIRING CONTACT PRECAUTIONS USE THE ENTERIC PRECAUTIONS SIGNAGE:*

- Enteric infections with a low infectious dose or prolonged environmental survival, including:
  - *Clostridium difficile*
  - For diapered or incontinent patients:
    - *Enterohemorrhagic Escherichia coli O157:H7, Shigella, hepatitis A, or rotavirus*

### Personal Protective Equipment Required

- Contact Precautions requires the use of isolation gowns and gloves for staff entering room.
  - It is not required for visitors to wear gowns and gloves unless they participate in patient care.
  - Visitors are instructed to wash hands when entering and leaving patient rooms.
### Type of Transmission-Based Precaution

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<tbody>
<tr>
<td>In addition to Standard Precautions, use Enteric Precautions for patients</td>
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<tr>
<td>known or suspected to have illnesses transmitted by contact transmission of</td>
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<tr>
<td>infectious agents involved with the gastrointestinal system.</td>
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<tr>
<td>• Gastrointestinal infections judged by the infection control program,</td>
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<tr>
<td>based on current state, regional, or national recommendations, to be of</td>
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<tr>
<td>special clinical and epidemiologic significance.</td>
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<td>• Enteric infections with a low infectious dose or prolonged environmental</td>
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<tr>
<td>survival, including:</td>
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<tr>
<td>• <em>Clostridium difficile</em></td>
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<td>• For diapered or incontinent patients:</td>
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<td>o <em>Enterohemorrhagic Escherichia coli</em> O157:H7, Shigella, hepatitis A,</td>
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<td>or rotavirus</td>
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### Enteric Precautions

**Personal Protective Equipment Required**

- Enteric Precautions requires the use of isolation gowns and gloves for staff entering room.
  - It is not required for visitors to wear gloves unless they participate in patient care.
  - Visitors are instructed to wash hands when entering and leaving patient rooms.
### Type of Transmission-Based Precaution | Description
---|---
**Droplet Precautions** | • In addition to Standard Precautions, use Droplet Precautions for patients known or suspected to have illnesses transmitted by droplet transmission of infectious agents.  
• Droplet transmission involves contact of the conjunctivae or the mucous membranes of the nose or mouth of a susceptible person with large particle droplets containing microorganisms generated from a person who exhibits a clinical disease or who is a carrier of the microorganism.  
• A patient can generate these droplets from coughing, sneezing, and talking, as well as during certain procedures such as suctioning, intubation and bronchoscopy.  
• Transmission via large droplets requires close contact (within 3 feet or less) between the source patient and the susceptible individual. Droplets (due to their large size) do not remain suspended in air and travel short distances - three feet or less.  
**Diseases Requiring Droplet Precautions:**  
• **Bacterial:**  
  • Invasive *Hemophilus influenzae* disease: meningitis, pneumonia (in infants and small children), and epiglottitis.  
  • Invasive *Neisseria meningitidis* disease: meningitis,  
  • Pneumonia and bacteremia.  
  • *Mycoplasma pneumonia*  
  • Group A Streptococcal pharyngitis, pneumonia, or scarlet fever in infants and young children  
• **Viral:**  
  • Influenza  
  • Adenovirus  
  • Mumps  
  • Rubella  
  • *Parvovirus B19*  

**Personal Protective Equipment Required**  
• Droplet Precautions require the use of a standard surgical mask within three feet of the patient. However, it is prudent to wear a mask upon entering the room of a patient on Droplet Precautions to avoid any inadvertent exposure.  
• Hand hygiene must be performed after leaving room and removing mask.
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| **Protective Environment Precautions** | • Protective isolation does not appear to decrease the risk of infection any more than a strong emphasis on appropriate handwashing and routine good patient care techniques during patient care, therefore, no extraordinary measures shall be taken.  
• A Protective Environment Precautions sign may be used at the discretion of the nursing or medical staff caring for the patient.  
• Precautions implemented for patients with an Absolute Neutrophil Count (ANC) of 500 or less.  
• Highly compromised patients should be kept separate from patients who are infected or have conditions that make infection likely. A private room should be made available whenever possible. Do not use a negative pressure room. Exception: Tuberculosis or rule-out tuberculosis.  
• Health-care workers with respiratory symptoms/infections should be reassigned until asymptomatic. If that is not possible, those workers must wear a surgical mask when caring for the patient.  
• No flowers/plants are allowed for patients who have received a solid organ transplant within the last 3 months |
| **Personal Protective Equipment Required** | • Masks should be worn by all who enter the room who have a respiratory symptoms/infection. |
| **Conditions When Protective Environment Precautions May be Used:** | • Solid Organ Transplant Recipients  
• Neutropenic patients |


Facilities Management, Policy and Procedures Manual Instruction #400, 53.

Lynch, P and Jackson M. Body Substance Isolation.

University of Connecticut Health Center Policy for Tuberculosis Risk Assessment, Control of Occupational Exposures to Tuberculosis and Exposure Control Plan

Policy 04-01 Alphabetical list of diseases requiring Airborne Respiratory Precaution Isolation.

APPROVAL:  Infection Control Committee

REVISION DATES:  1/09, 2/10

REVIEWED DATES: