

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:** For information on Coronavirus disease (COVID-19), please refer to the latest recommendations from the CDC, located at https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html?CDC_AA_refVal=https%253A%252F%252Fwww.cdc.gov%252Fcoronavirus%252F2019-ncov%252Fhcp%252Finfection-control.html, when caring for a patient with known or suspected Coronavirus disease.◆

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

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*.◆

CONDITIONS REQUIRING DROPLET PRECAUTIONS		
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.		
Condition	Precautionary period	Special considerations (as applicable)
Adenovirus infection in infants and young children	<ul style="list-style-type: none"> Duration of illness 	<ul style="list-style-type: none"> Institute contact precautions in addition to droplet precautions. Prolonged viral shedding occurs in immunocompromised patients.
Diphtheria (pharyngeal)	<ul style="list-style-type: none"> Until the patient is no longer taking antibiotics and two cultures taken at least 24 hours apart are negative 	
Influenza (seasonal)	<ul style="list-style-type: none"> For 7 days after onset of signs and symptoms or until 24 hours after resolved fever and respiratory symptoms, whichever is longer.³ For the duration of illness in immunocompromised patients 	<ul style="list-style-type: none"> Viral shedding is prolonged in immunocompromised patients.

<i>Haemophilus influenzae</i> type b disease, including epiglottitis, meningitis, pneumonia, and sepsis	<ul style="list-style-type: none"> • Until 24 hours after initiation of effective therapy 	
<i>Neisseria meningitidis</i> disease, including meningitis, pneumonia, and sepsis	<ul style="list-style-type: none"> • Until 24 hours after initiation of effective therapy 	<ul style="list-style-type: none"> • 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.
Mumps	<ul style="list-style-type: none"> • For 5 days after the onset of swelling⁴ 	<ul style="list-style-type: none"> • Susceptible health care workers shouldn't provide care if immune caregivers are available.
<i>Mycoplasma pneumoniae</i> infection	<ul style="list-style-type: none"> • Duration of illness 	
Parvovirus B19 (erythema infectiosum)	<ul style="list-style-type: none"> • Duration of hospitalization when chronic disease occurs in immunocompromised patients • For 7 days in patients with transient aplastic crisis or red-cell crisis 	<ul style="list-style-type: none"> • Duration of precautions for immunosuppressed patients with persistently positive polymerase chain reaction is unknown, but transmission has occurred.
Pertussis (whooping cough)	<ul style="list-style-type: none"> • Until 5 days after initiation of effective therapy 	<ul style="list-style-type: none"> • Household contacts should receive postexposure prophylaxis. • Health care workers with prolonged exposure to respiratory secretions should receive postexposure prophylaxis.
Pneumonic plague	<ul style="list-style-type: none"> • Until 48 hours after initiation of effective therapy 	<ul style="list-style-type: none"> • Exposed health care workers should receive postexposure prophylactic antibiotics.
Rhinovirus	<ul style="list-style-type: none"> • Duration of illness 	<ul style="list-style-type: none"> • Institute contact precautions if contact with copious moist secretions is likely.
Rubella (German measles)	<ul style="list-style-type: none"> • Until 7 days after onset of rash 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Duration of illness plus 10 	<ul style="list-style-type: none"> • Airborne precautions are

	days after resolution of fever	preferable. <ul style="list-style-type: none"> • Institute contact precautions in addition to airborne or droplet precautions. • Wear eye protection. • Vigilant environmental disinfection is necessary.
Streptococcal group A disease, including pharyngitis (in infants and young children), pneumonia, serious invasive disease, and scarlet fever (in infants and young children)	<ul style="list-style-type: none"> • Until 24 hours after initiation of effective therapy 	<ul style="list-style-type: none"> • If the patient has skin lesions, institute contact precautions.
Viral hemorrhagic fevers (Ebola, Lassa, Marburg, and Crimean-Congo fever viruses)	<ul style="list-style-type: none"> • Duration of illness 	<ul style="list-style-type: none"> • 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.*^{1 5 6 7}
- Perform hand hygiene.^{6 8 9 10 11 12}
- Put on a gown, if necessary, *to comply with standard precautions.*^{1 7}
- 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.¹ 
- Put on gloves, if necessary, *to comply with standard precautions.*^{1 7}
- 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*.^{2 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.

This procedure has been reviewed by the Academy of Medical-Surgical Nurses.



■ Related Procedures

- [Contact precautions](#)
- [Isolation precautions, ambulatory care](#)

■ Related Lexicomp and UpToDate Patient Teaching Handouts

- [How to Wash Your Hands Properly](#)
- [Isolation Precautions](#)

References

[\(Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions\)](#)

1. Siegel, J. D., et al. (2007, revised 2018). "2007 guideline for isolation precautions: Preventing transmission of infectious agents in healthcare settings" [Online]. Accessed April 2019 via the Web at <https://www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines-H.pdf> (Level II)
2. Centers for Disease Control and Prevention. (2012). "Respiratory hygiene/cough etiquette in healthcare settings" [Online]. Accessed April 2019 via the Web at <https://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm> (Level VII)
3. Centers for Disease Control and Prevention. (2018). "Prevention strategies for seasonal influenza in healthcare settings" [Online]. Accessed April 2019 via the Web at <https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm> (Level VII)
4. Centers for Disease Control and Prevention. (2008). "Updated recommendations for isolation of persons with mumps" [Online]. Accessed April 2019 via the Web at <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5740a3.htm> (Level VII)
5. The Joint Commission. (2019). Standard IC.02.01.01. *Comprehensive accreditation manual for hospitals*. Oakbrook Terrace, IL: The Joint Commission. (Level VII)
6. Centers for Medicare and Medicaid Services, Department of Health and Human Services. (2018). Condition of participation: Infection control. 42 C.F.R. § 482.42.
7. Accreditation Association for Hospitals and Health Systems. (2018). Standard 07.01.10. *Healthcare Facilities Accreditation Program: Accreditation requirements for acute care hospitals*. Chicago, IL: Accreditation Association for Hospitals and Health Systems. (Level VII)
8. The Joint Commission. (2019). Standard NPSG.07.01.01. *Comprehensive accreditation manual for hospitals*. Oakbrook Terrace, IL: The Joint Commission. (Level VII)
9. Centers for Disease Control and Prevention. (2002). Guideline for hand hygiene in health-care settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR Recommendations and Reports*, 51(RR-16), 1–45. Accessed April 2019 via the Web at <https://www.cdc.gov/mmwr/pdf/rr/rr5116.pdf> (Level II)
10. World Health Organization. (2009). "WHO guidelines on hand hygiene in health care: First global patient safety challenge, clean care is safer care" [Online]. Accessed April 2019 via the Web at http://apps.who.int/iris/bitstream/10665/44102/1/9789241597906_eng.pdf (Level IV)
11. Accreditation Association for Hospitals and Health Systems. (2018). Standard 07.01.21. *Healthcare Facilities Accreditation Program: Accreditation requirements for acute care hospitals*. Chicago, IL: Accreditation Association for Hospitals and Health Systems. (Level VII)
12. DNV GL-Healthcare USA, Inc. (2019). IC.1.SR.1. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 18.2.*. Milford, OH: DNV GL-Healthcare USA, Inc. (Level VII)
13. The Joint Commission. (2019). Standard NPSG.01.01.01. *Comprehensive accreditation manual for hospitals*. Oakbrook Terrace, IL: The Joint Commission. (Level VII)
14. The Joint Commission. (2019). Standard PC.02.01.21. *Comprehensive accreditation manual for hospitals*. Oakbrook Terrace, IL: The Joint Commission. (Level VII)
15. Rutala, W. A., et al. (2008, revised 2017). "Guideline for disinfection and sterilization in healthcare facilities, 2008" [Online]. Accessed April 2019 via the Web at <https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfection-guidelines-H.pdf> (Level I)
16. The Joint Commission. (2019). Standard IC.02.02.01. *Comprehensive accreditation manual for hospitals*. Oakbrook Terrace, IL: The Joint Commission. (Level VII)
17. Accreditation Association for Hospitals and Health Systems. (2018). Standard 07.02.03. *Healthcare Facilities Accreditation Program: Accreditation requirements for acute care hospitals*. Chicago, IL: Accreditation Association for Hospitals and Health Systems. (Level VII)
18. The Joint Commission. (2019). Standard RC.01.03.01. *Comprehensive accreditation manual for hospitals*. Oakbrook Terrace, IL: The Joint Commission. (Level VII)
19. Centers for Medicare and Medicaid Services, Department of Health and Human Services. (2018). Condition of participation: Medical record services. 42 C.F.R. § 482.24(b).
20. Accreditation Association for Hospitals and Health Systems. (2018). Standard 10.00.03. *Healthcare Facilities Accreditation Program: Accreditation requirements for acute care hospitals*. Chicago, IL: Accreditation Association for Hospitals and Health Systems. (Level VII)
21. DNV GL-Healthcare USA, Inc. (2019). MR.2.SR.1. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 18.2.* Milford, OH: DNV GL-Healthcare USA, Inc. (Level VII)

■ Additional References

- Centers for Disease Control and Prevention. (2018). "Infection prevention and control recommendations for hospitalized patients under investigation (PUIs) for Ebola virus disease (EVD) in U.S. hospitals" [Online]. Accessed April 2019 via the Web at <https://www.cdc.gov/vhf/ebola/healthcare-us/hospitals/infection-control.html> (Level II)
- O'Keefe, L. C. (2016). Ebola update. *Workplace Health and Safety*, 64, 13–16.
- Rubin, L. G., et al. (2018). Reduction in nosocomial respiratory virus infections in a children's hospital associated with enhanced isolation precautions. *Infection Control and Hospital Epidemiology*, 39, 152–156. (Level VI)

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

Modified from Guyatt, G. & Rennie, D. (2002). Users' Guides to the Medical Literature. Chicago, IL: American Medical Association; Harris, R.P., Helfand, M., Woolf, S.H., Lohr, K.N., Mulrow, C.D., Teutsch, S.M., et al. (2001). Current Methods of the U.S. Preventive Services Task Force: A Review of the Process. American Journal of Preventive Medicine, 20, 21-35.