# 01.19 Isolation

Purpose

To facilitate safe care of all patients presenting themselves to The University of Texas Medical Branch Hospitals with a known or suspected communicable disease.

Audience

All employees of UTMB hospitals, clinics, outpatient surgical center, contract workers, volunteers, and students who have contact with patients in isolation at UTMB.

Policy

- Standard Precautions which include Universal Precautions will be used in the care of all patients since medical history and examination cannot reliably identify patients infected with bloodborne pathogens.

- Patients with known or suspected communicable diseases will be placed on the appropriate type of isolation precautions on admission to the hospital or when seen in UTMB clinics.

- If a physician's order for isolation does not accompany the patient to the unit, nursing personnel will initiate isolation precautions.

- Healthcare Epidemiology personnel may initiate isolation precautions for patients whose infectious disease(s) is/are detected by laboratory results: i.e. patients with positive AFB sputum smears, cultures for MRSA or other resistant organisms, etc.

- In any of the above circumstances a physician's order for isolation will be obtained at the earliest possible time.

- Isolation equipment and supplies may be obtained from Clinical Equipment Services (CES), Materials Management, and the Laundry. (Masks may be ordered directly from Materials Management). Isolation carts for Contact Precautions, Modified Contact Precautions, Extended Contact Precautions and All Barrier Precautions are available from CES.

- Questions concerning isolation precautions during non-office hours may be referred to Healthcare Epidemiology, pager 643-3133.

- Isolation signs and labels may be obtained from Materials Management.

- Everyone, including physicians, medical students, nurses, employees of environmental services, technicians, etc. is responsible for complying with isolation precautions and for tactfully calling observed infractions to the attention of offenders.

- Upon patient discharge, unused disposable items that can be easily wiped with a hospital-grade disinfectant may remain in the room for the next patient. Other disposable items with surfaces that are difficult to clean will be disposed of with routine waste.

Nursing Responsibilities

- The Department of Healthcare Epidemiology should be contacted when a patient is placed in isolation and when isolation is discontinued.

- If a patient is to be transported to another location (OR, Radiology, etc.) nursing should notify the Transportation Department and the receiving department prior to transport, that the patient is on a particular type of isolation precautions.

- The patient's chart and door should display the appropriate isolation sign.

- Hospital personnel should instruct visitors about precautions to be taken while visiting or attending patients in isolation.

All patients in isolation will be reviewed daily by the nurse in charge and responsible physician(s) to determine the need for change in isolation status or for discontinuing isolation. Findings will be noted in the patient's medical record.

Transportation Department Responsibilities

- Transport patients by the most direct routes to their destination. Avoid contact with employees and visitors as much as possible.

- Disinfect wheelchairs and stretchers with a hospital-grade disinfectant after use for a patient on isolation and prior to returning the wheelchair/stretcher to service.

- Cleaning of wheelchairs will be focused on the seat, arm rest, and back rest. The metal portion of the wheelchair will be inspected for contamination with blood and other body fluids and once removed, all surfaces decontaminated with a hospital grade disinfectant.

- Cleaning of the stretchers will focus on the upper and lower surfaces of the stretcher pad. The metal portion of the stretcher will be inspected for contamination with blood and body fluids and once removed, all surfaces decontaminated with a hospital grade disinfectant.

**Patient Compliance**

In the event a patient is non-compliant with the isolation precautions the following steps will be taken:

- The nurse and or physician will explain the isolation precautions to the patient and encourage the patient's compliance with the precautions (i.e. staying in the room, wearing a mask).
- If the patient is still non-compliant, a case conference will be called, as soon as possible, within 24 hours of the infraction to create a plan of action. At minimum, the patient's physician, nurse, and a mental health professional, in addition to a member of the Department of Healthcare Epidemiology, will be in attendance.
- The plan of action may include continued education of the patient, seclusion, or discharge.

**Isolation Precautions**

Guidelines for specific types of isolation are listed below, and include:

Airborne, All Barrier, Droplet, Contact, Modified Contact and Extended Contact Precautions.

**Airborne Precautions**

Airborne Precautions will be used for patients known or suspected to be infected with microorganisms transmitted by airborne droplet nuclei (small-particle residue [3-5μm 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).

Airborne Precautions include:

***PRIVATE ROOM*** - necessary for all patients in this category.

- Monitored negative air pressure in relation to the surrounding areas.
- Six (6) to twelve (12) air changes per hour, and
- Appropriate discharge of air outdoors or monitored high-efficiency filtration of room air before the air is recirculated to other areas in the hospital.

***WHEN PRIVATE ROOM IS NOT AVAILABLE:***

- Place the patient in a room with a patient who has infection with the same microorganism (same species) with no other infection (cohorting).
- If cohorting is not achievable, consultation with the Department of Healthcare Epidemiology is necessary before patient placement.

***RESPIRATORY PROTECTION*** - A particulate respirator (N-95) will be worn when entering the room for all patients in this category.

- Persons susceptible to measles (Rubeola) or chickenpox (Varicella Zoster Virus) will not enter the room of patients known or suspected to have measles or chickenpox if other immune caregivers are available.
- For chickenpox, a gown and gloves will also be worn.

***DOOR -*** Keep the room door closed and the patient in the room. Place an Airborne Precautions sign on the patient's door.

***CHART –*** Place an Airborne Precautions sign on the front of the patient's chart.

***HANDS -*** Will be washed with an antimicrobial soap or an alcohol hand rub will be applied before entering and after leaving the room.

***PATIENT TRANSPORT -*** Limit the movement and transport of the patient from the room to essential purposes only. If transport is necessary, place a surgical mask on the patient during transport. A mask is not necessary for the transporter.

All Barrier Precautions

All Barrier Precautions is a combination of Standard Precautions, Airborne and Contact Precautions. All Barrier Precautions will be used for patients known or suspected to have an Emerging Infectious Disease (EID).

All Barrier Precautions include:

***PRIVATE ROOM*** – necessary for all patients in this category.

- Monitored negative pressure in relation to the surrounding areas.
- Six (6) to twelve (12) air exchanges per hour, and
- Appropriate discharge of air outdoors or monitored high-

efficiency filtration of room air before the air is recirculated to other areas in the hospital.

***PERSONAL ITEMS*** – All rings watches, bracelets, pagers, or any other personal items should be removed prior to donning personal protective equipment (PPE) as described below.

***RESPIRATORY PROTECTION*** – A particulate respirator (N-95) will be worn when entering the room for all patients in this category.

- Healthcare workers who enter the room must have been previously fit tested for the N-95 mask. If not, the healthcare worker must not enter the room.

***PROTECTIVE EYEWEAR*** – Wear protective eyewear when entering the room.

***FACESHIELD*** – Wear faceshield over the N-95 mask and goggles when performing endotracheal suctioning.

***GLOVES*** – Wear gloves (clean, nonsterile gloves are adequate) when entering the room.

***GOWNS*** – Wear a gown when entering the room.

***HANDS -*** Will be washed with an antimicrobial soap or an alcohol hand rub applied before entering and after leaving the room.

***DONNING PPE ORDER***:

- Don gown
- Don N-95 mask
- Don goggles
- Don gloves
- Make sure gown is secured behind the neck and with the tie behind the back
- Pull gloves up over gown sleeve cuffs

***ORDER OF REMOVAL OF PPE:***

- Remove gloves
- Remove protective eyewear
- Remove gown
- Exit room and WASH HANDS or APPLY AN ALCOHOL HAND RUB, then remove the N-95 mask and WASH HANDS OR APPLY AN ALCOHOL HAND RUB.
- See http://www.utmb.edu/hce/ or Healthcare Epidemiology under Clinical on the UTMB home page.

***POWERED AIR-PURIFYING RESPIRATOR (PAPR)-***PAPR's will be worn during bronchoscopy, endotracheal intubation, endotracheal tube suctioning when not using a closed system suction device, when aerosolized medications are being administered or during other high-risk respiratory procedures.

***DOOR -*** Keep the room door closed and the patient in the room. Place an All Barrier Precautions sign on the patient's door.

***CHART*** – Place an All Barrier Precautions sign on the front of the patient's chart.

***FOOD TRAYS –*** Patients will be served meals on disposable food trays.

***SPECIMENS*** – Label with "All Barrier Precautions" sticker. Specimens will be double bagged at the patient's door. The person on the outside of the door must wear gloves, gown, and an N-95 mask.

***TRASH AND LINEN*** – Trash and linen must be double bagged at the patient's door. Linen will be double bagged into a color coded bag. The person on the outside of the door must wear gloves, gown, and the N-95 mask.

***PATIENT TRANSPORT*** – Limit the movement and transport of the patient from the room to essential purposes only. The patient will don a clean gown, will wear a surgical mask, will practice hand hygiene and will be covered by a clean sheet whether transported by stretcher or wheelchair. The transport person will don a mask, goggles, 2 gowns and 2 pair of gloves. The transport person will enter the patient's room to help with placement of the patient on a stretcher or in a wheelchair. Just prior to pushing the patient out of the room, the transporter will remove one pair of gloves and the outer gown and discard them in the room. The patient will be moved through the designated EID route to minimize contact with other persons.

***PATIENT-CARE EQUIPMENT*** – Dedicate the use of patient-care equipment when possible. If equipment must leave the patient's room, the healthcare worker will remove the equipment (removing PPE as previously instructed). The healthcare worker will don a second pair of gloves and disinfect all surfaces of the equipment with a hospital grade disinfectant. The second pair of gloves will be removed and hands washed with an antiseptic soap and water or an alcohol hand rub will be applied to the hands.

***OUTPATIENT CLINICS*** – No personal protective equipment is required for registration of patients. Gowns and gloves are required for invasive procedures. Hand hygiene (handwashing with soap and water or application of an alcohol handrub to hands) is required before and after contact with all patients.

All Barrier Precautions for Swine Flu

All Barrier Precautions for Swine Influenza is a combination of Standard Precautions, Droplet Precautions, limited Airborne Precautions and Contact Precautions. All Barrier Precautions for Swine Influenza will be used **only** for patients known or suspected to have Swine Influenza.

All Barrier Precautions for Swine Influenza include:

***PRIVATE ROOM -*** necessary for all patients with Swine Influenza

***RESPIRATORY PROTECTION*** - Respiratory protection will be provided by either an N-95 mask or a surgical mask and will vary depending on whether or not the wearer has been vaccinated for ≥ 14 days or has been vaccinated for <14 days or is unvaccinated, the type of exposure, whether or not the wearer is pregnant and whether or not the wearer has an underlying health condition that would place them at greater risk for a severe case of Swine Influenza.

- Healthcare Workers (HCWs) who are unvaccinated or have been vaccinated for <14 days
  - Situations in which N-95 masks will be worn
    - HCWs who work in Intensive Care Units
    - HCWs with one of the following underlying medical conditions
      - Age 65 years or older
      - Chronic pulmonary (including asthma) cardiovascular (except isolated hypertension), renal, hepatic, hematological (including sickle cell disease) or metabolic disorders (including diabetes mellitus)
      - Seizures
      - Immunosuppression, including that caused by medications or by HIV
    - <u>While pregnant women are included in the list of underlying medical conditions, they may choose not to wear an N-95 mask due to oxygen desaturation that occurs while wearing these masks. Pregnant HCWs should wear a surgical mask when within 6 feet of a patient with documented or suspected Swine Influenza.</u>
    - All HCWs, who are present in a room where a procedure is being performed that causes extensive aerosolization of

respiratory secretions from a patient with documented or suspected Swine Influenza, **must wear a fit-tested N-95 mask.**

- All HCWs who do not meet the criteria for use of an N-95 mask should wear a surgical mask when within 6 feet of a patient with documented or suspected Swine Influenza.
- If the supply of N-95 masks is exhausted, all HCWs should wear surgical masks.

☐ Healthcare workers who have been vaccinated for ≥ 14 days

- HCWs should wear a surgical mask when within 6 feet of a patient with documented or suspected Swine Influenza.
- HCWs present in a room where a procedure is being done that produces extensive aerosolization **must wear a fit-tested N-95 mask.**

***PROTECTIVE EYEWEAR*** - Wear protective eyewear when entering the room (goggles)

***GLOVES*** - Wear gloves (clean, nonsterile gloves are adequate) when entering the room

***GOWNS*** - Wear a gown when entering the room

***HANDS*** - Will be washed with an antimicrobial soap or an alcohol hand rub applied before entering and after leaving the room.

***DONNING PPE ORDER***

☐ Don gown
☐ Don mask
☐ Don goggles
☐ Don gloves
☐ Make sure gown is secured behind the neck and with the tie behind the back
☐ Pull gloves over gown sleeve cuffs

***ORDER OF REMOVAL OF PPE:***

- Remove gloves
- Remove protective eyewear
- Remove gown
- Exit room and WASH HANDS or APPLY AN ALCOHOL HAND RUB, then remove the mask and WASH HANDS OR APPLY AN ALCOHOL HAND RUB.
- See http://www.utmb.edu/hce/ or Healthcare Epidemiology under Clinical on the UTMB home page.

***DOOR -*** Keep the room door closed and the patient in the room. Place an All Barrier Precautions sign on the patient's door.

***CHART*** – Place an All Barrier Precautions sign on the front of the patient's chart.

***PATIENT TRANSPORT*** – Limit the movement and transport of the patient from the room to essential purposes only. The patient will don a clean gown, will wear a surgical mask, will practice hand hygiene and will be covered by a clean sheet whether transported by stretcher or wheelchair.

***PATIENT-CARE EQUIPMENT*** – Dedicate the use of patient-care equipment when possible. If equipment must leave the patient's room, the healthcare worker will remove the equipment (removing PPE as previously instructed). The healthcare worker will don a second pair of gloves and disinfect all surfaces of the equipment with a hospital grade disinfectant. The second pair of gloves will be removed and hands washed with an antiseptic soap and water or an alcohol hand rub will be applied to the hands.

Droplet Precautions

Droplet Precautions will be used for patients known or suspected to be infected with microorganisms transmitted by droplets (large-particle droplets [larger than 10µm in size]) that can be generated by the patient during coughing, sneezing, talking, or during the performance of cough-inducing procedures).

Droplet Precautions include:

***PRIVATE ROOM -*** necessary for all patients in this category.

***WHEN PRIVATE ROOM IS NOT AVAILABLE:***

- Place the patient in a room with a patient who has an infection with the same microorganism, (same species) unless otherwise recommended, but with no other infection (cohorting).
- When cohorting is not achievable, maintain spatial separation of ≥3 feet between the infected patient and other patients and visitors. (Special air handling and ventilation are not necessary).

***RESPIRATORY PROTECTION -*** Don a surgical mask prior to entering the patient's room.

***DOOR -*** May remain open. Place Droplet Precautions sign on the patient's door.

***CHART –*** Place a Droplet Precautions sign on the front of the patient's chart.

***HANDS -*** Will be washed with an antimicrobial soap or an alcohol hand rub applied before entering and after leaving the room.

***PATIENT TRANSPORT -*** Limit the movement and transport of the patient from the room to essential purposes only. If transport is necessary, place a surgical mask on the patient prior to transport. A mask is not necessary for the transporter.

Contact Precautions

Contact Precautions will be used 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.

***PRIVATE ROOM -*** necessary for all patients in this category.

***WHEN PRIVATE ROOM IS NOT AVAILABLE:***

- Place the patient in a room with a patient who has an infection or is colonized with the same microorganism*, (same species) but with no other infection (cohorting).
- If cohorting is not achievable, consultation with the Department of Healthcare Epidemiology is necessary before patient placement.

***GLOVES -*** Wear gloves (clean, nonsterile gloves are adequate) when entering the room.

- 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 apply an alcohol hand rub.

***GOWNS –***

Wear a gown when entering the room

- Remove the gown before leaving the patient's environment.
- After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces.

***HANDS -*** Will be washed with an antimicrobial soap or an alcohol hand rub applied before entering and after leaving the room.

***CHART –*** Place a Contact Precautions sign on the front of the patient's door.

***DOOR -*** Place a Contact Precautions sign on the patient's door.

***PATIENT TRANSPORT -*** Limit the movement and transport of the patient from the room to essential purposes only. If the patient is transported, ensure that precautions are maintained to minimize the risk of transmission of microorganisms to other patients and contamination of environmental surfaces or equipment. Patients on Contact Precautions must be transported on a stretcher or wheelchair covered with a sheet or other physical barrier. It is not necessary for the patient or the transporter to wear gown and/or gloves during transport. The transporter should wear a gown and gloves to assist the patient in and out of the wheelchair/stretcher. Hands must be washed or an alcohol hand rub applied after gloves are removed. Gowns and gloves are available on the nursing unit.

***PATIENT-CARE EQUIPMENT -*** When possible, dedicate the use of noncritical 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.

Modified Contact Precautions

Modified Contact Precautions will be used for specified patients known or suspected to be infected or colonized with vancomycin-resistant enterococci (VRE) which can be transmitted by direct contact with the patient or by indirect contact with environmental surfaces or patient care items in the patient's environment.

***PRIVATE ROOM -*** necessary for all patients in this category.

***WHEN PRIVATE ROOM IS NOT AVAILABLE:***

- Place the patient in a room with a patient who has an active infection or is colonized with VRE.
- If cohorting is not achievable, consultation with the Department of Healthcare Epidemiology is necessary before patient placement.

***GLOVES -*** Wear gloves (clean, nonsterile gloves are adequate) when entering the room.

- 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 apply an alcohol hand rub.

***GOWNS -*** Wear a gown when entering the room.

- Remove the gown before leaving the patient's environment.
- After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces.

***HANDS -*** Will be washed with an antimicrobial soap or an alcohol hand rub applied before entering and after leaving the room.

***CHART –*** Place Modified Contact Precautions sign on the front of the patient's chart.

***DOOR –*** Place a Modified Contact Precautions sign on the door to the patient's room. The door may be left open.

***PATIENT TRANSPORT –*** Limit the movement and transport of the patient from the room to essential purposes only. If the patient is transported, ensure that precautions are maintained to minimize the risk of transmission of microorganisms to other patients and contamination of environmental surfaces or equipment. Patients on Modified Contact Precautions must be transported on a stretcher or wheelchair covered with a sheet or other physical barrier. It is not necessary for the patient or the transporter to wear gown and/or gloves during transport. The transporter should wear a gown and gloves to assist the patient in and out of the wheelchair/stretcher. Hands must be washed or an alcohol hand rub applied after gloves are removed.

***PATIENT-CARE EQUIPMENT -*** When possible, dedicate the use of noncritical 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.

Extended Contact Precautions

Extended Contact Precautions will be used for specified patients known or suspected of being colonized or infected with *Clostridium difficile*. This microorganism may be transmitted to patients by the contaminated hands or clothing of healthcare workers or by contact with contaminated inanimate or environmental surfaces.

***PRIVATE ROOM*** – necessary for all patients in this category.

**WHEN PRIVATE ROOM IS NOT AVAILABLE:**

- Consultation with the Department of Healthcare Epidemiology will be necessary before patient placement.

***GLOVES*** – Wear gloves (clean, nonsterile gloves are adequate) when entering the room.

- Change gloves after having contact with infective material that may contain high concentrations of microorganisms (fecal material).
- Remove gloves before leaving the patients environment and wash hands immediately with an antimicrobial soap and water. **DO NOT use alcohol hand rub for this type of isolation.** Alcohol will not kill bacterial spores.

***GOWNS*** – Wear a gown when entering the room.

- Remove the gown before leaving the patient's environment.
- After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces.

***CHART*** – Place an Extended Contact Precautions sign on the front of the patient's chart.

***DOOR –*** Place an Extended Contact Precautions sign on the patient's door.

***FOOD TRAYS*** – Patients will be served meals on regular food trays. **NOTE: If the B1/NAP1 mutant strain of *Clostridium difficile* begins to infect patients in our hospital, food will be served on disposable trays.**

Extended Contact Precautions *continued*

***PATIENT TRANSPORT*** – Limit the movement and transport of the patient from the room to essential purposes only. If the patient is transported, ensure that precautions are maintained to minimize the risk of transmission of microorganisms to other patients and contamination of environmental surfaces or equipment. Patients on Extended Contact Precautions must be transported on a stretcher or wheelchair covered with a sheet or other physical barrier. It is not necessary for the patient or the transporter to wear gown and/or gloves during transport. The transporter should wear a gown and gloves to assist the patient in and out of the wheelchair/stretcher. Hands must be washed with an antimicrobial soap after gloves are removed. **Do not use an alcohol hand rub. Alcohol will not kill spores.**

***PATIENT CARE EQUIPMENT*** – When possible, dedicate the use of non critical patient-care equipment to a single patient to avoid sharing between patients. If use of common equipment or items is unavoidable, then clean and disinfect them before use on another patient.

***OUTPATIENT CLINICS -*** No personal protective equipment is required for registration of patients. Gowns and gloves are required for invasive procedures. Hand hygiene (handwashing with soap and water or application of an alcohol hand rub) is required before and after contact with all patients.

## APPENDIX A

**Precautions**

**A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.**

| Infection/Condition | Type* | Duration† |
| --- | --- | --- |
| Abscess | | |
| Draining, major[1] | C | DI |
| Draining, minor or limited[2] | S | |
| Acquired immunodeficiency syndrome[3] | S | |
| Actinomycosis | S | |
| Adenovirus infection, in infants and young children | D, C | DI |
| Amebiasis | S | |
| Anthrax | | |
| Cutaneous | S | |
| Pulmonary | S | |
| Environmental: aerosolizable spore containing powder or other substance | | DE |
| Antibiotic-associated colitis (see *Clostridium difficile*) | | |
| Arthropodborne viral encephalitides (eastern, western, Venezuelan equine encephalomyelitis; St Louis, California encephalitis, West Nile Virus) | S | |
| Arthropodborne viral fevers (dengue, yellow fever, Colorado tick fever) | S | |
| Ascariasis | S | |
| Aspergillosis | S | |
| Babesiosis | S | |
| Blastomycosis, North American, cutaneous or pulmonary | S | |
| Botulism | S | |
| Bronchiolitis (see respiratory infections in infants and young children) | C | DI |
| Brucellosis (undulant, Malta, Mediterranean fever) | S | |
| *Campylobacter* gastroenteritis (see gastroenteritis) | | |
| Candidiasis, all forms including mucocutaneous | S | |
| Cat-scratch fever (benign inoculation lymphoreticulosis) | S | |
| Cellulitis, uncontrolled drainage | C | DI |
| Chancroid (soft chancre) | S | |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Chickenpox (see varicella) | A,C | F[4] |
| *Chlamydia trachomatis* | | |
| Conjunctivitis | S | |
| Genital | S | |
| Pneumonia (infants ≤ 3 mos of age) | S | |
| Chlamydia pneumoniae | S | |
| Cholera (see gastroenteritis) | | |
| Closed-cavity infection | | |
| Draining, limited or minor | S | |
| Not draining | S | |
| *Clostridium* | | |
| *C. botulinum* | S | |
| *C. difficile* | ECP | DI |
| *C. perfringens* | | |
| Food poisoning | S | |
| Gas gangrene | S | |
| Coccidioidomycosis (valley fever) | | |
| Draining lesions | S | |
| Pneumonia | S | |
| Colorado tick fever | S | |
| Congenital rubella | C | Until 1yr of age[5] |
| Conjunctivitis | | |
| Acute bacterial | S | |
| *Chlamydia* | S | |
| Gonococcal | S | |
| Acute viral (acute hemorrhagic) | C | DI |
| Coxsackievirus disease (see enteroviral infection) | | |
| Creutzfeldt-Jakob disease | S[6] | |
| Croup (see respiratory infections in infants and young children) | | |
| Crimean – Congo Fever (see Viral Hemorrhagic Fever) | S | |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Cryptococcosis | S | |
| Cryptosporidiosis (see gastroenteritis) | | |
| Cysticercosis | S | |
| Cytomegalovirus infection, neonatal or immunosuppressed | S | |
| Decubitus ulcer, (see Pressure ulcer) | | |
| Dengue | S | |
| Diarrhea, acute - infective etiology suspected (see gastroenteritis) | | |
| Diphtheria | | |
| Cutaneous | C | CN[7] |
| Pharyngeal | D | CN[7] |
| Echinococcosis (hydatidosis) | S | |
| Echovirus (see enteroviral infection) | | |
| Encephalitis or encepalomyelitis (see specific etiologic agents) | | |
| Endometritis | S | |
| Enterobiasis (pinworm disease, oxyuriasis) | S | |
| *Enterococcus* species (see multidrug-resistant organisms if epidemiologically significant or vancomycin resistant) | | |
| Enterocolitis, *Clostridium difficile* | ECP | DI |
| Enteroviral infections | | |
| Adults | S | |
| Infants and young children | C | DI |
| Epiglottitis, due to *Haemophilus influenzae,* type b | D | U[24 hrs] |
| Epstein-Barr virus infection, including infectious mononucleosis | S | |
| Erythema infectiosum (also see Parvovirus B19) | | |
| *Escherichia coli* gastroenteritis (see gastroenteritis) | | |
| Food poisoning | | |
| Botulism | S | |
| *Clostridium perfringens* or *welchii* | S | |
| Staphylococcal | S | |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Furunculosis - staphylococcal | S | |
| Infants and young children | C | DI |
| Gangrene (gas gangrene) | S | |
| Gastroenteritis | | |
| Adenovirus | S | |
| *Campylobacter* species | S[8] | |
| Cholera | S[8] | |
| *Clostridium difficile* | ECP | DI |
| *Cryptosporidium* species | S[8] | |
| *Escherichia coli* | | |
| Enterohemorrhagic 0157:H7 | S | |
| Diapered or incontinent | C | DI |
| Other species | S | |
| *Giardia lamblia* | S | |
| Rotavirus | C | DI |
| Diapered or incontinent | C | DI |
| *Salmonella* species (including *S. typhi*) | S | |
| *Shigella* species | S | |
| Diapered or incontinent | C | DI |
| *Vibrio parahaemolyticus* | S[8] | |
| Viral (if not covered elsewhere) | S[8] | |
| *Yersinia enterocolitica* | S[8] | |
| German measles (rubella) | D | Until 7 days after onset of rash |
| Giardiasis (see gastroenteritis) | | |
| Gonococcal ophthalmia neonatorum (gonorrheal opthalmia, acute conjunctivitis of newborn) | S | |
| Gonorrhea | S | |
| Granuloma inguinale (donovanosis, granuloma venereum) | S | |
| Guillain-Barré syndrome | S | |
| Hand, foot, and mouth disease (see enteroviral infection) | | |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| *Hantavirus* pulmonary syndrome | S | |
| *Helicobacter pylori* | S | |
| Hemorrhagic fevers (see viral hemorrhagic fevers) | | |
| Hepatitis, viral | | |
| Type A | | |
| Diapered or incontinent patients | C[9] | |
| Type B - HBsAg positive | S | |
| Type C and other unspecified non-A, non-B | S | |
| Type E | S | |
| Type G | S | |
| Herpangina (see enteroviral infection) | | |
| Herpes simplex (*Herpesvirus hominis*) | | |
| Encephalitis | S | |
| Neonatal | C[10] | Until lesions dry and crusted |
| Mucocutaneous, disseminated or primary, severe | C | Until lesions dry and crusted |
| Mucocutaneous, recurrent (skin, oral, genital) | S | |
| Herpes zoster (varicella-zoster) | | |
| Localized in immunocompromised patient, or disseminated | A,C[11] | DI |
| Localized in normal patient | S | DI |
| Histoplasmosis | S | |
| HIV (see human immunodeficiency virus) | S | |
| Hookworm disease (ancylostomiasis, uncinariasis) | S | |
| Human immunodeficiency virus (HIV) infection[3] | S | |
| Human metapneumovirus | C | DI |
| Impetigo | C | U[24 hrs] |
| Infectious mononucleosis | S | |
| Influenza, seasonal | D[12] | 5 days except DI in immunocompromised persons |
| Influenza, Swine | ABP | 7 days from onset of symptoms or until afebrile for 24 hours, whichever is |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| | | longer except DI in immunocompromised persons |
| Kawasaki syndrome | S | |
| Lassa fever (see Viral Hemorrhagic Fevers) | | |
| Legionnaires' disease | S | |
| Leprosy | S | |
| Leptospirosis | S | |
| Lice | | |
| Head (pediculosis) | C | U[4hrs] |
| Body | S | |
| Pubic | S | |
| Listeriosis | S | |
| Lyme disease | S | |
| Lymphocytic choriomeningitis | S | |
| Lymphogranuloma venereum | S | |
| Malaria | S | |
| Marburg virus disease (see Viral Hemorrhagic Fevers) | | |
| Measles (rubeola), all presentations | A | 4 days after onset of rash; DI in immune compromised patients |
| Melioidosis, all forms | S | |
| Meningitis | | |
| Aseptic (nonbacterial or viral meningitis [also see enteroviral infections]) | S | |
| Bacterial, gram-negative enteric, in neonates | S | |
| Fungal | S | |
| *Haemophilus influenzae*, known or suspected | D | U[24 hrs] |
| *Listeria monocytogenes* | S | |
| *Neisseria meningitidis* (meningococcal) known or suspected | D | U[24 hrs] |
| Pneumococcal | S | |
| Tuberculosis | S[13] | |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Other diagnosed bacterial | S | |
| Meningococcal pneumonia | D | U[24 hrs] |
| Meningococcemia (meningococcal sepsis) | D | U[24 hrs] |
| *Molluscum contagiosum* | S | |
| Monkeypox | A, C | A - until monkey pox confirmed and smallpox excluded;<br>C - until lesions crusted |
| Mucormycosis | S | |
| Multidrug-resistant organisms, infection or colonization[14] | | |
| Gastrointestinal | C | CN |
| Respiratory | C | CN |
| Pneumococcal | S | |
| Skin, wound, or burn | C | CN |
| Methicillin-resistant *Staphylococcus aureus* (MRSA) | C | DC[15] |
| Vancomycin-resistant enterococci (VRE) | MCP | DC[16] |
| Mumps (infectious parotitis) | D | For 9 days after onset of swelling |
| Mycobacteria, nontuberculosis (atypical) | | |
| Pulmonary | S | |
| Wound | S | |
| *Mycoplasma* pneumonia | D | DI |
| Necrotizing enterocolitis | S | |
| Nocardiosis, draining lesions or other presentations | S | |
| Norovirus gastroenteritis (see viral gastroenteritis) | | |
| Orf | S | |
| Parainfluenza virus infection, respiratory in infants and young children | C | DI |
| Parvovirus B19 | | |
| Erythema infectiosum (immunocompetent patients) | S | |
| Patients with transient aplastic crisis | D | Seven days after onset |
| Immunosuppressed patients | D | DH |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Pediculosis (lice) | C | U[24 hrs] |
| Pertussis (whooping cough) | D | For 5 days after patient placed on effective therapy |
| Pinworm infection | S | |
| Plague | | |
| Bubonic | S | |
| Pneumonic | D | U[48 hrs] |
| Pleurodynia (see enteroviral infection) | | |
| Pneumonia | | |
| Adenovirus | D,C | DI |
| Bacterial not listed elsewhere (including gram-negative bacterial) | S | |
| *Burkholderia cepacia* in cystic fibrosis (CF) patients, including respiratory tract colonization | C[17] | |
| *Chlamydia* | S | |
| Fungal | S | |
| *Haemophilus influenzae*, type b | | |
| Adults | S | |
| Infants and children (any age) | D | U[24 hrs] |
| *Legionella* | S | |
| Meningococcal | D | U[24 hrs] |
| Multidrug-resistant bacterial (see multidrug-resistant organisms) | | |
| *Mycoplasma* (primary atypical pneumonia) | D | DI |
| Pneumococcal | S | |
| Multidrug-resistant (see multidrug-resistant organisms) | | |
| *Pneumocystis jiroveci (Pneumocystis carinii)* | S[18] | |
| *Pseudomonas cepacia* (see *Burkholderia cepacia*) | | |
| *Staphylococcus aureus* | S | |
| *Streptococcus*, Group A | | |
| Adults | D | U[24hrs] |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Infants and young children | D | U[24 hrs] |
| Viral | | |
| Adults | S | |
| Infants and young children (see respiratory infectious disease, acute or specific viral agent) | | |
| Poliomyelitis | C | DI |
| Pressure ulcer (decubitus ulcer, pressure sore) infected | | |
| Major | C | DI |
| Minor or limited | S | If dressing covers and contains drainage |
| Psittacosis (ornithosis) | S | |
| Q fever | S | |
| Rabies | S | |
| Rat-bite fever (*Streptobacillus moniliformis* disease, *Spirillum minus* disease) | S | |
| Relapsing fever | S | |
| Resistant bacterial infection or colonization (see multidrug-resistant organisms) | | |
| Respiratory infectious disease, acute (if not covered elsewhere) | | |
| Adults | S | |
| Infants and young children[3] | C | DI |
| Respiratory syncytial virus infection, in infants and young children, and immunocompromised adults | C | DI |
| Reye's syndrome | S | |
| Rheumatic fever | S | |
| Rhinovirus | D | DI |
| Rickettsial fevers, tickborne (Rocky Mountain spotted fever, tickborne typhus fever) | S | |
| Rickettsialpox (vesicular rickettsiosis) | S | |
| Ringworm (dermatophytosis, dermatomycosis, tinea) | S | |
| Ritter's disease (staphylococcal scalded skin syndrome) | C | DI |
| Rocky Mountain spotted fever | S | |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Roseola infantum (exanthem subitum) | S | |
| Rotavirus infection (see gastroenteritis) | | |
| Rubella (German measles; also see congenital rubella) | D | For 7 days after onset of rash |
| Salmonellosis (see gastroenteritis) | | |
| Scabies | C | U[24 hrs] |
| Scalded skin syndrome, staphylococcal (Ritter's disease) | C | DI |
| Schistosomiasis (bilharziasis) | S | |
| Severe Acute Respiratory Syndrome (SARS) | ABP | For 10 days after resolution of fever [19] |
| Shigellosis (see gastroenteritis) | | |
| Smallpox (variola; see vaccinia for management of vaccinated persons) | ABP | DI |
| Sporotrichosis | S | |
| *Spirillum minus* disease (rat-bite fever) | S | |
| Staphylococcal disease (*S. aureus*) | | |
| Skin, wound, or burn | | |
| Major[1] | C | DI |
| Minor or limited[2] | S | |
| Enterocolitis | S[8] | |
| Multidrug-resistant (see multidrug-resistant organisms) | | |
| Pneumonia | S | |
| Scalded skin syndrome | C | DI |
| Toxic shock syndrome | S | |
| *Streptobacillus moniliformis* disease (rat-bite fever) | S | |
| Streptococcal disease (group A streptococcus) | | |
| Skin, wound, or burn | | |
| Major[1] | C, D | U[24 hrs] |
| Minor or limited[2] | S | |
| Endometritis (puerperal sepsis) | S | |
| Pharyngitis in infants and young children | D | U[24 hrs] |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Pneumonia | D | U[24 hrs] |
| Scarlet fever in infants and young children | D | U[24 hrs] |
| Serious invasive disease | D | U[24 hrs] |
| Streptococcal disease (group B streptococcus), neonatal | S | |
| Streptococcal disease (not group A or B) unless covered elsewhere | S | |
| Multidrug-resistant (see multidrug-resistant organisms) | | |
| Strongyloidiasis | S | |
| Swine Influenza (see Influenza, swine) | | |
| Syphilis | | |
| Skin and mucous membrane, including congenital, primary, secondary | S | |
| Latent (tertiary) and seropositivity without lesions | S | |
| Tapeworm disease | | |
| *Hymenolepis nana* | S | |
| *Taenia solium* (pork) | S | |
| Other | S | |
| Tetanus | S | |
| Tinea (fungus infection dermatophytosis, dermatomycosis, ringworm) | S | |
| Toxoplasmosis | S | |
| Toxic shock syndrome (staphylococcal disease) | S | |
| Trachoma, acute | S | |
| Trench mouth (Vincent's angina) | S | |
| Trichinosis | S | |
| Trichomoniasis | S | |
| Trichuriasis (whipworm disease) | S | |
| Tuberculosis | | |
| Extrapulmonary, draining lesion (including scrofula) | A, C | |
| Extrapulmonary, no draining lesion meningitis[13] | S | |
| Pulmonary, or laryngeal disease, confirmed or suspected | A[20] | |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
|---|---|---|
| Skin-test positive with no evidence of current pulmonary disease | S | |
| Tularemia | | |
| Draining lesion | S | |
| Pulmonary | S | |
| Typhoid (*Salmonella typhi*) fever (see gastroenteritis) | | |
| Typhus, endemic and epidemic | S | |
| Urinary tract infection (including pyelonephritis), with or without urinary catheter | S | |
| Vaccinia (vaccination site, adverse events following vaccination) | | |
| Vaccinated site (including autoinoculated areas) | S | Until lesions dry and crusted |
| Eczema vaccination | C | |
| Fetal vaccinia | C | |
| Generalized vaccinia | C | |
| Progressive vaccinia | C | |
| Postvaccinia encephalitis | S | |
| Blepharitis or conjunctivitis | S/C | |
| Iritis or keratitis | S | |
| Vaccinia-associated erythema | S | |
| multiforme (Stevens Johnson Syndrome) | | |
| Secondary bacterial infection (e.g., S. aureus, Group A Beta hemolytic streptococcus | S/C | |
| Varicella (chickenpox) | A,C[4] | |
| *Vibrio* parahaemolyticus (see gastroenteritis) | | |
| Vincent's angina (trench mouth) | S | |
| Viral hemorrhagic fevers (Lassa, Ebola, Marburg, Crimean-Congo fever viruses) | S, D, C | DI |
| Viral diseases | | |
| Respiratory (if not covered elsewhere) | | |
| Adults | S | |
| Infants / young children (see respiratory infectious disease, acute) | | |
| Whooping cough (see pertussis) | | |

| Infection/Condition | Precautions<br>A-Airborne; ABP-All Barrier Precautions; C-Contact; D-Droplet; ECP-Extended Contact Precautions; MCP-Modified Contact Precautions; S-Standard Precautions; when A,C, & D are specified, also use S.<br>Type* | Duration† |
| --- | --- | --- |
| Wound infections | | |
| Major[1] | C | DI |
| Minor or limited[2] | S | |
| *Yersinia enterocolitica* gastroenteritis (see gastroenteritis) | | |
| Zoster (varicella-zoster) | | |
| Localized in immunocompromised patient, disseminated | A,C | DI[11] |
| Localized in normal patient | S[11] | |
| Zygomycosis (phycomycosis, mucormycosis) | S | |

## Type and Duration of Precautions Needed for Selected Infections and Conditions

Abbreviations: type of precautions: A, Airborne; ABP, All Barrier Precautions; C, Contact; D, Droplet; ECP, Extended Contact Precautions; MCP, Modified Contact Precautions; S, Standard Precautions; when A,C, and D are specified, also use S.

†Duration of precautions: CN, until off antibiotics and culture-negative; DC, duration of colonization; DH, duration of hospitalization; DI, duration of illness (with wound lesions, DI means until they stop draining); ED, until environment completely decontaminated U, until time specified in hours (hrs) after initiation of effective therapy.

[1] No dressing or dressing does not contain drainage adequately.

[2]Dressing covers and contains drainage adequately.

[3]Also see syndromes or conditions listed in Table 2.

[4]Maintain precautions until all lesions are crusted. The average incubation period for varicella is 10 to 21 days. After exposure, use varicella zoster immune globulin (VZIG) when appropriate, and discharge susceptible patients if possible. Place exposed susceptible patients on Airborne Precautions beginning 10 days after the first exposure and continuing until 21 days after last exposure (up to 28 days if VZIG has been given). Susceptible persons should not enter the room of patients on precautions if other immune caregivers are available.

[5]Place infant on precautions during any admission until 1 year of age, unless nasopharyngeal and urine cultures are negative for virus after age 3 months.

[6]Additional special precautions are necessary for handling and decontamination of blood, body fluids and tissues, and contaminated items from patients with confirmed or suspected disease. See latest College of American Pathologists (Northfield, Illinois) guidelines or other references.

[7]Until two cultures taken at least 24 hours apart are negative.

[8]Use Contact Precautions for diapered or incontinent children <6 years of age for duration of illness.

[9]Maintain precautions in infants and children < 3 years of age for duration of hospitalization; in children 3 to 14 years of age, until 2 weeks after onset of symptoms; and in others, until 1 week after onset of symptoms.

[10]For infants delivered vaginally or by C-section and if mother has active infection and membranes have been ruptured for more than 4 to 6 hours.

[11]Persons susceptible to varicella are also at risk for developing varicella when exposed to patients with herpes zoster lesions; therefore, susceptibles should not enter the room if other immune caregivers are available.

[12]The “Guideline for Prevention of Nosocomial Pneumonia” recommends surveillance, vaccination, antiviral agents, and use of private rooms with negative air pressure as much as feasible for patients for whom influenza is suspected or diagnosed. Many hospitals encounter logistic difficulties and physical plant limitations when admitting multiple patients with suspected influenza during community outbreaks. If sufficient private rooms are unavailable, consider cohorting patients or, at the very least, avoid room sharing with high-risk patients. See “Guideline for Prevention of Nosocomial Pneumonia” for additional prevention and control strategies.

[13]Patient should be examined for evidence of current (active) pulmonary tuberculosis. If evidence exists, additional precautions are necessary (see tuberculosis).

[14]Resistant bacteria judged by the Department of Healthcare Epidemiology, based on current state, regional, or national recommendations, to be of special clinical and epidemiological significance.

[15]Patients may be removed from Contact Precautions and have the Contact Precautions flag removed from the hospital computer system when three consecutive cultures from nares and any other previously colonized/infected body sites taken ≥ one week apart are negative.

[16]Patients may be removed from Modified Contact Precautions and have the Modified Contact Precautions flag removed from the hospital computer system when three consecutive cultures from the perirectal area and any other previously colonized/infected body sites taken ≥ one week apart are negative.

[17]Avoid cohorting or placement in the same room with a CF patient who is not infected or colonized with *B cepacia*. Persons with CF who visit or provide care and are not infected or colonized with *B cepacia* may elect to wear a mask when within 3 ft of a colonized or infected patient.

[18]Avoid placement in the same room with an immunocompromised patient.

[19]Patients will be isolated until 10 days after resolution of fever given that respiratory symptoms are absent or resolving. Prior to discontinuing isolation, the Department of Healthcare Epidemiology should be notified to assure that we concur with the decision to discontinue ABP.

[20]Discontinue precautions *only* when TB patient is on effective therapy, is improving clinically, and has three consecutive negative sputum smears collected on different days, or TB is ruled out.

# TABLE 1

## SYNOPSIS OF TYPES OF PRECAUTIONS AND PATIENTS REQUIRING THE PRECAUTIONS*

**Standard Precautions**

Use Standard Precautions for the care of all patients (see Table 2)

**Airborne Precautions**

In addition to Standard Precautions, use Airborne Precautions for patients known or suspected to have serious illnesses transmitted by airborne droplet nuclei. Examples of such illnesses include:

- Measles
- Varicella (including localized zoster in an immunocompromised patient and disseminated zoster)†
- Tuberculosis

**All Barrier Precautions**

In addition to Standard Precautions, use All Barrier Precautions for patients who may have an Emerging Infectious Disease (EID) or possible EID at their first point of contact with the hospital or clinics.

**Droplet Precautions**

In addition to Standard Precautions, use Droplet Precautions for patients known or suspected to have serious illnesses transmitted by large droplets. Examples of such illnesses include:

Invasive *Haemophilus influenzae* type b disease, including meningitis, pneumonia, epiglottitis, and sepsis

Invasive *Neisseria meningitidis* disease, including meningitis, pneumonia, and sepsis

Other serious bacterial respiratory infections spread by droplet transmission, including:

- Diphtheria (pharyngeal)
- Mycoplasma pneumonia
- Pertussis
- Pneumonic plague
- Streptococcal pharyngitis, pneumonia, or scarlet fever in infants and young children

Serious viral infections spread by droplet transmission, including:

- Adenovirus†
- Influenza
- Mumps
- Parvovirus B19
- Rubella

**Contact Precautions**

In addition to Standard Precautions, use Contact Precautions for patients known or suspected to have serious illnesses easily transmitted by direct patient contact or by contact with 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 Department of Healthcare Epidemiology, based on current state, regional, or national recommendations, to be of special clinical and epidemiological 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

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
Varicella
Zoster (disseminated or in the immunocompromised host)†

Viral/hemorrhagic conjunctivitis
Viral hemorrhagic infections (Ebola, Lassa, or Marburg)*

**Extended Contact Precautions (ECP)**

In addition to Standard Precautions use Extended Contact Precautions for patients known or suspected to have *Clostridium difficile* infection. For patients on ECP, hands must be washed with an antimicrobial soap and water. Alcohol cannot be used for hand hygiene for patients on this type of isolation, because alcohol will not kill spores.

**Modified Contact Precautions (MCP)**

In addition to Standard Precautions use Modified Contact Precautions for patients colonized or infected with vancomycin-resistant enterococci (VRE). MCP requires that a gown and gloves be donned prior to entering the room of a patient colonized or infected with VRE.

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*See Appendix A for a complete listing of infections requiring precautions, including appropriate footnotes.

† Certain infections require more than one type of precaution.

# TABLE 2

## RECOMMENDATIONS FOR APPLICATION OF STANDARD PRECAUTIONS FOR THE CARE OF ALL PATIENTS IN ALL HEALTHCARE SETTINGS

| COMPONENT | RECOMMENDATIONS |
| --- | --- |
| Hand hygiene | After touching blood, body fluids, secretions, excretions, contaminated items; immediately after removing gloves; between patient contacts. |
| Personal protective equipment (PPE) | |
| Gloves | For touching blood, body fluids, secretions, excretions, contaminated items; for touching mucous membranes and nonintact skin. |
| Gown | During procedures and patient-care activities when contact of clothing/exposed skin with blood/body fluids, secretions, and excretions is anticipated. |
| Mask, eye protection (goggles), face shield* | During procedures and patient-care activities likely to generate splashes or sprays of blood, body fluids, secretions, especially suctioning, endotracheal intubation. |
| Soiled patient-care equipment | Handle in a manner that prevents transfer of microorganisms to others and to the environment; wear gloves if visibly contaminated; perform hand hygiene. |
| Environmental control | Develop procedures for routine care, cleaning, and disinfection of environmental surfaces, especially frequently touched surfaces in patient-care areas. |
| Textiles and laundry | Handle in a manner that prevents transfer of microorganisms to others and to the environment. |
| Needles and other sharps | Do not recap, bend, break, or hand manipulate used needles; if recapping is required, use a one-handed scoop technique only; use safety features when available; place used sharps in puncture-resistant container. |
| Patient resuscitation | Use mouthpiece, resuscitation bag, or other ventilation devices to prevent contact with mouth and oral secretions. |
| Patient placement | Prioritize for single-patient room if patient is at increased risk of transmission, is likely to contaminate the environment, does not maintain appropriate hygiene, or is at increased risk of acquiring infection or developing adverse outcome following infection. |
| Respiratory hygiene/cough etiquette (source containment of infectious respiratory secretions in symptomatic patients, beginning at initial point of encounter e.g., triage and reception areas in emergency departments and physician offices) | Instruct symptomatic persons to cover mouth/nose when sneezing/coughing; use tissues and dispose in no-touch receptacle; observe hand hygiene after soiling of hands with respiratory secretions; wear surgical mask if tolerated or maintain spatial separation, >3 feet if possible. |

*During aerosol-generating procedures on patients with suspected or proven infections transmitted by respiratory aerosols (e.g., SARS), wear a fit-tested N95 or higher respirator in addition to gloves, gown, and face/eye protection.

# TABLE 3

## CLINICAL SYNDROMES OR CONDITIONS WARRANTING ADDITIONAL EMPIRIC PRECAUTIONS TO PREVENT TRANSMISSION OF EPIDEMIOLOGICALLY IMPORTANT PATHOGENS PENDING CONFIRMATION OF DIAGNOSIS

| Clinical Syndrome or Condition[†] | Potential Pathogens[‡] | Empiric Precautions |
| --- | --- | --- |
| Diarrhea | | |
| Acute diarrhea with a likely infectious cause in an incontinent or diapered patient | Enteric pathogens[§] | Contact |
| Diarrhea in an adult with a history of recent antibiotic use | *Clostridium difficile* | Extended Contact |
| Meningitis | *Neisseria meningitidis* | Droplet |
| Rash or exanthems, generalized, etiology unknown | | |
| Petechial/ecchymotic with fever | *Neisseria meningitidis* | Droplet |
| Vesicular | Varicella | Airborne and Contact |
| Maculopapular with coryza and fever | Rubeola (measles) | Airborne |
| Respiratory infections | | |
| Cough/fever/upper lobe pulmonary infiltrate in an HIV-negative patient or a patient at low risk for HIV infection | *Mycobacterium tuberculosis* | Airborne |
| Cough/fever/pulmonary infiltrate in any lung location in an HIV-infected patient or a patient at high risk for HIV infection | *Mycobacterium tuberculosis* | Airborne |
| Paroxysmal or severe persistent cough during periods of pertussis activity | *Bordetella pertussis* | Droplet |
| Respiratory infections, particularly bronchiolitis and croup, in infants and young children | Respiratory syncytial or parainfluenza virus, adenovirus, influenza virus, Human metapneumovirus | Contact and Droplet |
| Risk of multidrug-resistant microorganisms | | |
| History of infection or colonization with multidrug-resistant organisms[‖] | Resistant bacteria | Contact |
| Skin, wound, or urinary tract infection in a patient with a recent hospital or nursing home stay in a facility where multidrug-resistant organisms are prevalent | Resistant bacteria | Contact |
| Skin or wound infection | | |
| Abscess or draining wound that cannot be covered | *Staphylococcus aureus,* Group A streptococcus | Contact |

[†] Patients with the syndromes or conditions listed in the column below may present with atypical signs or symptoms (e.g., pertussis in neonates and adults may not have paroxysmal or severe cough). The clinician's index of suspicion should be guided by the prevalence of specific conditions in the community, as well as clinical judgment.

‡ The organisms listed under the column "Potential Pathogens" are not intended to represent the complete, or even most likely, diagnoses, but rather possible etiologic agents that require additional precautions beyond Standard Precautions until they can be ruled out.

§ These pathogens include enterohemorrhagic *Escherichia coli* 0157:H7, *Shigella*, hepatitis A virus, norovirus, rotavirus and *C. difficile*.

‖ Resistant bacteria judged by the Department of Healthcare Epidemiology, based on current state, regional, or national recommendations, to be of special clinical or epidemiological significance.

*Reference*:

1. 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