

**FLOYD MEDICAL CENTER
POLICY AND PROCEDURE MANUAL
ENVIRONMENT OF CARE
Isolation Systems**



TITLE: Standard and Transmission Based Precautions	Policy No.: EC-06-001
Purpose: 1. To prevent the transmission of infectious agents. 2. To describe the standard of practice for the use of protective apparel for all contact with blood and body substances and the use of Airborne, Droplet and Contact Precautions.	Developed Date: 9/96 Review Date: Revised Date: 9/00, 11/02, 4/06, 2/09, 2/12, 5/12, 8/14, 8/17, 12/17, 8/18 Review Responsibility: Hospital Epidemiologist, Director of Infection Prevention, Infection Prevention Committee
Reference Standards: 1. The Joint Commission (TJC) Hospital Accreditation Standards: IC.02.01.01, 02.02.02, and 02.03.01 2. The Joint Commission National Patient Safety Goal 07.01.01, 07.01.03 3. Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007, CDC 4. Guideline for Hand Hygiene in Health Care Setting, MMWR, October 25, 2002/Vol.51. No. RR-16 5. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5417a1.htm?s_cid=rr5417a1_e#tab1 6. Air Change Validation, Floyd Medical Center 7. http://www.apic.org/For-Consumers/IP-Topics/Article?id=prevent-infection-what-you-need-to-know-about	

Policy:

The hospital uses a coordinated process of standard and transmission based precautions to prevent the spread of health-care acquired infections in patients and employees.

Responsibilities

- A. This policy applies to all employees of Floyd Medical Center and its affiliated facilities including Willowbrook at Floyd (Behavioral Health), Floyd Primary Care/Urgent Care, Heyman Hospice Care and to all medical staff, volunteers, contract workers and students.
- B. Supervisors, managers, and directors are required to enforce the provisions of this policy in their areas. Employees who do not follow the contents of this plan may be subject to disciplinary action.
- C. The Infection Prevention Department will be notified when a patient is placed in transmission based precautions. Leaving a voice mail message on the phone in the Infection Prevention office is an acceptable form of notification.

- D. The Infection Prevention Department is available to provide consultation regarding standard and transmission based precautions.
- E. Any patient known or suspected to have a disease or condition that warrants transmission based precautions will be placed in the appropriate transmission precautions upon admission. Physicians and/or nurses will promptly order the precautions category for newly diagnosed or suspected cases.
1. The nurse is responsible for ensuring that the precautions are initiated and maintained according to the specified protocol.
 2. The infection prevention staff or the patient's nurse may initiate transmission based precautions without the physician's order based upon a lab report, or patient's changing status (e.g., diarrhea) or based on a prior known admission infectious status. In those instances, the physician will be notified that the patient was placed on transmission based precautions, and a note for the rationale will be entered in the nurse's notes.

STANDARD Precautions apply to all patients regardless of their diagnosis or presumed infection status.

- A. Standard Precautions apply to:
- ◆ Blood
 - ◆ All body fluids, secretions/excretions, except sweat
 - ◆ Non-intact skin (skin that is cut, chapped, abraded, cracked, afflicted with weeping or exudative lesions, or is otherwise broken.)
 - ◆ Mucous membranes
- B. Standard Precautions requires the use of personal protective equipment (PPE) for all contact with blood and body substances. Employees will use judgment in order to anticipate the type of exposure that may occur, and utilize barrier precautions suitable to the task.
1. Gloves will be worn for contact with any body substance, secretion or excretion (except sweat), contact with mucous membranes or non-intact skin, or when handling contaminated equipment. **The use of gloves is intended to supplement, and not replace, hand washing or other existing control measures.**
 2. Gloves (intact- no fingers on gloves will be removed) will be worn when performing vascular access procedures such as starting an IV or drawing blood.
 3. Gloves will be worn in providing care to a patient or in managing equipment when the health care worker has cuts, scratches, or other breaks in the skin on his/her hands.
 4. Protective gowns will be worn while performing patient care tasks that might result in clothing becoming soiled with blood and body substances.
 5. Protective eyewear is worn to prevent blood and body substances from contaminating the mucous membranes of the eyes. Protective eyewear will be worn where blood and body substances may be expected to splash or splatter.

6. Face Shields and/or standard surgical or procedural masks are worn to prevent blood and body substances from contaminating the mucous membranes of the eyes, nose, and mouth during procedures which may cause splashing or splattering. If blood and body substances are expected to become aerosolized during a procedure, a mask will also be worn.
7. **Surgical masks do NOT provide adequate protections for those diseases spread by the airborne route (i.e. Mycobacterium tuberculosis).**
8. PPE will be located in each department.

Equipment

Any equipment that is taken into a patient's room (regardless of transmission based precautions) will be cleaned after each use with an antiseptic wipe approved by the Infection Prevention Department. This includes, Dinamapps, blood glucose monitors, pulse oximeters, EKG machine leads, and diagnostic portable machines such as otoscopes, ophthalmoscopes, ultrasound, radiology equipment, and physical therapy/occupational equipment. A disposable thermometer and bleach wipes will be ordered by the unit from Central Service to clean equipment if patient has been diagnosed with *Clostridium difficile*. Ice pitchers will not be taken from any patient room to the ice machine but a disposable cup or plastic bag will be utilized to fill ice pitchers.

Hand Hygiene

Hand hygiene is the single most effective means of preventing the spread of hospital associated infections among hospital patients and personnel. Hand hygiene not only incorporates the traditional method of hand washing (i.e. the removal of microorganisms with soap and water), but also hand antisepsis which is the removal of or destruction of microorganisms using soap or an alcohol-based hand rub.

Trash

Trash from routine patient care activities will be placed in a regular waste container. However, if waste is grossly bloody or contains other potentially infectious materials (e.g., sterile space fluids, semen, and vaginal secretions), it must be discarded in a biohazard container. See EC-05-007 Regulated Medical Waste.

Lab specimens

1. Always wear gloves and other indicated barrier protection when collecting and handling laboratory specimens.
2. Place each laboratory specimen in an appropriate leak-proof primary non-glass container (e.g., vacutainer tube, specimen cup, etc.). Care will be taken when collecting and handling specimens to avoid contamination of the outside of the container.
3. Secure lids tightly to prevent leakage.
4. Place the specimen(s) into a plastic zip-lock type bag ensuring that the outside of the bag remains clean. Once this has been accomplished, gloves should be discarded and appropriate hand hygiene performed.

5. Seal the bag before transporting to the laboratory by the pneumatic tube system or by hand.
6. Hand washing must be performed following any direct contact with blood or body substances in the handling or transporting of laboratory specimens.
7. Whole blood may be transported to the area of use in a clear plastic bag.
8. If a lab tray is brought into the patient's room, the tray must be wiped with an antiseptic wipe approved by the Infection Prevention department after exiting the patient room. An alternative would be to place the tray on a clean barrier instead of on a contaminated environmental surface.

Linen

Soiled linen can be a source of microbial contamination, which may infrequently cause infection in hospital patients and personnel. All soiled linen will be handled in the same manner regardless of the patient's specific diagnosis. Although the risk of disease transmission from soiled linen is minimal, the following infection prevention guidelines apply to the management of linen and laundry.

1. Hand washing will be performed after having contact with soiled linen
2. Protective barrier apparel will be used as follows:
 - ◆ Gloves will be worn for actual or potential contact with soiled linen contaminated with blood or body substances.
 - ◆ Gowns will be worn for the management of soiled linen if contamination of the clothing is likely to occur.
 - ◆ Masks will be worn if there is a potential for exposure to aerosolized blood or body substances. This may occur if soiled linen is extensively agitated.
3. **All soiled linen is considered potentially infectious.**
4. Handle soiled linen as little as possible and with a minimum of agitation to prevent gross microbial contamination of the air and of persons handling the linen.
5. Linen will not be sorted or rinsed in patient care areas.
6. Place all linen in the designated leak-proof, blue laundry bags. It is not necessary to put any linen in a red bag.
7. Caution must be exercised to help prevent laundry bags from being OVERFILLED. Do not drag the linen bag on the floor while transporting to soiled utility room.
8. **Filled linen bags will be closed securely.**
9. Linen should not be stockpiled in rooms..
10. Double bagging will be utilized only when the original linen bag is torn, punctured, or visibly contaminated on the outside; or if the linen contains such a large amount of fluid that the original bag may leak.

Patient Transport: Procedures for transporting patients:

1. Perform Hand Hygiene
2. Don personal protective equipment (PPE) if necessary
3. Correctly identify the patient to prevent wrong-patient procedures.
4. Acknowledge the patient by name, introduce self, give an estimate of the duration, explain the transport procedure, thank the patient.
5. Place a clean sheet over the stretcher or w/c.

6. Verbally communicate to the patient which staff member will indicate that they are ready for the patient to move over to the transportation device. Instruct the patient to move slowly to avoid severe physiological alterations; assist the patient with transfer.
7. Place proper PPE on patient if necessary (gown for Contact, surgical mask for Airborne or Droplet).
8. Cover the patient with a clean sheet.
9. Remove PPE from self, if donned.
10. Perform Hand Hygiene.
11. Place chart in plastic bag.
12. Patients with a critical need (i.e., ventilated patients, dialysis, spinal cord, emergent patients, Cath Lab patients, fractured hip, ortho traction, etc.) may be transported via their own bed. Based on the patient's condition and clinical judgment, there may be other situations when the patient may need to be transported via their own bed. Bed or wheelchair must be cleaned with disinfectant wipe and exposed contact surfaces of the bed will be covered with a sheet.
13. Bariatric patients need to be transported on appropriate pound capacity stretcher. (>350 pounds and up to 660 pounds). Over 660 pounds may be transferred in the bed.
14. Maintain the patient's dignity during the transfer by keeping him/her covered. This will aid in decreasing the patient's anxiety and ensure his/her personal and moral rights.

Medical Emergency Situations

The Standard Precautions system requires hospital personnel to take the time to don PPE and to practice special precautions where contact with blood and body substances may occur. However, medical emergencies may arise when the patient's conditions demands immediate attention and a quick response. In these situations staff members may feel that they have only a limited amount of time in which to take all necessary precautions.

Even in emergency situations, health care workers have both the right and the duty to protect themselves from exposure to potentially infectious blood and body substances.

Willowbrook at Floyd Behavioral Health, Floyd Primary Care Practices/Urgent Cares, Family Medicine Residency, and Heyman Hospice Care:

Standard precautions will be used consistently. Transmission based precautions will be utilized at the discretion of the care provider accepting the limitations of the facility. Because of the nature of the Floyd Primary Care Practices/Urgent Cares and Family Medicine Residency, the condition requiring transmission based precautions is frequently not identified until the diagnosis has been made, or culture reports are available (i.e., after the patient has been examined.).

TRANSMISSION Based Precautions are designed for patients documented or suspected to be infected/ colonized with highly transmissible or epidemiologically important pathogens for which additional precautions beyond Standard Precautions are needed to interrupt transmission. The three categories of Transmission Based Precautions include: Contact, Droplet, and Airborne.

- A. **Signs.** Signs will be placed either on the doors or staff will use the signage provided below the room numbers for patients placed on transmission based precautions. The sign shall be limited to the type of precautions and that visitors should go to the nurse's station prior to entering the room.

- B. **Patient Transport.** If a patient placed on transmission precautions requires transport, notify the area prior to transport about the patient's condition and the requirement for transmission based precautions. See specific transmission precaution for further information.
- C. **Room Selection.** Patients placed under transmission based precautions will be placed in a private room if possible or cohorted with another patient infected with the same illness. If this is not possible, the patient may be placed with a patient who has low risk of infection.
- D. **Foodservice.** Disposable trays and utensils for foodservice are not necessary for patients under transmission based precautions. Dietary carts are cleaned per contractor's policy.
- E. **Visitors.** The nurse will educate visitors about the type of transmission precautions healthcare workers use and the rationale as to why without revealing patient diagnosis unless the patient gives consent. Personal protective equipment (PPE) will be offered to visitors along with general instructions on how to use the PPE specific to the type of precautions being used for droplet and airborne precautions. Visitors are not required to wear PPE for contact precautions, unless the visitor is going to visit another patient in the hospital. An information sheet is available to educate families of patients on contact precautions to determine if the visitor is at risk for infection (e.g., visitor has an open wound, catheter, etc.). Staff will emphasize good hand washing to visitors of all patients.
- F. **Education.** The nurse will educate the patient and/or visitors about hand hygiene, respiratory hygiene (if applicable) and the type of transmission precautions.. The nurse can document this in Cerner under the section "IVIEW" and then "education."
- G. **Environmental Services.** Upon notification that the patient is on transmission precautions, the unit will set the appropriate isolation alerts in Care Logistics, including the type of organism. Upon patient discharge or transfer, the unit will create a Transport Request in Care Logistics. If the patient isolation alert was set, housekeeping will be notified of the terminal clean through the Care Logistics system.
Caddies: The unit staff will remove all supplies from the caddy and return them to the clean utility room. The EVS staff will clean the caddy and return the caddy to the clean utility room. When an isolation caddy is needed, the unit staff will restock the caddy and place it on the room door.

AIRBORNE Precautions are designed to reduce the risk or eliminate the airborne transmission of infectious agents. Airborne transmission occurs by dissemination of either airborne droplet nuclei (small particle residue - 5um or smaller sized evaporated droplets which remain suspended in the air of long periods of time) or dust particles containing the infectious agent. Examples (this is not an inclusive listing) of when airborne precautions are used include patients who have 1) measles, 2) varicella including **disseminated** zoster, and 3) tuberculosis.

All patients who enter the hospital who are: a) diagnosed with confirmed active TB and are infectious, or b) under clinical suspicion of active pulmonary TB or who show signs or symptoms indicative of a possible TB infection should be placed in airborne precautions (i.e., negative pressure, private room with the door kept closed, N-95 particulate respirator for those entering the room).

A patient who has signs and symptoms compatible with tuberculosis, and who have a diagnostic test for TB (i.e., AFB sputum smear or culture shall be placed under airborne precautions until TB has been ruled out as a diagnosis).

- A. Patients will be placed in an airborne infections transmission (negative pressure) room with a minimum of 6 – 12 air exchanges per hour with ventilation either outside or through a high efficiency particulate air filter.
- B. When a patient is placed in an Airborne Precaution room, Plant Facilities must be notified, as these rooms must be tested on a daily basis using a physical test. The bed hub will notify Plant Facilities upon admission or transfer of a patient requiring air negative pressure. **If the patient is currently in a room that is air negative pressure and then the patient’s status changes to need air negative pressure, the nurse needs to notify Plant Ops to check the room for correct pressure daily.**
- C. Patients diagnosed with tuberculosis or rule out tuberculosis will be placed in room 4321 or 4322, if possible.
- D. The designated patient care rooms for Airborne infection precautions at Floyd Medical Center are:

Location	Room(s)
4 Central	4321, 4322
4 South	4402, 4430
5 West	5333, 5334
Ambulatory Surgery	Decontam
Cath Lab 2 nd floor	05
ECC	16, 17, 40, 41 decontamination Zone C
GI Endoscopy	1, 2
Intensive Care Unit (ICU)	3402, 3412, 3414, 3419
Infectious Disease Unit (IDU)	
Labor and Delivery	1
NICU	23
PACU	15
Pediatrics	PIU 003, 3116, 3118
Post Partum	395, 396
PreOp Holding	6
PreOp Staging	4

- E. Doors must remain closed for the airborne negative pressure rooms to work. This includes doors to ante rooms.
- F. An N-95 particulate respirator must be worn when entering the room of a patient in Airborne Precautions. Personnel will have a qualitative fit test prior to being assigned duties requiring the use of an N-95 particulate respirator and will perform a fit check (put mask on and make sure that no air escapes while exhaling) prior to each use. **NOTE:** Gloves and gowns are not required for airborne precautions unless standard precautions require them.
- G. Susceptible persons will not enter the room of patients known or suspected to have measles (rubeola) or varicella (chickenpox). Employees who do not know their status may contact the Employee Health Department.
- H. Only transport the patient to other areas if it is essential. If transport is necessary, schedule a time slot to avoid other patients (e.g., last patient of the day) if possible and notify the area regarding patient's precautions prior to patient transport.
- I. Patient will wear a **surgical or procedural mask** during transport and any time he/she is out of the airborne negative pressure room.
- J. **Willowbrooke at Floyd (Behavioral Health), Floyd Primary Care Practices/Urgent Cares and Family Medicine Residency.** Patients who are suspected to have tuberculosis or another diagnosis which would require airborne precautions should be put in a patient exam room immediately, rather than the common waiting room. If possible, the window to the room may be opened. If the patient requires hospitalization, Patient Placement or the receiving area (e.g., ECC triage) should be notified prior to the patient's arrival so they may be taken directly to an airborne precaution room. The receiving area will notify the Infection Prevention office of the patient's admission.

DROPLET Precautions are designed to reduce the risk of 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 (larger than 5 um in size) containing microorganisms generated from a person who has a clinical disease or who is a carrier of the microorganism. Droplets are generated by the source person during coughing, sneezing, or talking and/or during the performance of certain procedures such as suctioning and bronchoscopy. Transmission via large particle droplets requires close contact between source and recipient persons, because droplets do not remain suspended in the air and generally travel only short distances, usually 6 feet or less.

A. Examples include:

1. Invasive *Haemophilus Influenzae* type b, including meningitis, pneumonia, epiglottitis and sepsis
2. Invasive *Neisseria meningitidis* disease including meningitis, pneumonia and sepsis
3. Diphtheria
4. Mycoplasma pneumonia
5. Pertussis
6. Pneumonic Plague

7. Streptococcal pharyngitis, pneumonia or scarlet fever in infants and young children (24 hours)
 8. Adenovirus (requires contact precautions as well)
 9. Mumps
 10. Parvovirus B19
 11. Rubella
- B. A surgical or procedural mask must be worn when working within a 6 foot diameter of the patient. The healthcare worker may choose to put on the mask prior to entering the room. An airborne transmission negative pressure room is unnecessary. **NOTE:** Gloves and gowns are **not** required for droplet precautions unless standard precautions require them.
- C. Patients will be transported only when medically necessary. Inform the receiving area that the patient is under droplet precautions. Patient will wear a surgical mask during transport.

CONTACT Precautions

- A. **Contact Precaution Alert.** When a patient is admitted and the Cerner EMR banner bar has "Contact Precautions" listed, this signifies that the patient has had a multi-drug resistant organism (MDRO) identified on a prior visit. The nurse is to place the patient in contact precautions and notify the Infection Prevention department.
- B. Patients who have been hospitalized in the last year with identified high risk factors **shall be immediately placed on contact precautions until** VRE/CRE colonization or infection is ruled out. The physician shall be contacted to order a stool culture for VRE screen during the admitting process. High risk factors include:
- ◆ Patients who have been hospitalized for ≥ 5 days OR in a critical care unit within the past year in a hospital (>200 beds, excluding Floyd Medical Center).
 - ◆ Patients who have been previously admitted to a Long Term **Acute** Care Facility. (This does not include Nursing Homes as they are not acute care facilities).
 - ◆ Have a history of VRE or CRE
- C. Contact Precautions are designed to reduce the risk of transmission of epidemiologically important microorganisms by direct or indirect contact. Direct contact transmission involves skin-to-skin contact and physical transfer of microorganisms to a susceptible host from an infected or colonized person, such as occurs when personnel turn patients, bathe patients, or perform other patient care activities that require physical contact. Indirect contact transmission involves contact of a susceptible host with a contaminated intermediate object, usually inanimate, in the patient's environment. Contact precautions are issued for patients infected or colonized with:
1. Methicillin resistant *Staphylococcus aureus*, Vancomycin Resistant *enterococci*
 2. *Clostridium difficile* colitis
 3. Multi-drug resistant organisms at the discretion of the Infection Prevention department. In general this will include persons carrying organisms sensitive to less than one class of antibiotics (with multiple available drugs within each class) that can be used against them.
 4. Diapered or incontinent patients with enterohemorrhagic *E. coli* 0157:H7, *Shigella*, hepatitis A, or rotavirus

5. Respiratory Syncytial Virus, parainfluenza virus, or enteroviral infections in infants and young children
6. Skin infections that may occur on dry skin including:
 - ◆ Diphtheria (cutaneous)
 - ◆ Herpes Simplex Virus (neonatal or mucocutaneous)
 - ◆ Impetigo
 - ◆ Major (non-contained) decubiti, abscesses, or cellulitis
 - ◆ Pediculosis (lice)
 - ◆ Bedbugs
 - ◆ Scabies
 - ◆ Staphylococcal furunculosis in infants and young children
 - ◆ Zoster (*only* disseminated zoster, or in an immunocompromised host (also for disseminated, place under airborne precautions)
 - ◆ Viral or hemorrhagic conjunctivitis
 - ◆ Viral hemorrhagic infections (Ebola, Lassa or Marburg)
 - ◆ ESBL producing organisms
 - ◆ CRE- Carbapenem Resistant Enterobacteriaceae
- D. Hand hygiene is to be performed prior to donning gloves and after removal of gloves. Clean, non-sterile gloves will be worn by all persons entering the room of the patient for **any** reason. Gloves will be changed between caring for different sites on the same patient. Hand hygiene is to be performed prior to donning gloves and after removal of gloves.
- E. Gloves will be worn when having contact with patient care equipment that has been used by a patient on contact precautions (e.g., cleaning a wheelchair).
- F. Staff will wear a clean, non-sterile gown when entering the patient room for **any** reason. The precaution closet caddy will remain stocked; nursing personnel caring for the patient shall ensure that items on the cart remain stocked including Regular and XL sized gowns.
- G. ANY reusable patient equipment must be cleaned after use.
- H. Linen will be stored in a regular linen bag. When the bag is filled, the bag will be closed securely and put in the soiled utility room.
- I. Solid waste generated by isolation procedures (e.g., gowns and gloves) shall be disposed of in a regular waste bag inside the patient's room.
- J. Immediately prior to exiting the patient room, PPE will be removed. Gowns will be taken off prior to gloves, rolling inwards. Gloves will be taken off taking care to avoid contamination of the hands. At that time, hands will be immediately washed with soap and water, or an alcohol antiseptic gel will be used. Avoid recontamination of hands from environmental surfaces.
- K. Transport of patients under contact precautions requires that the patient must be wearing a fresh contact transmission gown outside of the patients' room. The accepting department will implement contact precautions according to policy when the patient arrives in their department.
- L. Patients under contact precautions will be allowed outside of the room at the discretion of the unit supervisor. Acceptable behavior might include walks in the hallway of their nursing unit for exercise.

Table 1
Synopsis of Types of Precautions and Patients Requiring the Precautions*

STANDARD Precautions

Use Standard Precautions for the care of all patients

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 **disseminated** zoster)†
- Tuberculosis‡

DROPLET Precautions

In addition to Standard Precautions, use Droplet Precautions for patients known or suspected to have serious illnesses transmitted by large particle 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 (group A) 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 infection control program, based on current state, regional, or national recommendations, to be of special clinical and epidemiologic significance

Enteric infections with a low infectious dose or prolonged environmental survival, including:

Clostridium difficile

For diapered or incontinent patients: enterohemorrhagic *Escherichia coli* O157: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
Zoster (disseminated or in the immunocompromised host)†
Viral/hemorrhagic conjunctivitis
Viral/hemorrhagic infections (EBOLA, Lassa, or Marbug)*

- * See Appendix A for a complete listing of infections requiring precautions, including appropriate footnotes.
† Certain infections require more than one type of precaution.
‡ See CDC "[Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Facilities](#)."(23)

[Contents](#)

Updated: February 18, 1997

Table 2
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	<i>Clostridium difficile</i>	Contact
Meningitis		
Rash or exanthems, generalized, etiology unknown	<i>Neisseria meningitidis</i>	Droplet
Petechial/ecchymotic with fever	<i>Neisseria meningitidis</i>	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	<i>Mycobacterium tuberculosis</i>	Airborne
Cough/fever/pulmonary infiltrate in any lung location in a HIV-infected patient or a patient at high risk for HIV infection (23)	<i>Mycobacterium tuberculosis</i>	Airborne
Paroxysmal or severe persistent cough during periods of pertussis activity	<i>Bordetella pertussis</i>	Droplet
Respiratory infections, particularly bronchiolitis and croup, in infants and young children	Respiratory syncytial or parainfluenza virus	Contact
Risk of multidrug-resistant microorganisms		
History of infection or colonization with multidrug-resistant organisms	Resistant bacterial	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 bacterial	Contact
Skin or Wound Infection		
Abscess or draining wound that cannot be covered	<i>Staphylococcus aureus</i> , group A streptococcus	Contact

* Infection control professionals are encouraged to modify or adapt this table according to local conditions. To ensure that appropriate empiric precautions are implemented always, hospitals must have systems in place to evaluate patients routinely according to these criteria as part of their preadmission and admission care. † Patients with the syndromes or conditions listed below may present with atypical signs or symptoms (eg, 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* O157:H7, *Shigella*, hepatitis A, and rotavirus.
||Resistant bacteria judged by the infection control program, based on current state, regional, or national recommendations, to be of special clinical or epidemiological significance.

[Contents](#)

Updated: February 18, 1997

Appendix A

Type and Duration of Precautions Needed for Selected Infections and Conditions

Infection/Condition	Precautions	
	Type*	Duration†
Abscess		
Draining, major ^a	C	DI
Draining, minor or limited ^b	S	
Acquired immunodeficiency syndrome ^c	S	
Actinomycosis	S	
Adenovirus infection, in infants and young children	D,C	DI
Amebiasis	S	
Anthrax		
Cutaneous	S	
Pulmonary	S	
Antibiotic-associated colitis (see <i>Clostridium difficile</i>)		
Arthropodborne viral encephalitides (eastern, western, Venezuelan equine encephalomyelitis; St Louis, California encephalitis)	S ^d	
Arthropodborne viral fevers (dengue, yellow fever, Colorado tick fever)	S ^d	
Ascariasis	S	
Aspergillosis	S	
Babesiosis	S	
Blastomycosis, North American, cutaneous or pulmonary	S	
Botulism	S	
Bronchiolitis (see respiratory infections in infants and young children)		
Brucellosis (undulant, Malta, Mediterranean fever)	S	
<i>Campylobacter</i> 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	
Chickenpox (varicella; see F ^e for varicella exposure)	A,C	F ^e
<i>Chlamydia trachomatis</i>		
Conjunctivitis	S	
Genital	S	
Respiratory	S	
Cholera (see gastroenteritis)		
Closed-cavity infection		
Draining, limited or minor	S	
Not draining	S	

Infection/Condition	Precautions	
	Type*	Duration†
<i>Clostridium</i>		
<i>C botulinum</i>	S	
<i>C difficile</i>	C	DI
<i>C perfringens</i>		
Food poisoning	S	
Gas gangrene	S	
Coccidioidomycosis (valley fever)		
Draining lesions	S	
Pneumonia	S	
Colorado tick fever	S	
Congenital rubella	C	F ^f
Conjunctivitis		
Acute bacterial	S	
<i>Chlamydia</i>	S	
Gonococcal	S	
Acute viral (acute hemorrhagic)	C	DI
Coxsackievirus disease (see enteroviral infection)		
Creutzfeldt-Jakob disease	S ^g	
Croup (see respiratory infections in infants and young children)		
Cryptococcosis	S	
Cryptosporidiosis (see gastroenteritis)		
Cysticercosis	S	
Cytomegalovirus infection, neonatal or immunosuppressed	S	
Decubitus ulcer, infected		
Major ^a	C	DI
Minor or limited ^b	S	
Dengue	S ^g	
Diarrhea, acute-infective etiology suspected (see gastroenteritis)		
Diphtheria		
Cutaneous	C	CN ^h
Pharyngeal	D	CN ^h
Ebola viral hemorrhagic fever	C ⁱ	DI
Echinococcosis (hydatidosis)	S	
Echovirus (see enteroviral infection)		
Encephalitis or encephalomyelitis (see specific etiologic agents)		
Endometritis	S	
Enterobiasis (pinworm disease, oxyuriasis)	S	
<i>Enterococcus</i> species (see multidrug-resistant organisms if epidemiologically significant or vancomycin resistant)		
Enterocolitis, <i>Clostridium difficile</i>	C	DI

Infection/Condition	Precautions	
	Type*	Duration†
Enteroviral infections		
Adults	S	
Infants and young children	C	DI
Epiglottitis, due to <i>Haemophilus influenzae</i>	D	U(24 hrs)
Epstein-Barr virus infection, including infectious mononucleosis	S	
Erythema infectiosum (also see Parvovirus B19)	S	
<i>Escherichia coli</i> gastroenteritis (see gastroenteritis)		
Food poisoning		
Botulism	S	
<i>Clostridium perfringens</i> or <i>welchii</i>	S	
Staphylococcal	S	
Furunculosis-staphylococcal		
Infants and young children	C	DI
Gangrene (gas gangrene)	S	
Gastroenteritis		
<i>Campylobacter</i> species	S ⁱ	
Cholera	S ⁱ	
<i>Clostridium difficile</i>	C	DI
<i>Cryptosporidium</i> species	S ⁱ	
<i>Escherichia coli</i>		
Enterohemorrhagic O157:H7	S ⁱ	
Diapered or incontinent	C	DI
Other species	S ⁱ	
<i>Giardia lamblia</i>	S ⁱ	
Rotavirus	S ⁱ	
Diapered or incontinent	C	DI
<i>Salmonella</i> species (including <i>S typhi</i>)	S ⁱ	
<i>Shigella</i> species	S ⁱ	
Diapered or incontinent	C	DI
<i>Vibrio parahaemolyticus</i>	S ⁱ	
Viral (if not covered elsewhere)	S ⁱ	
<i>Yersinia enterocolitica</i>	S ⁱ	
German measles (see rubella)		
Giardiasis (see gastroenteritis)		
Gonococcal ophthalmia neonatorum (gonorrheal ophthalmia, 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)		
<i>Hantavirus</i> pulmonary syndrome	S	

Infection/Condition	Precautions	
	Type*	Duration†
<i>Helicobacter pylori</i>	S	
Hemorrhagic fevers (for example, Lassa and Ebola)	C ⁱ	DI
Hepatitis, viral		
Type A	S	
Diapered or incontinent patients	C	F ^k
Type B-HBsAg positive	S	
Type C and other unspecified non-A, non-B	S	
Type E	S	
Herpangina (see enteroviral infection)		
Herpes simplex (<i>Herpesvirus hominis</i>)		
Encephalitis	S	
Neonatal ^l (see F ^l for neonatal exposure)	C	DI
Mucocutaneous, disseminated or primary, severe	C	DI
Mucocutaneous, recurrent (skin, oral, genital)	S	
Herpes zoster (varicella-zoster)		
Localized in immunocompromised patient, or disseminated	A,C	DI ^m
Localized in normal patient	S ^m	
Histoplasmosis	S	
HIV (see human immunodeficiency virus)	S	
Hookworm disease (ancylostomiasis, uncinariasis)	S	
Human immunodeficiency virus (HIV) infection ^c	S	
Impetigo	C	U(24 hrs)
Infectious mononucleosis	S	
Influenza	D ⁿ	DI
Kawasaki syndrome	S	
Lassa fever	C ⁱ	DI
Legionnaires' disease	S	
Leprosy	S	
Leptospirosis	S	
Lice (pediculosis)	C	U(24 hrs)
Listeriosis	S	
Lyme disease	S	
Lymphocytic choriomeningitis	S	
Lymphogranuloma venereum	S	
Malaria	S ^d	
Marburg virus disease	C ⁱ	DI
Measles (rubeola), all presentations	A	DI
Melioidosis, all forms	S	

Infection/Condition	Precautions	
	Type*	Duration†
Meningitis		
Aseptic (nonbacterial or viral meningitis; also see enteroviral infections)	S	
Bacterial, gram-negative enteric, in neonates	S	
Fungal	S	
<i>Haemophilus influenzae</i> , known or suspected	D	U(24 hrs)
<i>Listeria monocytogenes</i>	S	
<i>Neisseria meningitidis</i> (meningococcal) known or suspected	D	U(24 hrs)
Pneumococcal	S	
Tuberculosis ^a	S	
Other diagnosed bacterial	S	
Meningococcal pneumonia	D	U(24 hrs)
Meningococcemia (meningococcal sepsis)	D	U(24 hrs)
<i>Molluscum contagiosum</i>	S	
Mucormycosis	S	
Multidrug-resistant organisms, infection or colonization ^b		
Gastrointestinal	C	CN
Respiratory	C	CN
Pneumococcal	S	
Skin, wound, or burn	C	CN
Mumps (infectious parotitis)	D	F ^a
Mycobacteria, nontuberculosis (atypical)		
Pulmonary	S	
Wound	S	
<i>Mycoplasma pneumonia</i>	D	DI
Necrotizing enterocolitis	S	
Nocardiosis, draining lesions or other presentations	S	
Norwalk agent gastroenteritis (see viral gastroenteritis)		
Orf	S	
Parainfluenza virus infection, respiratory in infants and young children	C	DI
Parvovirus B19	D	F ^f
Pediculosis (lice)	C	U(24 hrs)
Pertussis (whooping cough)	D	F ^s
Pinworm infection	S	
Plague		
Bubonic	S	
Pneumonic	D	U(72 hrs)
Pleurodynia (see enteroviral infection)		

Infection/Condition	Precautions	
	Type*	Duration†
Pneumonia		
Adenovirus	D,C	DI
Bacterial not listed elsewhere (including gram-negative bacterial)	S	
<i>Burkholderia cepacia</i> in cystic fibrosis (CF) patients, including respiratory tract colonization	S ^f	
<i>Chlamydia</i>	S	
Fungal	S	
<i>Haemophilus influenzae</i>		
Adults	S	
Infants and children (any age)	D	U(24 hrs)
<i>Legionella</i>	S	
Meningococcal	D	U(24 hrs)
Multidrug-resistant bacterial (see multidrug-resistant organisms)		
<i>Mycoplasma</i> (primary atypical pneumonia)	D	DI
Pneumococcal	S	
Multidrug-resistant (see multidrug-resistant organisms)		
<i>Pneumocystis carinii</i>	S ^u	
<i>Pseudomonas cepacia</i> (see <i>Burkholderia cepacia</i>)	S ^f	
<i>Staphylococcus aureus</i>	S	
<i>Streptococcus</i> , group A		
Adults	S	
Infants and young children	D	U(24hrs)
Viral		
Adults	S	
Infants and young children (see respiratory infectious disease, acute)		
Poliomyelitis	S	
Psittacosis (ornithosis)	S	
Q fever	S	
Rabies	S	
Rat-bite fever (<i>Streptobacillus moniliformis</i> disease, <i>Spirillum minus</i> 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 ^c	C	DI
Respiratory syncytial virus infection, in infants and young children, and immunocompromised adults	C	DI
Reye's syndrome	S	
Rheumatic fever	S	

Infection/Condition	Precautions	
	Type*	Duration†
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)	S	
Rocky Mountain spotted fever	S	
Roseola infantum (exanthem subitum)	S	
Rotavirus infection (see gastroenteritis)		
Rubella (German measles; also see congenital rubella)	D	F ^v
Salmonellosis (see gastroenteritis)		
Scabies	C	U(24 hrs)
Scalded skin syndrome, staphylococcal (Ritter's disease)	S	
Schistosomiasis (bilharziasis)	S	
Shigellosis (see gastroenteritis)		
Sporotrichosis	S	
<i>Spirillum minus</i> disease (rat-bite fever)	S	
Staphylococcal disease (<i>S aureus</i>)		
Skin, wound, or burn		
Major ^a	C	DI
Minor or limited ^b	S	
Enterocolitis	S ⁱ	
Multidrug-resistant (see multidrug-resistant organisms)		
Pneumonia	S	
Scalded skin syndrome	S	
Toxic shock syndrome	S	
<i>Streptobacillus moniliformis</i> disease (rat-bite fever)	S	
Streptococcal disease (group A streptococcus)		
Skin, wound, or burn		
Major ^a	C	U(24 hrs)
Minor or limited ^b	S	
Endometritis (puerperal sepsis)	S	
Pharyngitis in infants and young children	D	U(24 hrs)
Pneumonia in infants and young children	D	U(24 hrs)
Scarlet fever in infants and young children	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	
Syphilis		
Skin and mucous membrane, including congenital, primary, secondary	S	
Latent (tertiary) and seropositivity without lesions	S	

Infection/Condition	Precautions	
	Type*	Duration†
Tapeworm disease		
<i>Hymenolepis nana</i>	S	
<i>Taenia solium</i> (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)	S	
Extrapulmonary, meningitis ^a	S	
Pulmonary, confirmed or suspected or laryngeal disease	A	F ^w
Skin-test positive with no evidence of current pulmonary disease	S	
Tularemia		
Draining lesion	S	
Pulmonary	S	
Typhoid (<i>Salmonella typhi</i>) fever (see gastroenteritis)		
Typhus, endemic and epidemic	S	
Urinary tract infection (including pyelonephritis), with or without urinary catheter	S	
Varicella (chickenpox)	A,C	F ^e
<i>Vibrio parahaemolyticus</i> (see gastroenteritis)		
Vincent's angina (trench mouth)	S	
Viral diseases		
Respiratory (if not covered elsewhere)		
Adults	S	
Infants and young children (see respiratory infectious disease, acute)		
Whooping cough (pertussis)	D	F ^s
Wound infections		
Major ^a	C	DI
Minor or limited ^b	S	
<i>Yersinia enterocolitica</i> gastroenteritis (see gastroenteritis)		
Zoster (varicella-zoster)		
Localized in immunocompromised patient, disseminated	A,C	DI ^m
Localized in normal patient	S ^m	
Zygomycosis (phycomycosis, mucormycosis)	S	

Abbreviations:

* Type of Precautions: A, Airborne; C, Contact; D, Droplet; S, Standard; when A, C, and D are specified, also use S.

† Duration of precautions: CN, until off antibiotics and culture-negative; DI, duration of illness (with wound lesions, DI means until they stop draining); U, until time specified in hours (hrs) after initiation of effective therapy; F, see footnote.

^a No dressing or dressing does not contain drainage adequately.

^b Dressing covers and contains drainage adequately.

^c Also see syndromes or conditions listed in Table 2.

^d Install screens in windows and doors in endemic areas.

^e Maintain precautions until all lesions are crusted. The average incubation period for varicella is 10 to 16 days, with a range of 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 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.

^f 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.

^g 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.

^h Until two cultures taken at least 24 hours apart are negative.

ⁱ Call state health department and CDC for specific advice about management of a suspected case. During the 1995 Ebola outbreak in Zaire, interim recommendations were published.⁽⁹⁷⁾ Pending a comprehensive review of the epidemiologic data from the outbreak and evaluation of the interim recommendations, the 1988 guidelines for management of patients with suspected viral hemorrhagic infections (16) will be reviewed and updated if indicated.

^j Use Contact Precautions for diapered or incontinent children <6 years of age for duration of illness.

^k 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.

^l 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.

^m 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.

ⁿ The "[Guideline for Prevention of Nosocomial Pneumonia](#)" (95,96) 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" (95,96) for additional prevention and control strategies.

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

^p Resistant bacteria judged by the infection control program, based on current state, regional, or national recommendations, to be of special clinical and epidemiologic significance.

^q For 9 days after onset of swelling.

^r Maintain precautions for duration of hospitalization when chronic disease occurs in an immunodeficient patient. For patients with transient aplastic crisis or red-cell crisis, maintain precautions for 7 days.

^s Maintain precautions until 5 days after patient is placed on effective therapy.

^t 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.

^u Avoid placement in the same room with an immunocompromised patient.

^v Until 7 days after onset of rash.

^w 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. Also see CDC

"[Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Facilities](#)."(23)
