

## Droplet precautions, AU

Reviewed: November 15, 2019

### ■ Introduction

Droplet precautions prevent infectious pathogens from travelling from the respiratory tract of an infected person to the mucous membranes of a susceptible host.<sup>1 2</sup> These pathogens are carried in respiratory droplets, and are 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 or transmission-based precautions<sup>1 3</sup> should be in a single-patient room.<sup>1 2</sup> Anyone who has direct contact with the patient or who will be within 1 m of the patient should wear a surgical mask covering their nose and mouth.

When exposure to a highly virulent pathogen is likely, wearing a mask when within 2 to 3 m of the patient or on entering the patient's room offers further protection.<sup>1 2</sup>

◆ **Clinical alert:** Refer to the latest recommendations of the Australian Department of Health's *Information for Health Professionals*, including infection prevention and control principles and information for clinicians<sup>4</sup> 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, rhinorrhoea, or increased respiratory secretions) should cover their mouth and nose with a tissue when coughing and should dispose of soiled tissues promptly.<sup>5</sup>

The patient should wear a surgical mask, if tolerated, and perform hand hygiene after contact with respiratory secretions.<sup>1 2</sup> If possible, the patient should be separated by at least 1 m from other people in common waiting areas *to prevent spreading infection*.<sup>1 2</sup>

These actions can help prevent the spread of infectious pathogens until appropriate isolation precautions can be established.

◆ **Paediatric 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. <sup>1 2</sup> 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   | Duration of illness   | <ul style="list-style-type: none"> <li>Institute contact precautions in addition to droplet precautions</li> <li>Prolonged viral shedding occurs in immunocompromised patients</li> </ul> |
| Diphtheria (pharyngeal)  | Until off antibiotics and two cultures taken at least 24 hours apart are negative   |   |
| Influenza (seasonal)   | <ul style="list-style-type: none"> <li>For 7 days after onset of signs and symptoms or until 24 hours after resolved fever and respiratory symptoms, whichever is longer<sup>6</sup></li> </ul> | Viral shedding is prolonged in immunocompromised patients   |

|   |   |   |
|---|---|---|
|   | <ul style="list-style-type: none"> <li>For the duration of illness in immunocompromised patients</li> </ul>   |   |
| <i>Haemophilus influenzae</i> type b disease, including epiglottitis, meningitis, pneumonia, and sepsis | Until 24 hours after start of effective therapy   |   |
| <i>Neisseria meningitidis</i> disease, including meningitis, pneumonia, and sepsis                      | Until 24 hours after start of effective therapy   | <ul style="list-style-type: none"> <li>Household contacts should receive post-exposure prophylactic antibiotic therapy</li> <li>Health care workers exposed to respiratory secretions should receive post-exposure prophylactic antibiotic therapy</li> <li>A post-exposure vaccine may help control outbreaks</li> </ul> |
| Mumps   | For 5 days after onset of swelling  | Susceptible health care workers shouldn't provide care if immune carers are available   |
| <i>Mycoplasma pneumoniae</i> infection  | Duration of illness   |   |
| Parvovirus B19 (erythema infectiosum)   | <ul style="list-style-type: none"> <li>Duration of hospitalisation when chronic disease occurs in immunocompromised patients</li> <li>For 7 days in patients with transient aplastic crisis or red-cell crisis</li> </ul> | 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 start of effective therapy   | <ul style="list-style-type: none"> <li>Household contacts should receive post-exposure prophylaxis</li> <li>Health care workers with prolonged exposure to respiratory secretions should receive post-exposure prophylaxis</li> </ul>   |
| Pneumonic plague  | Until 48 hours after start of effective therapy   | Exposed health care workers should receive post-exposure 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  | <ul style="list-style-type: none"> <li>Susceptible health care workers shouldn't enter the room if immune carers are available</li> <li>Administer vaccine to non-pregnant susceptible individuals</li> </ul>   |

|   |  |   |
|---|--|---|
|   |  | within 3 days of exposure <ul style="list-style-type: none"> <li>Place exposed susceptible patients on droplet precautions</li> </ul>   |
| Severe acute respiratory syndrome (SARS)  | Duration of illness plus 10 days after resolution of fever | Airborne precautions are preferred <ul style="list-style-type: none"> <li>Institute contact precautions in addition to airborne or droplet precautions</li> <li>Wear eye protection</li> <li>Vigilant environmental disinfection is required</li> </ul>   |
| Streptococcal group A disease, including pharyngitis (in infants and young children), pneumonia, serious invasive wounds, and scarlet fever (in infants and young children) | Until 24 hours after start of effective therapy            | <ul style="list-style-type: none"> <li>If the patient has skin lesions, institute contact precautions</li> </ul>  |
| Viral haemorrhagic fevers (Ebola, Lassa, Marburg, and Crimean-Congo fever viruses)  | Duration of illness  | <ul style="list-style-type: none"> <li>Institute contact precautions</li> <li>Wear eye protection</li> <li>Handle waste appropriately</li> <li>Use an N95 (or higher) respirator mask when performing aerosol-generating procedures</li> <li>If you suspect Ebola, notify public health officials as required by your health care facility</li> </ul> |

### ■ Equipment

- Mask
- Tissues
- Droplet precautions sign. Standardised transmission-based precautions signage has been developed by the Australian Commission on Safety and Quality in Health Care.<sup>3 7</sup>
- Optional: gown, gloves, non-touch tissue disposal receptacle

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

### ■ Preparation of Equipment

Keep all droplet precaution supplies and linen disposal unit<sup>7</sup> 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*.<sup>1 2 3 7 8 9 10 11</sup> This is to ensure that staff and visitors do not enter without appropriate precautions.<sup>3</sup>
- Perform hand hygiene.<sup>1 7 9 10 11</sup>
- Put on a gown if necessary *to comply with standard precautions*.<sup>1 2 7</sup>

- 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.<sup>1 2</sup>
- Put on gloves if necessary *to comply with standard precautions*.<sup>1 2</sup>
- Confirm the patient's identity using at least three patient identifiers.<sup>12</sup>
- 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 health care facility's infection control specialist.<sup>1 2</sup>
- Explain droplet precautions to the patient and their family or carer according to their individual communication and learning needs *to increase their understanding, allay their fears, and enhance cooperation*.<sup>8</sup>
- If the patient is wearing a mask during transport to the room, remove the mask and discard it in the appropriate receptacle.<sup>1 2</sup>
- Instruct the patient to cover their nose and mouth with a facial tissue while coughing or sneezing, then to dispose of the tissue immediately<sup>5</sup> and perform hand hygiene *to prevent spreading infectious droplets*.<sup>1 9 10 11</sup>
- Provide the patient with a non-touch receptacle for tissue disposal if available.<sup>1 2 5</sup>
- 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.<sup>1 2</sup> To remove your mask, untie the strings or remove the elastic bands (bottom string/band first, then top string/band) and dispose of the mask, handling it by the strings or elastic bands only, *because the front of the mask is considered contaminated*.<sup>1 2</sup>
- Perform hand hygiene.<sup>1 9 10 11</sup>
- Clean and disinfect reusable equipment according to the manufacturer's instructions *to prevent spreading infection*.<sup>1 8</sup>
- Perform hand hygiene.<sup>1 9 10 11</sup>
- Document the procedure.<sup>8</sup>

## ■ Special Considerations

- Make sure all visitors wear masks when near the patient (within 1 m) and, if necessary, gowns and gloves.<sup>1 2</sup>
- If the patient must leave the room for essential procedures, make sure they wear a surgical mask over their nose and mouth, and instruct them to use respiratory hygiene and proper cough etiquette.<sup>1 2</sup> 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*.<sup>1 2</sup>
- *Because pathogens in respiratory droplets don't remain infectious over long distances (they generally drop to the ground within 1 m)*, special air handling, and ventilation systems and an airborne-infection isolation room with negative airflow aren't necessary.<sup>1 2</sup>
- Perform hand hygiene as indicated during patient care.<sup>1 9 10 11</sup>
- Single-patient rooms are preferred for patients who require droplet precautions. However, if transmission continues after routine infection control measures have been implemented, creating patient cohorts and cohorting health care personnel may be beneficial. Consult with your infection control specialist before cohorting patients or staff members.<sup>1 2</sup>

## ■ Complications

Social isolation is a potential complication of droplet precautions or transmission-based precautions.

## ■ Documentation

Record the need for droplet precautions in the nursing care plan and as otherwise indicated by your health care facility. Document the start and maintenance of the precautions and the patient's compliance with droplet precautions.

Record teaching provided to the patient and their family or carer, their understanding of that teaching, and whether they require follow-up teaching. Note the date you discontinued droplet precautions or transmission-based precautions.

This procedure has been endorsed by the Australian College of Nursing.



## ■ Related Procedures

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

## ■ References

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

1. Australian Commission on Safety and Quality in Health Care. (2019). *Australian guidelines for the prevention and control of infection in healthcare (2019)*. Retrieved November 2019 from <https://www.nhmrc.gov.au/file/14289/download?token=QNDTcrjY> (Level V)
2. Hand Hygiene Australia. (2017). *Appropriate glove use*. Retrieved November 2019 from <https://www.hha.org.au/hand-hygiene/what-is-hand-hygiene/glove-use> (Level V)
3. health.vic, Victorian State Government. (n.d.). *Infection control—Standard and transmission-based precautions*. Retrieved November 2019 from <https://www2.health.vic.gov.au/public-health/infectious-diseases/infection-control-guidelines/standard-additional-precautions>
4. Australian Government Department of Health. (2018). *Ebola. Information for health professionals*. Retrieved November 2019 from <http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-ebola-Information-for-Health-Professionals>
5. Centers for Disease Control and Prevention. (2012). *Respiratory hygiene/cough etiquette in healthcare settings*. Retrieved November 2019 from <https://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm> (Level VII)
6. Centers for Disease Control and Prevention. (2016). *Prevention strategies for seasonal influenza in healthcare settings*. Retrieved November 2019 from <https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm> (Level VII)
7. Australian Commission on Safety and Quality in Health Care. (n.d.). *Precaution signage*. Retrieved November 2019 from <https://www.safetyandquality.gov.au/wp-content/uploads/2012/02/Portrait-NSW-Standardised-Infection-Control-and-Prevention-Signs.pdf>
8. Australian Commission on Safety and Quality in Health Care. (2017). *National safety and quality health service standards* (2nd ed.). Retrieved November 2019 from <https://www.safetyandquality.gov.au/standards/nsqhs-standards> (Level V)
9. Hand Hygiene Australia. (2017). *5 Moments for hand hygiene*. Retrieved November 2019 from <https://www.hha.org.au/hand-hygiene/5-moments-for-hand-hygiene> (Level V)
10. Hand Hygiene Australia. (2017). *What is hand hygiene?* Retrieved November 2019 from <https://www.hha.org.au/hand-hygiene/what-is-hand-hygiene> (Level V)
11. World Health Organization. (2009). *WHO guidelines on hand hygiene in health care: First global patient safety challenge, clean care is safer care*. Retrieved November 2019 from [http://apps.who.int/iris/bitstream/10665/44102/9789241597906\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/44102/9789241597906_eng.pdf) (Level IV)
12. Australian Commission on Safety and Quality in Health Care. (2017). Communicating for safety standard. In *National safety and quality health service standards* (2nd ed.). Retrieved November 2019 from <https://www.safetyandquality.gov.au/standards/nsqhs-standards>

## ■ Additional References

- Centers for Disease Control and Prevention. (2015). *Infection prevention and control recommendations for hospitalized patients under investigation (PUIs) for Ebola virus disease (EVD) in U.S. hospitals*. Retrieved November 2019 from <https://www.cdc.gov/vhf/ebola/healthcare-us/hospitals/infection-control.html> (Level II)
- Crisp, J., et al. (2016). *Potter & Perry's fundamentals of nursing* (5th ANZ ed.). Sydney, NSW: Elsevier Australia.
- Hill, R., et al. (2017). *Fundamentals of nursing & midwifery—A person-centred approach* (3rd ANZ ed.). Sydney, NSW: Wolters Kluwer.
- Koziar, B., et al. (2014). *Koziar and Erb's fundamentals of nursing volumes 1–3* (3rd ANZ ed.). Melbourne, Vic: Pearson Australia.
- O'Keefe, L. C. (2016). Ebola update. *Workplace Health & Safety*, 64, 13–16. Retrieved November 2019 from <http://journals.sagepub.com/doi/pdf/10.1177/2165079915607496>

[Abstract](#) | [Complete Reference](#)**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* (2<sup>nd</sup> 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., Hefland, 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.*

