Droplet precautions

Reviewed: June 14, 2019

Introduction

Droplet precautions prevent infectious pathogens from traveling from the respiratory tract of an infected person to the mucous membranes of a susceptible host.1 These pathogens, carried by respiratory droplets, spread when an infected person coughs, sneezes, or talks or during such procedures as suctioning or endotracheal intubation. (See Conditions requiring droplet precautions.)

Ideally, a patient requiring droplet precautions should be in a single-patient room.1 Anyone having direct contact with the patient or who'll be within 3’ (1 M) of the patient should wear a surgical mask covering the nose and mouth. When exposure to a highly virulent pathogen is likely, wearing a mask when within 6 ‘to 10’ (2 to 3 M) of the patient or upon entering the patient's room offers further protection.1


Clinical alert: Refer to the latest recommendations from the Centers for Disease Control and Prevention, located at https://www.cdc.gov/yhf/ebola/clinicians/index.html, when caring for a patient with known or suspected Ebola virus disease.1

As a general precaution, anyone who enters a health care facility with signs of a respiratory infection (such as a cough, congestion, rhinorrhea, or increased respiratory secretions) should cover the mouth and nose with a tissue when coughing and should dispose of soiled tissues promptly.2 The patient should wear a surgical mask, if tolerated, and perform hand hygiene after contact with respiratory secretions.1 If possible, the patient should be separated by at least 3’ (1 M) from other people in common waiting areas to prevent the spread of infection.1 These actions can help prevent the spread of infectious pathogens until appropriate isolation precautions can be established.

Pediatric alert: When handling infants or young children who require droplet precautions, you may also need to institute contact precautions and wear gloves and a gown to prevent soiling of clothing from nasal and oral secretions.1

<table>
<thead>
<tr>
<th>CONDITIONS REQUIRING DROPLET PRECAUTIONS</th>
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<tr>
<td>An infected patient may transmit certain conditions via respiratory droplets. Such conditions require droplet precautions.1 The table below lists conditions that require droplet precautions, along with the precautionary period and any special considerations.</td>
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<tr>
<td><strong>Condition</strong></td>
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<td>Adenovirus infection in infants and young children</td>
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<td>Diphtheria (pharyngeal)</td>
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<td>Influenza (seasonal)</td>
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<thead>
<tr>
<th>Disease Description</th>
<th>Duration of Precaution</th>
<th>Precautions</th>
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| *Haemophilus influenzae* type b disease, including epiglottitis, meningitis, pneumonia, and sepsis | Until 24 hours after initiation of effective therapy | • Household contacts should receive postexposure prophylactic antibiotic therapy.  
• Health care workers exposed to respiratory secretions should receive postexposure prophylactic antibiotic therapy.  
• A postexposure vaccine may help control outbreaks. |
| *Neisseria meningitidis* disease, including meningitis, pneumonia, and sepsis      | Until 24 hours after initiation of effective therapy | -  |
| Mumps                                                                              | For 5 days after the onset of swelling<sup>4</sup>        | • Susceptible health care workers shouldn't provide care if immune caregivers are available. |
| *Mycoplasma pneumoniae* infection                                                  | Duration of illness    | -  |
| Parvovirus B19 (erythema infectiosum)                                             | Duration of hospitalization when chronic disease occurs in immunocompromised patients  
For 7 days in patients with transient aplastic crisis or red-cell crisis | • Duration of precautions for immunosuppressed patients with persistently positive polymerase chain reaction is unknown, but transmission has occurred. |
| Pertussis (whooping cough)                                                        | Until 5 days after initiation of effective therapy | • Household contacts should receive postexposure prophylaxis.  
• Health care workers with prolonged exposure to respiratory secretions should receive postexposure prophylaxis. |
| Pneumonic plague                                                                  | Until 48 hours after initiation of effective therapy | • Exposed health care workers should receive postexposure prophylactic antibiotics. |
| Rhinovirus                                                                        | Duration of illness    | • Institute contact precautions if contact with copious moist secretions is likely. |
| Rubella (German measles)                                                           | Until 7 days after onset of rash | • Susceptible health care workers shouldn't enter the room if immune caregivers are available.  
• Administer vaccine to nonpregnant susceptible individuals within 3 days of exposure.  
• Place exposed susceptible patients on droplet precautions. |
| Severe acute respiratory syndrome                                                  | Duration of illness plus 10 | • Airborne precautions are |
| Streptococcal group A disease, including pharyngitis (in infants and young children), pneumonia, serious invasive disease, and scarlet fever (in infants and young children) | Until 24 hours after initiation of effective therapy | If the patient has skin lesions, institute contact precautions. |
| Viral hemorrhagic fevers (Ebola, Lassa, Marburg, and Crimean-Congo fever viruses) | Duration of illness | Institute contact precautions. Wear eye protection. Handle waste appropriately. Use an N95 (or higher) respirator mask when performing aerosol-generating procedures. If you suspect Ebola, notify public health officials, as required by your facility. |

### Equipment
- Mask
- Tissues
- **DROPLET PRECAUTIONS** sign
- Optional: gown, gloves, no-touch tissue disposal receptacle

Gather additional supplies necessary for routine patient care, such as a thermometer, stethoscope, and blood pressure cuff.

### Preparation of Equipment
Keep all droplet precaution supplies outside the patient’s room in a cart or an anteroom.

### Implementation
- Gather the necessary equipment and supplies.
- Put a **DROPLET PRECAUTIONS** sign at the patient’s door to notify anyone entering the room of the situation.15 [6
- Perform hand hygiene.6 [8 9 10 [11 12
- Put on a gown, if necessary, to comply with standard precautions. [12
- Just before entering the patient’s room, put on a mask and secure the ties or elastic band at the middle of the back of your head and neck. Adjust the flexible metal nose strip to fit your nose bridge so that it fits firmly but comfortably. Make sure the mask fits snugly to your face and below your chin.11 [13
- Put on gloves, if necessary, to comply with standard precautions. [12
- Confirm the patient’s identity using at least two patient identifiers.13
- Situate the patient in a single room with private toilet facilities and an anteroom if possible. If necessary, two patients with the same infection may share a room if approved by your facility’s infection preventionist.1
- Explain droplet precautions to the patient and family (if appropriate) according to their individual communication and learning needs to increase their understanding, allay their fears, and enhance cooperation.14
- If the patient is wearing a mask during transport to the room, remove the mask and discard it in an appropriate receptacle.1
• Instruct the patient to cover the nose and mouth with a facial tissue while coughing or sneezing and then to dispose of the tissue immediately and perform hand hygiene to prevent the spread of infectious droplets.1,6,8,9,10,11,12

• Provide the patient with a no-touch receptacle for tissue disposal, if available.1,2

• Remove and discard your gloves and gown (if worn) and your mask in the anteroom or, if an anteroom isn't available, at the patient's doorway just before leaving the room.1 To remove your mask, untie the strings or remove the elastic bands and dispose of the mask, handling it by the strings or elastic bands only, because the front of the mask is considered contaminated.1

• Perform hand hygiene.6,8,9,10,11,12

• Clean and disinfect reusable equipment according to the manufacturer's instructions to prevent the spread of infection.15,16,17

• Perform hand hygiene.6,8,9,10,11,12

• Document the procedure.18,19,20,21

Special Considerations

• Make sure all visitors wear masks when in close proximity with the patient (within 3’ [1 M]) and, if necessary, gowns and gloves.1

• If the patient must leave the room for essential procedures, make sure the patient wears a surgical mask over the nose and mouth, and instruct the patient to use respiratory hygiene and proper cough etiquette.1 Notify the receiving department or area of the patient's isolation precautions so that they'll maintain the precautions and can return the patient to the room promptly.

• It isn't necessary for health care workers to wear masks when transporting a patient on droplet precautions because the patient is wearing a mask.1

• Because pathogens in respiratory droplets don't remain infectious over long distances (they generally drop to the ground within 3’ [1 M]), special air handling and ventilation systems and an airborne-infection isolation room with negative airflow aren't necessary.1

• Perform hand hygiene, as indicated, during patient care.6,8,9,10,11,12

• Single-patient rooms are preferable for patients who require droplet precautions. However, when continued transmission is occurring after implementing routine infection control measures, creating patient cohorts and cohorting health care personnel may be beneficial. Consult with your infection preventionist before cohorting patients or staff members.1

Complications

Social isolation is a potential complication of droplet precautions.

Documentation

Record the need for droplet precautions in the nursing care plan and as otherwise indicated by your facility. Document initiation and maintenance of the precautions and the patient's compliance with droplet precautions. Record teaching you provided to the patient and family (if applicable), their understanding of that teaching, and any need for follow-up teaching. Note the date that you discontinued droplet precautions.

Related Procedures

• Contact precautions

• Isolation precautions, ambulatory care

Related Lexicomp and UpToDate Patient Teaching Handouts

• How to Wash Your Hands Properly

• Isolation Precautions
References
(Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions)


**Additional References**


### Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions

The following leveling system is from *Evidence-Based Practice in Nursing and Healthcare: A Guide to Best Practice* (2nd ed.) by Bernadette Mazurek Melnyk and Ellen Fineout-Overholt.

**Level I:** Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs)

**Level II:** Evidence obtained from well-designed RCTs

**Level III:** Evidence obtained from well-designed controlled trials without randomization

**Level IV:** Evidence from well-designed case-control and cohort studies

**Level V:** Evidence from systematic reviews of descriptive and qualitative studies

**Level VI:** Evidence from single descriptive or qualitative studies

**Level VII:** Evidence from the opinion of authorities and/or reports of expert committees