ISOLATION PRECAUTIONS – INPATIENT SETTINGS

POLICY: When necessary, transmission based precautions, based on recommendations in the Centers for Disease Control and Prevention’s *Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007*, will be implemented in addition to Standard Precautions.

Transmission based precautions require the use of personal protective equipment (i.e. gowns, gloves, masks, respirators, eye protection).

The need for transmission based (isolation) precautions will be determined using the Infection Prevention Policy titled “Isolation Table”.

PURPOSE: Transmission based (isolation) precautions are intended to prevent transmission of epidemiologically important organisms between patients or to care providers and visitors.

PROCEDURE: The addenda below describe the current standards and procedures.

Reviewed by: Julie Smith, Infection Prevention
Georgeann Hagland, Inpatient Medical Unit Director
Bonnie Fryzlewicz, SCCA Unit Director

Revised by: Joan Heath, Infection Prevention

Approved by the Infection Prevention Department: 2/11

APPROVED BY:

Danielle Zerr, MD
Associate Medical Director for Patient Safety – Hospital Acquired Infections

Joan Heath, RN, BSN, CIC
Director, Infection Prevention

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REFERENCES:


CDC Seasonal Influenza, Infection Control In Healthcare Facilities

CDC - Seasonal Influenza (Flu) - Infection Control in Health Care Facilities
ADDENDUM I: Isolation Categories

I. Contact Precautions – (Goldenrod Sign)

A. Direct and indirect contact transmission is the most frequent route of transmission of hospital acquired infections.

B. Direct contact transmission occurs when there is direct body-to-body transfer of microorganisms between an infected or colonized person and a susceptible host.

C. Indirect contact transmission occurs when an inanimate object, such as equipment used on the infected person or unwashed hands, serves as a vector of transmission between the susceptible host and the infected person.

D. Specific recommendations for Contact Precautions include:
   1. place patient in a single room
   2. wash hands thoroughly or use alcohol hand gel
   3. put on a gown and gloves before entering the patient’s room
   4. remove gown and gloves just inside the door to the patient’s room and discard within the room
   5. wash hands thoroughly or use alcohol hand gel after glove and gown removal
   6. dedicate equipment to the isolated patient. If this is not possible, equipment must be disinfected before being used on another patient
   7. the patient must remain in the isolation room at all times except for essential tests or procedures that cannot be performed in the room
   8. the patient must wear a cover gown and gloves when out of the room. Consult with an infection prevention practitioner if this is not possible due to patient’s age or developmental level.
   9. notify receiving departments of the need for and type of isolation when the patient goes for tests or procedures

II. Contact Enteric Precautions – (Goldenrod Sign with Brown Panel)

A. Contact Enteric Precautions are used for patients with *C. difficile*-associated disease.

B. The recommendations for patient care include all of the above recommendations for Contact Precautions, but in addition, hand washing with soap and water is required when caring for patients with *C. difficile*-associated disease. Alcohol-based hand rubs may not as effective against spore-forming bacteria.
III  Droplet Precautions (Green Sign)
A.  Droplet transmission occurs when droplets containing microorganisms generated from the infected person, primarily during coughing, sneezing, or talking, or during procedures which generate secretions (suctioning, bronchoscopy, etc) are propelled a short distance and deposited on the susceptible host’s eyes, nose, or mouth.
B.  These droplets are relatively large and do not remain suspended in the air, therefore negative pressure rooms are not necessary.
C.  Recommendations for Droplet Precautions include:
   1.  place the patient in a single room
   2.  wash hands thoroughly or use alcohol hand gel before entering and after exiting the room
   3.  put on an isolation mask before entering the patient’s room
   4.  patients may not leave the room except for essential tests or procedures that cannot be performed in the isolation room.
   5.  the patient should wear an isolation mask when out of the room. Consult with an infection prevention practitioner if this is not possible due to patient’s age or developmental level.
   6.  notify receiving departments of the need for and type of isolation when patient goes for tests or procedures

IV.  Airborne Contact Precautions (Blue Sign with brown panel)
A.  Airborne Contact Precautions are used to prevent transmission of varicella (chickenpox, disseminated herpes zoster, or localized zoster in an immune compromised patient).
B.  Recommendations for Airborne Contact Precautions include:
   1.  a negative pressure, single room is required. (See Addendum IV)
   2.  the door to the room must remain closed at all times
   3.  persons not immune to varicella should not enter the room. Alternate caregivers should be assigned to the patient
   4.  if susceptible persons must enter the room of a patient with varicella, an isolation mask should be worn but this may not be completely protective. Persons immune to these viruses need not wear a mask
   5.  wash hands thoroughly or use alcohol hand gel
   6.  put on a gown, and gloves before entering the patient’s room. As part of Standard Precautions, a mask and eye protection are required for close contact (within 3 feet) with a coughing patient
   7.  remove gown, and gloves just inside the door to the patient’s room and discard within the room
   8.  wash hands thoroughly or use alcohol hand gel after gown and glove removal
   9.  dedicate equipment to the isolated patient. If this is not possible, equipment must be disinfected before being used on another patient
10. patients may not leave the isolation room except for essential tests or procedures that cannot be performed in the room. The patient wears a cover gown and gloves and, if possible, an isolation mask when out of the room. Consult with an infection prevention practitioner if this is not possible due to patient’s age or developmental level.

11. notify receiving departments of the need for and type of isolation when patient goes for tests or procedures

12. See Addendum IV for length of time the room must remain empty after the patient leaves or is discharged before respiratory protection is no longer needed

V. Airborne Respirator Precautions (Blue Sign with Pink Panel)

A. Airborne Respirator Precautions are used to prevent the spread of TB.

B. Airborne transmission occurs by dissemination of airborne droplet nuclei, tiny particles containing microorganisms that remain suspended in the air for long periods.

C. These microorganisms are generated from the infected person, generally by coughing, sneezing, and talking, or by procedures which generate secretions (suctioning, bronchoscopy, etc) and may be inhaled by a susceptible host. (Refer to the Children’s Hospital TB Control policies on-line for more specific information.)

D. In brief, recommendations for Airborne Respirator Precautions include:
   1. a negative pressure, single room is required. (See Addendum IV)
   2. the door to the room must remain closed at all times
   3. wash hands thoroughly or use alcohol hand gel before entering and after exiting the room
   4. use a powered air-purifying respirator (PAPR) or N 95 respirator when in the room
   5. visitors will be restricted to parents or 2 designated primary caregivers
   6. parents / primary caregivers will be screened for evidence of pulmonary tuberculosis and will be isolated to the room with the patient until the evaluation is completed
   7. patients may not leave the isolation room except for essential tests or procedures that cannot be performed in the room.
   8. If possible, the patient wears an isolation mask when out of the room. Consult with an infection prevention practitioner if this is not possible due to patient’s age or developmental level.
   9. notify receiving departments of the need for and type of isolation when patient goes for tests or procedures. Whenever possible, tests and procedures should be performed in negative pressure settings. Contact Infection Prevention for advice if this is not possible
   10. refer to Addendum IV (below) for length of time the room must remain empty after the patient leaves or is discharged before respiratory protection is no longer needed.
VI. Viral Respiratory Precautions (Salmon Sign)

Alert – please see information on Strict Isolation immediately below for initial isolation of patients with viral respiratory infections

A. Viral Respiratory Precautions are used to prevent transmission of viral illnesses such as RSV and Parainfluenza.
B. Such illnesses are primarily spread by direct or indirect contact transmission and staff members can self-inoculate by touching their eyes, nose, or mouth while delivering care.
C. Therefore, principles of both Contact and Droplet Precautions are utilized in the care of these patients. (For a thorough discussion of prevention of transmission of RSV, see the specific RSV Policy in the on-line Infection Prevention Policies.)
D. Recommendations for Viral Respiratory Precautions include:
   1. place patient in a single room whenever possible. Patients with the same illnesses may be cohorted.
   2. wash hands thoroughly or use alcohol hand gel
   3. put on a gown, gloves, and isolation mask before entering the patient’s room
   4. put on eye protection if working within 3 feet of a coughing patient AND during open suctioning of patients on viral respiratory precautions
   5. remove gown, gloves, and mask just inside the door to the patient’s room and discard within the room
   6. wash hands thoroughly or use alcohol hand gel after glove and gown removal
   7. dedicate equipment to the isolated patient. If this is not possible, equipment must be disinfected before being used on another patient.
   8. patients may not leave the isolation room except for essential tests or procedures that cannot be performed in the room.
   9. patients should wear gown, gloves, and masks when out of the isolation room. Consult with an infection prevention practitioner if this is not possible due to patient’s age or developmental level.
   10. notify receiving departments of the need for and type of isolation when patient goes for tests or procedures.

VI. Strict Isolation

A. Strict isolation is used for patients with known or suspected influenza of any strain.
B. Influenza is transmitted primarily via the droplet route (see Droplet Isolation above), but recent experience with H1N1 influenza has raised concern about airborne transmission during aerosol generating procedures.
C. CDC recommends that staff wear a respirator (N-95 mask or powered air purifying respirator [PAPR]) when performing aerosol-generating procedures on patients with suspected or confirmed influenza.
D. The Infection Prevention Department will communicate the beginning and ending of influenza season annually, which generally lasts from late December to late March in our region.

1. During influenza season, all patients with symptoms of viral respiratory illness will initially be placed in Strict precautions rather than Viral Respiratory Precautions.

2. All components of Viral Respiratory Precautions apply.

3. In addition, bedside staff will wear respirators (N-95 masks or PAPRs) when performing aerosol generating procedures on a patient with symptoms of a viral respiratory illness. Other staff within the room during the procedure will also wear respirators.

4. Staff will continue to wear respirators within the patient space for an appropriate length of time after the performance of aerosol generating procedures (to allow time for the HVAC system to clear aerosols). See Table 2 in Addendum IV of this policy.

5. Aerosol generating procedures include but may not be limited to:
   a. Open airway suctioning
   b. Collection of respiratory specimens
   c. Resuscitation
   d. Endotracheal intubation
   e. Bronchoscopy
   f. When entering the room of a patient on an oscillating vent

6. If influenza is confirmed, the patient will be moved to a negative pressure room and the above precautions will continue until discharge or resolution of the illness.

7. If viral testing is not performed, the above precautions will continue until discharge.

8. If influenza is ruled out via DFA or PCR, the patient may be removed from Strict Precautions and placed in Viral Respiratory Precautions.

VI. Special Precautions
Unique infectious disease scenarios will require development of targeted isolation protocols. In these cases, isolation protocols will be developed using recommendations from public health entities and a sign summarizing required isolation practices will be created.
ADDENDUM II: ACTIVITY PLANS

I. Patients who are expected to have long or recurrent hospital stays may be adversely affected by prolonged isolation precautions.

II. Individual activity plans may be developed for such patients by infection prevention practitioners that outline methods of allowing for exercise, time out of inpatient rooms, and therapy activities while minimizing risk to other patient, visitors, and staff members.

III. Patient care staff who feel that a patient would benefit from an activity plan should contact the Infection Prevention Department for consultation.
ADDENDUM III: Family Members of and Visitors to Patients in Isolation

I. Because Children’s Hospital embraces the principles of family centered care, families of patients are encouraged to visit in order to care for and support the hospitalized patient.

II. The following guidelines, however, should be followed when the patient is in isolation.

III. Any concerns regarding the implementation of this policy for patients in isolation will be discussed with the charge nurse.

IV. For patients in isolation on all inpatient units, including ICUs:
   A. visitors other than parents or designated primary caregivers should be discouraged.
      Visitors should wear personal protective equipment (gowns, gloves, masks, eye protection) as required by the specific type of isolation when inside the patient’s room.
   B. siblings under the age of 10 will not be allowed in isolation rooms.
      1. Exceptions may be made on a case-by-case basis – Infection Prevention should be consulted.
      2. For the SCCA Unit – because all patients in isolation are placed in single rooms on this unit, the frequent hospitalizations required, and the serious impact of hematology/ oncology diagnoses on families, siblings under 10 years of age will be allowed to visit patients in isolation on the SCCA Unit as long as all other guidelines are followed. Siblings may not use any shared spaces on the unit, except bathrooms, at any time, even prior to entering the patient’s room.
         Consultation with an infection prevention practitioner is recommended.
   C. family members of patients in isolation are not required to wear personal protective equipment (gowns, gloves, masks, eye protection) but will remain isolated to the room with the patient and will not use any shared patient spaces on the unit, i.e. Nutrition Rooms, Playroom, clean utility rooms.
   D. family members will be expected to perform hand hygiene before entering and upon exiting the patient’s room
   E. family members, if not felt to be infectious and after washing hands thoroughly or using alcohol hand gel, may use public restrooms and other public spaces in the hospital at large, including the cafeteria.
   F. family members of patients isolated for communicable diseases, if suspected to be infectious themselves, may be restricted from the hospital until cleared by Infection Prevention or the Infectious Disease Service (contact the on call infection prevention practitioner after hours and on weekends). Infection Prevention should be consulted for appropriate barrier precautions for such family members if restriction from the hospital is not possible or desirable.
ADDEMDUM IV: Negative Pressure Rooms / Air Exchange Tables

Table 1

<table>
<thead>
<tr>
<th>Unit / Area</th>
<th>Preferred</th>
<th>Others</th>
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<tr>
<td>PACU</td>
<td>Exam Rooms 1 through 8</td>
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<td>ED</td>
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### Table 2

<table>
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<tr>
<th>Hospital Location</th>
<th>Air Changes / Hour</th>
<th>Time Delay before Respiratory Protection can be discontinued</th>
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<tr>
<td>Train, all inpatient units (except IPU*)</td>
<td>12-15</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Giraffe, all inpatient units</td>
<td>12-15</td>
<td>30 minutes</td>
</tr>
<tr>
<td>SCCA inpatient unit</td>
<td>12-15</td>
<td>30 minutes</td>
</tr>
<tr>
<td>ED</td>
<td>11-12</td>
<td>30 minutes</td>
</tr>
<tr>
<td>OR</td>
<td>15-25</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Radiology</td>
<td>12</td>
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<tr>
<td>Ambulatory Clinics – Whale Building</td>
<td>12</td>
<td>30 minutes</td>
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<tr>
<td>Bellevue Clinic</td>
<td>10-12</td>
<td>30 minutes</td>
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<tr>
<td>Ambulatory Clinics – Balloon*</td>
<td>3-4</td>
<td>3 hrs</td>
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<td>Ambulatory Clinics – other areas*</td>
<td>3-5</td>
<td>3 hrs</td>
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</tbody>
</table>

*Negative pressure rooms are not available in this area and patients requiring Airborne Respirator, Airborne Contact, or Strict Isolation should not be housed there.
ADDEMDUM V: Transporting Patients In Isolation

I. Contact and Contact Enteric Precautions (Goldenrod signs):
   A. Clean your hands
   B. Put on gown and gloves to enter the room and transfer the patient to wheelchair or gurney
   C. Cover the patient from the neck down with a clean sheet or blanket
   D. Remove gown and gloves inside the patient’s room and place in soiled linen hamper
   E. Clean your hands and put on clean gloves
   F. Transport patient
   G. Put on gown and gloves at destination if helping to transfer the patient
   H. Wipe down wheelchair or gurney with hospital disinfectant
   I. Remove gown and gloves and place in soiled linen hamper
   J. Clean your hands

II. Droplet Precautions (Green sign):
   A. Clean your hands
   B. Put on an isolation mask to enter the patient’s room
   C. Place an isolation mask on the patient
   D. Remove your mask inside the patient’s room
   E. Clean your hands and transport the patient
   F. If patient is too young to wear a mask or cannot tolerate a mask:
      1. Wear your mask for the duration of the transport
      2. Transport quickly to destination, maintaining a 3 foot distance from individuals along the route. This may require asking others to vacate elevators or confined spaces.

III. Viral Respiratory Precautions (Salmon sign):
   A. Clean your hands
   B. Put on gown, gloves and mask to enter the room and transfer the patient to wheelchair or gurney
   C. Cover the patient from the neck down with a sheet or blanket
   D. Place a standard surgical mask on the patient
   E. Remove gown and gloves inside the patient’s room and place in soiled linen hamper
   F. Clean your hands and put on clean gloves
   G. Transport the patient
   H. Put on gown, gloves, mask and eye protection at destination if helping to transfer the patient
   I. Wipe down wheelchair or gurney with hospital disinfectant
   J. Remove protective equipment and place in soiled linen hamper
   K. Clean your hands
   L. If patient is too young to wear a mask or cannot tolerate a mask:
      1. Wear your mask for the duration of the transport
      2. Transport quickly to destination, maintaining a 3 foot distance from individuals along the route. This may require asking others to vacate elevators or confined spaces.
IV. **Strict Precautions (bright green sign – Influenza)**
   A. Same as viral respiratory precautions above

V. **Airborne Contact Precautions (Blue sign with brown panel – Chickenpox):**
   A. Clean your hands
   B. Put on gown and gloves to enter the room and transfer the patient to wheelchair or gurney
   C. Cover the patient from the neck down with a sheet or blanket
   D. Place an isolation mask on the patient
   E. Remove gown and gloves inside the patient’s room and place in soiled linen hamper
   F. Clean your hands and put on clean gloves
   G. Transport the patient
   H. Put on gown and gloves at destination if helping to transfer the patient
   I. Wipe down wheelchair or gurney with hospital disinfectant
   J. Remove gown and gloves and place in soiled linen hamper
   K. Clean your hands
   L. If patient is too young to wear a mask or cannot tolerate a mask:
      1. Transport quickly to destination
      2. Ask others to vacate elevators or confined spaces.

VI. **Airborne Respirator Precautions (Blue sign with pink panel – Tuberculosis):**
   A. Clean your hands
   B. Put on PAPR to enter the patient’s room
   C. Place an isolation mask on the patient
   D. Remove your PAPR outside the patient’s room
   E. Clean your hands and transport the patient
   F. If patient is too young to wear a mask or cannot tolerate a mask, transport quickly to destination, asking others to vacate elevators or confined spaces.

VII. **Special Precautions**
   A. Follow the instructions on the reverse of the sign.