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**CDC GUIDELINE FOR
ISOLATION PRECAUTIONS IN HOSPITALS**

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AND

**CDC GUIDELINE FOR INFECTION CONTROL
IN HOSPITAL PERSONNEL**

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Part of the Manual Entitled
Guidelines for Prevention and Control of Nosocomial Infections

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES


Public Health Service

Centers for Disease Control

Center for Infectious Diseases

Hospital Infections Program

Atlanta, Georgia 30333



Preface to the Guidelines Series

The *Guidelines for the Prevention and Control of Nosocomial Infections* is a series of guidelines intended for use by hospital personnel who are responsible for infection surveillance and control activities. The guidelines have been derived from a variety of sources, including studies conducted by the Centers for Disease Control and by others and have undergone extensive review by experts, many of whom are engaged in the daily practice of infection surveillance and control. The guidelines are assembled in loose-leaf form to allow for periodic revisions and additions, since we fully expect the guidelines to change as new knowledge is acquired.

The titles of the various guidelines are listed below. Others may be added in the future. Within each guideline the date of original publication and subsequent revision, if any, appear at the bottom of each page. Additional copies of all guidelines are available from:

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Preface

The first Centers for Disease Control (CDC) recommendations for isolation appeared in the manual *Isolation Techniques for Use in Hospitals*, published in 1970. The second edition of the manual was published first in 1975 and with minor revisions in 1978. All have been reprinted many times. Because knowledge of the epidemiology of infectious diseases can change, isolation recommendations should be revised periodically. Furthermore, CDC recognizes the need to keep isolation recommendations current by including newly described syndromes, such as toxic shock syndrome and acquired immunodeficiency syndrome, and emerging pathogens, such as multiply-resistant microorganisms and *Legionella pneumophila*.

The 1983 CDC recommendations for isolation precautions have been developed as a guideline, similar to those recently published on other topics. The title of the isolation recommendations has been changed to include the word "guideline," and it will become part of the CDC series entitled *Guidelines for the Prevention and Control of Nosocomial Infections*. Adult and pediatric infectious disease specialists,

hospital epidemiologists, infection control nurses, and a surgeon served in a working group to give CDC consultation by outside experts.

The isolation precautions presented in this guideline are considered to be a collection of prudent practices recommended by CDC personnel and a panel of outside experts. Some of the isolation recommendations are based on well-documented modes of transmission identified in epidemiologic studies. Other recommendations are based on a reasonable theoretical rationale, as evidenced by consensus of the working group members. Since there have been few studies to test the efficacy of isolation recommendations, members of the working group did not rank the recommendations by the degree to which they have been substantiated by scientific data or the strength of the working group's opinion on their effectiveness or practical value. The recommendations presented in this guideline may be modified as necessary for an individual hospital and are not meant to restrict hospitals from requiring additional precautions. The guideline will be revised as the need is recognized.

Table A. Category-Specific Isolation Precautions

DISEASE	CATEGORY	INFECTIVE MATERIAL	APPLY PRE-CAUTIONS HOW LONG?	COMMENTS
Strongyloidiasis	None	Feces may be		If patient is immunocompromised and has pneumonia or has disseminated disease, respiratory secretions may be infective.
Syphilis				
Skin and mucous membrane, including congenital, primary, and secondary	Drainage/ Secretion Precautions, Blood/Body Fluid Precautions	Lesion secretions and blood	For 24 hours after start of effective therapy	Skin lesions of primary and secondary syphilis may be highly infective.
Latent (tertiary) and seropositivity without lesions	None			
Tapeworm disease				
<i>Hymenolepis nana</i>	None	Feces may be		
<i>Taenia solium</i> (pork)	None	Feces may be		
Other	None			
Tetanus	None			
Tinea (fungus infection, dermatophytosis, dermatomycosis, ringworm)	None			
"TORCH" syndrome (If congenital forms of the following diseases are seriously being considered, see separate listing for these diseases: toxoplasmosis, rubella, cytomegalovirus, herpes, and syphilis.)				
Toxic shock syndrome (staphylococcal disease)	Drainage/ Secretion Precautions	Vaginal discharge and pus	Duration of illness	
Toxoplasmosis	None			
Trachoma, acute	Drainage/ Secretion Precautions	Purulent exudate	Duration of illness	
Trench mouth (Vincent's angina)	None			
Trichinosis	None			
Trichomoniasis	None			
Trichuriasis (whipworm disease)	None			
Tuberculosis				
Extrapulmonary, draining lesion (including scrofula)	Drainage/ Secretion Precautions	Pus	Duration of drainage	A private room is especially important for children.
Extrapulmonary, meningitis	None			

Table A. Category-Specific Isolation Precautions

DISEASE	CATEGORY	INFECTIVE MATERIAL	APPLY PRECAUTIONS HOW LONG?	COMMENTS
Tuberculosis (cont.)				
Pulmonary, confirmed or suspected (sputum smear is positive or chest X-ray appearance strongly suggests current [active] TB, for example, a cavitory lesion is found), or laryngeal disease.	Tuberculosis Isolation (AFB Isolation)	Airborne droplet nuclei	In most instances the duration of isolation precautions can be guided by clinical response and a reduction in numbers of TB organisms on sputum smear. Usually this occurs within 2-3 weeks after chemotherapy is begun. When the patient is likely to be infected with isoniazid-resistant organisms, apply precautions until patient is improving and sputum smear is negative for TB organisms.	Prompt use of effective antituberculous drugs is the most effective means of limiting transmission. Gowns are not important because TB is rarely spread by fomites, although gowns are indicated to prevent gross contamination of clothing. For more detailed guidelines refer to "Guidelines for Prevention of TB Transmission in Hospitals" (1982), Tuberculosis Control Division, Center for Prevention Services, Centers for Disease Control, Atlanta, GA (HHS Publication No. [CDC] 82-8371) and CDC Guideline for Infection Control in Hospital Personnel. In general, infants and young children do not require isolation precautions because they rarely cough and their bronchial secretions contain few TB organisms compared to adults with pulmonary TB.
Skin-test positive with no evidence of current pulmonary disease (sputum smear is negative, X-ray not suggestive of current [active] disease)	None			
Tularemia				
Draining lesion	Drainage/ Secretion Precautions	Pus may be	Duration of illness	
Pulmonary	None	Respiratory secretions may be		
Typhoid fever	Enteric Precautions	Feces	Duration of illness	
Typhus, endemic and epidemic	None	Blood may be		
Urinary tract infection (including pyelonephritis), with or without urinary catheter	None			See multiply-resistant bacteria if infection is with these bacteria. Spatially separate infected and uninfected patients who have indwelling catheters (see CDC Guideline for Prevention of Catheter-associated Urinary Tract Infection).

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Strict Isolation

Visitors—Report to Nurses' Station Before Entering Room

1. Masks are indicated for all persons entering room.
2. Gowns are indicated for all persons entering room.
3. Gloves are indicated for all persons entering room.
4. **HANDS MUST BE WASHED AFTER TOUCHING THE PATIENT OR POTENTIALLY CONTAMINATED ARTICLES AND BEFORE TAKING CARE OF ANOTHER PATIENT.**
5. Articles contaminated with infective material should be discarded or bagged and labeled before being sent for decontamination and reprocessing.

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Diseases Requiring Strict Isolation*

Diphtheria, pharyngeal

Lassa fever and other viral hemorrhagic fevers, such as Marburg virus disease§

Plague, pneumonic

Smallpox§

Varicella (chickenpox)

Zoster, localized in immunocompromised patient, or disseminated

*A private room is indicated for Strict Isolation; in general, however, patients infected with the same organism may share a room. See Guideline for Isolation Precautions in Hospitals for details and for how long to apply precautions.

§A private room with special ventilation is indicated.

Contact Isolation

Visitors—Report to Nurses' Station Before Entering Room

1. Masks are indicated for those who come close to patient.
2. Gowns are indicated if soiling is likely.
3. Gloves are indicated for touching infective material.
4. HANDS MUST BE WASHED AFTER TOUCHING THE PATIENT OR POTENTIALLY CONTAMINATED ARTICLES AND BEFORE TAKING CARE OF ANOTHER PATIENT.
5. Articles contaminated with infective material should be discarded or bagged and labeled before being sent for decontamination and reprocessing.

Diseases or Conditions Requiring Contact Isolation*

Acute respiratory infections in infants and young children, including croup, colds, bronchitis, and bronchiolitis caused by respiratory syncytial virus, adenovirus, coronavirus, influenza viruses, parainfluenza viruses, and rhinovirus

Conjunctivitis, gonococcal, in newborns

Diphtheria, cutaneous

Endometritis, group A *Streptococcus*

Furunculosis, staphylococcal, in newborns

Herpes simplex, disseminated, severe primary or neonatal

Impetigo

Influenza, in infants and young children

Multiply-resistant bacteria, infection or colonization (any site) with any of the following:

1. Gram-negative bacilli resistant to all aminoglycosides that are tested. (In general, such organisms should be resistant to gentamicin, tobramycin, and amikacin for these special precautions to be indicated.)
2. *Staphylococcus aureus* resistant to methicillin (or nafcillin or oxacillin if they are used instead of methicillin for testing)

3. *Pneumococcus* resistant to penicillin

4. *Haemophilus influenzae* resistant to ampicillin (beta-lactamase positive) and chloramphenicol

5. Other resistant bacteria may be included in this isolation category if they are judged by the infection control team to be of special clinical and epidemiologic significance.

Pediculosis

Pharyngitis, infectious, in infants and young children

Pneumonia, viral, in infants and young children

Pneumonia, *Staphylococcus aureus* or group A *Streptococcus*

Rabies

Rubella, congenital and other

Scabies

Scalded skin syndrome (Ritter's disease)

Skin, wound, or burn infection, major (draining and not covered by a dressing or dressing does not adequately contain the purulent material), including those infected with *Staphylococcus aureus* or group A *Streptococcus*

Vaccinia (generalized and progressive eczema vaccinatum)

*A private room is indicated for Contact Isolation; in general, however, patients infected with the same organism may share a room. During outbreaks, infants and young children with the same respiratory clinical syndrome may share a room. See Guideline for Isolation Precautions in Hospitals for details and for how long to apply precautions.

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Respiratory Isolation

Visitors—Report to Nurses' Station Before Entering Room

1. Masks are indicated for those who come close to patient.
2. Gowns are not indicated.
3. Gloves are not indicated.
4. HANDS MUST BE WASHED AFTER TOUCHING THE PATIENT OR POTENTIALLY CONTAMINATED ARTICLES AND BEFORE TAKING CARE OF ANOTHER PATIENT.
5. Articles contaminated with infective material should be discarded or bagged and labeled before being sent for decontamination and reprocessing.

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Diseases Requiring Respiratory Isolation*

Epiglottitis, *Haemophilus influenzae*
Erythema infectiosum
Measles
Meningitis
 Haemophilus influenzae, known or suspected
 Meningococcal, known or suspected
Meningococcal pneumonia
Meningococcemia
Mumps
Pertussis (whooping cough)
Pneumonia, *Haemophilus influenzae*, in children (any age)

*A private room is indicated for Respiratory Isolation; in general, however, patients infected with the same organism may share a room. See Guideline for Isolation Precautions in Hospitals for details and for how long to apply precautions.

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AFB Isolation

Visitors—Report to Nurses' Station Before Entering Room

1. Masks are indicated only when patient is coughing and does not reliably cover mouth.
2. Gowns are indicated only if needed to prevent gross contamination of clothing.
3. Gloves are not indicated.
4. **HANDS MUST BE WASHED AFTER TOUCHING THE PATIENT OR POTENTIALLY CONTAMINATED ARTICLES AND BEFORE TAKING CARE OF ANOTHER PATIENT.**
5. Articles should be discarded, cleaned, or sent for decontamination and reprocessing.

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Diseases Requiring AFB Isolation*

This isolation category is for patients with current pulmonary TB who have a positive sputum smear or a chest X-ray appearance that strongly suggests current (active) TB. Laryngeal TB is also included in this category. In general, infants and young children with pulmonary TB do not require isolation precautions because they rarely cough and their bronchial secretions contain few AFB compared with adults with pulmonary TB. To protect the patient's privacy, this instruction card is labeled AFB (acid-fast bacilli) Isolation rather than Tuberculosis Isolation.

*A private room with special ventilation is indicated for AFB isolation. In general, patients infected with the same organism may share a room. See Guideline for Isolation Precautions in Hospitals for details and for how long to apply precautions.

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Enteric Precautions

Visitors—Report to Nurses' Station Before Entering Room

Wear gloves and gown if soiling is likely.

Do not lean over bed for touching infective material.

PATIENTS MUST BE WASHED AFTER TOUCHING THE PATIENT OR POTENTIALLY CONTAMINATED ARTICLES AND BEFORE TAKING CARE OF ANOTHER PATIENT.

Articles contaminated with infective material should be discarded or bagged and labeled before being sent for decontamination and reprocessing.

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Diseases Requiring Enteric Precautions*

Amebic dysentery

Cholera

Coxsackievirus disease

Diarrhea, acute illness with suspected infectious etiology

Echovirus disease

Encephalitis (unless known not to be caused by enteroviruses)

Enterocolitis caused by *Clostridium difficile* or *Staphylococcus aureus*

Enteroviral infection

Gastroenteritis caused by

Campylobacter species

Cryptosporidium species

Diarrhoea (bacterial)

Escherichia coli (enterotoxigenic, enteropathogenic, or

enterohemorrhagic)

Shigella species

Salmonella species

Shigella species

Vibrio parahaemolyticus

Viruses—including Norwalk agent and rotavirus

Yersinia enterocolitica

Unknown etiology but presumed to be an infectious agent

Hand, foot, and mouth disease

Hepatitis, viral, type A

Herpangina

Meningitis, viral (unless known not to be caused by enteroviruses)

Necrotizing enterocolitis

Pleurodynia

Poliovirus

Typhoid fever (*Salmonella typhi*)

Viral pericarditis, myocarditis, or meningitis (unless known not to be caused by enteroviruses)

*Enteric precautions are indicated if patient hygiene is poor. A patient with poor hygiene does not wash hands after touching infective material, contaminates the environment with infective material, or shares contaminated articles with other patients. In general, patients should not share the same bathroom or share a room. See Guideline for Isolation Precautions in Hospitals for details and for how long to apply precautions.

Drainage/Secretion Precautions

Visitors—Report to Nurses' Station Before Entering Room

1. Masks are not indicated.
2. Gowns are indicated if soiling is likely.
3. Gloves are indicated for touching infective material.
4. **HANDS MUST BE WASHED AFTER TOUCHING THE PATIENT OR POTENTIALLY CONTAMINATED ARTICLES AND BEFORE TAKING CARE OF ANOTHER PATIENT.**
5. Articles contaminated with infective material should be discarded or bagged and labeled before being sent for decontamination and reprocessing.

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Diseases Requiring Drainage/Secretion Precautions*

Infectious diseases included in this category are those that result in production of infective purulent material, drainage, or secretions, unless the disease is included in another isolation category that requires more rigorous precautions. (If you have questions about a specific disease, see the listing of infectious diseases in Guideline for Isolation Precautions in Hospitals, Table A, Disease-Specific Isolation Precautions.)

The following infections are examples of those included in this category provided they are *not* a) caused by multiply-resistant microorganisms, b) major (draining and not covered by a dressing or dressing does not adequately contain the drainage) skin, wound, or burn infections, including those caused by *Staphylococcus aureus* or group A *Streptococcus*, or c) gonococcal eye infections in newborns. See Contact Isolation if the infection is one of these 3.

Abscess, minor or limited

Burn infection, minor or limited

Conjunctivitis

Decubitus ulcer, infected, minor or limited

Skin infection, minor or limited

Wound infection, minor or limited

*A private room is usually not indicated for Drainage/Secretion Precautions. See Guideline for Isolation Precautions in Hospitals for details and for how long to apply precautions.

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Blood/Body Fluid Precautions

Visitors—Report to Nurses' Station Before Entering Room

1. Masks are not indicated.
2. Gowns are indicated if soiling with blood or body fluids is likely.
3. Gloves are indicated for touching blood or body fluids.
4. **HANDS SHOULD BE WASHED IMMEDIATELY IF THEY ARE POTENTIALLY CONTAMINATED WITH BLOOD OR BODY FLUIDS AND BEFORE TAKING CARE OF ANOTHER PATIENT.**
5. Articles contaminated with blood or body fluids should be discarded or bagged and labeled before being sent for decontamination and reprocessing.
6. Care should be taken to avoid needle-stick injuries. Used needles should not be recapped or bent; they should be placed in a prominently labeled, puncture-resistant container designated specifically for such disposal.
7. Blood spills should be cleaned up promptly with a solution of 5.25% sodium hypochlorite diluted 1:10 with water.

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Diseases Requiring Blood/Body Fluid Precautions*

Acquired immunodeficiency syndrome (AIDS)
Arthropodborne viral fevers (for example, dengue, yellow fever, and Colorado tick fever)
Babesiosis
Creutzfeldt-Jakob disease
Hepatitis B (including HBsAg antigen carrier)
Hepatitis, non-A, non-B
Leptospirosis
Malaria
Rat-bite fever
Relapsing fever
Syphilis, primary and secondary with skin and mucous membrane lesions

*A private room is indicated for Blood/Body Fluid Precautions if patient hygiene is poor. A patient with poor hygiene does not wash hands after touching infective material, contaminates the environment with infective material, or shares contaminated articles with other patients. In general, patients infected with the same organism may share a room. See Guideline for Isolation Precautions in Hospitals for details and for how long to apply precautions.

Table B. Disease-specific Isolation Precautions

DISEASE	PRECAUTIONS INDICATED				INFECTIVE MATERIAL	APPLY PRE-CAUTIONS HOW LONG?	COMMENTS
	PRIVATE ROOM?	MASKS?	GOWNS?	GLOVES?			
Tuberculosis (cont.)							
Pulmonary, confirmed or suspected (sputum smear is positive or chest X-ray appearance strongly suggests current [active] TB, for example, a cavitary lesion is found), or laryngeal disease.	Yes with special ventilation	Yes if patient is coughing and does not reliably cover mouth	Yes if gross contamination of clothing is likely	No	Airborne droplet nuclei	In most instances the duration of isolation precautions can be guided by clinical response and a reduction in numbers of TB organisms on sputum smear. Usually this occurs within 2-3 weeks after chemotherapy is begun. When the patient is likely to be infected with isoniazid-resistant organisms, apply precautions until patient is improving and sputum smear is negative for TB organisms.	Prompt use of effective antituberculous drugs is the most effective means of limiting transmission. Gowns are not important because TB is rarely spread by fomites, although gowns are indicated to prevent gross contamination of clothing. For more detailed guidelines refer to "Guidelines for Prevention of TB Transmission in Hospitals" (1982), Tuberculosis Control Division, Center for Prevention Services, Centers for Disease Control, Atlanta, GA, (HHS Publication No. [CDC] 82-8371) and CDC Guideline for Infection Control in Hospital Personnel. In general, infants and young children do not require isolation precautions because they rarely cough and their bronchial secretions contain few TB organisms compared to adults with pulmonary TB.
Skin-test positive with no evidence of current pulmonary disease (sputum smear is negative, X-ray not suggestive of current [active] disease)	No	No	No	No			
Tularemia							
Draining lesion	No	No	Yes if soiling is likely	Yes for touching infective material	Pus may be	Duration of illness	
Pulmonary	No	No	No	No	Respiratory secretions may be		