

Isolation precautions, ambulatory care

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■ Introduction

Isolation precautions are important in the ambulatory care setting to reduce the risk of infection transmission. Research estimates that more than 75% of all health care is currently delivered in outpatient settings.^{1 2} Traditionally, ambulatory care settings lacked the infrastructure and resources necessary to promote infection prevention and surveillance activities, leading to outbreaks of preventable infectious disease.^{1 2 3}

The Centers for Disease Control and Prevention (CDC), the World Health Organization, and the Healthcare Infection Control Practices Advisory Committee developed a basic model for isolation precautions and infection control within ambulatory care settings. Their model recommends that ambulatory care facilities have a surveillance method for infectious pathogens (depending on facility type), an outbreak control plan, standard isolation procedures, proper hand hygiene processes, employee health programs, and a process for reporting communicable diseases to the local health department.^{2 4}

Standard precautions are the minimum infection prevention practices that apply to patient care, regardless of the suspected or confirmed infection status of the patient in any health care setting. These precautions protect health care workers and prevent health care workers from spreading infections to patients.² Standard precautions include:

- hand hygiene
- personal protective equipment use
- safe injection practices
- safe handling of potentially contaminated equipment or surfaces in the patient's environment
- respiratory hygiene and cough etiquette^{1 2}
- patient placement.

Each ambulatory care facility should evaluate the services it provides to determine its specific infection prevention needs to ensure that it has sufficient and adequate personal protective equipment available for staff to comply with standard precautions. A resource person should be available to manage the facility's infection prevention program.²

Many ambulatory care settings aren't designed to allow implementation of all of the recommended isolation practices and other transmission-based precautions for acute care settings. However, facilities should have processes in place for rapid identification of certain syndromes that routinely occur in ambulatory settings—such as fever, febrile respiratory illness, diarrhea, and rash—at the initial point of entry to the ambulatory care facility to prevent infection transmission. When possible, you should place a potentially infectious patient into a single-patient room and, if necessary, transfer the patient to an acute care facility.²

◆ **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.◆

■ Equipment

- Gloves
- Gowns
- Masks
- Respirator (disposable N95 or other respirator)
- Mask with face shield or goggles
- Soap and warm water or alcohol-based hand rub
- Environmental Protection Agency (EPA)—registered disinfectant
- Optional: tissues, no-touch tissue disposal receptacle, single-patient-use equipment

■ Preparation of Equipment

Inspect all equipment and supplies; if anything has compromised integrity or a defect, remove it from patient use, label it as defective, and report the defect, as directed by your facility.

■ Implementation

Adhering to standard precautions

- Initiate standard precautions when caring for any patient regardless of whether you know or suspect that the patient is infected with a pathogen.²
- Perform hand hygiene before contact with the patient; before performing a procedure that requires clean or sterile technique; after contact with the patient or objects in the patient's immediate vicinity; after contact with blood, body fluids, or contaminated surfaces; when you're moving your hands from a contaminated-body site to a clean body site during patient care; and immediately after removing personal protective equipment.^{2 5 6 7 8 9 10}
 - Wash your hands immediately with soap and warm water if they become contaminated with blood or body fluids, such as excretions, secretions, and drainage.
 - If your hands aren't visibly soiled, you may use an alcohol-based hand rub for routine decontamination.² (See the "[Hand hygiene, ambulatory care](#)" procedure.)
- Wear gloves if contact with blood, tissue, body fluids, mucous membranes, broken skin, or contaminated surfaces or objects is likely. Don't wear the same pair of gloves for the care of more than one patient. Don't wash gloves for reuse.² (See the "[Personal protective equipment \[PPE\], putting on, ambulatory care](#)" and the "[Personal protective equipment \[PPE\], removal, ambulatory care](#)" procedures.)
- Use a gown to protect your skin and clothing during procedures and activities for which you anticipate contact with blood or body fluids. Don't wear the same gown for the care of more than one patient.²
- Wear mouth, nose, and eye protection during procedures that are likely to generate splashes, sprays of blood, or other body fluids.²
- Wear a face mask during insertion of a catheter or injection of material into the epidural or subdural space.²
- Use sterile no-touch technique when preparing and administering medications.²
- Disinfect the access diaphragm of a medication vial with alcohol before inserting a device into the vial.²
- Never administer medications from the same syringe to multiple patients, even after changing the needle or administering through an intervening length of IV tubing.²
- Don't reuse a syringe to enter a medication vial or solution.²

◆ **Clinical alert:** Dedicate multidose medication vials to one patient whenever possible *to reduce the risk of bloodborne pathogen transmission and infection*. You reduce infection transmission risk when you dedicate a multidose vial to one patient. If you must use multidose vials for more than one patient, you should keep and access them in a dedicated medication preparation area, away from immediate patient treatment areas *to prevent inadvertent contamination of the vial through direct or indirect contact with potentially contaminated surfaces or equipment that could lead to infections in subsequent patients*.^{11 12 13} ◆

- Never administer medications from single-dose or single-use vials, ampules, or bags or bottles of IV solution to more than one patient.²
- Don't use IV administration sets for more than one patient.²
- Dedicate multidose vials to a single patient whenever possible. If you must use a multidose vial for more than one patient, restrict it to a centralized medication area. Don't take a multidose vial into an immediate patient treatment area.²
- Discard sharps at the point of use in a puncture-resistant sharps container.²
- Discard equipment designed for single-patient use.^{2 14}
- Clean and disinfect surfaces and equipment using EPA-registered disinfectants; follow the equipment and disinfectant manufacturers' instructions *to ensure adequate disinfection and avoid equipment damage*.^{2 15 16} Ensure cleaning and reprocessing (disinfection or sterilization) of reusable medical devices before use on another patient.^{2 14 17} (See the "[Disinfection, noncritical patient care equipment, ambulatory care](#)" and "[Disinfection, semicritical patient care equipment, ambulatory care](#)" and "[Sterilization of instruments using an autoclave, ambulatory care](#)" procedures.)
- Beginning at the point of entry to the facility and throughout the duration of the visit, implement measures to contain respiratory secretions in a patient (and anyone who accompanies the patient) who has signs and symptoms of respiratory infection. (See the "[Respiratory hygiene and cough etiquette, ambulatory care](#)" procedure.)²

Identifying potentially infectious patients

- Be alert for any patient arriving to the facility with signs and symptoms of active infection—for example, diarrhea, rash, respiratory symptoms, and draining wounds or skin lesions.¹⁴

- Follow transmission-based isolation precautions in addition to standard precautions, according to the route of transmission for the known or suspected pathogen.¹⁴
- If the patient calls before coming to the facility, take steps to reduce the risk of infection transmission:
 - If possible, schedule the patient to arrive at a time when the facility isn't crowded.¹⁴
 - If the visit isn't urgent, encourage the patient to reschedule the appointment until symptoms resolve.¹⁴
 - Instruct the registration staff to place the patient in a private examination room, if possible, with the door closed.¹⁴

Adhering to contact precautions in addition to standard precautions

- Initiate contact precautions for a patient with stool incontinence; infection with norovirus, parainfluenza virus, metapneumovirus, respiratory syncytial, rotavirus, or *Clostridioides difficile*; a draining wound; uncontrolled secretions; a pressure injury; an ostomy tube or a bag draining body fluids; or generalized rash or exanthem.¹⁴
- If the patient has stool incontinence, a draining wound or skin lesion that you can't cover, or uncontrolled secretions, place the patient in an examination room as soon as possible.¹⁴
- Perform hand hygiene and put on gloves before touching the patient.^{5 6 7 8 9 14}
- Wear gloves when touching the patient's belongings or anything in the patient's environment.¹⁴
- Wear a gown if you anticipate substantial contact with the patient or the patient's environment.¹⁴
- Perform hand hygiene using soap and water when your hands are visibly soiled with blood or body fluids and after caring for a patient with known or suspected infectious diarrhea (for example, from norovirus, rotavirus, or *C. difficile* infection).⁵
- Instruct a patient with known or suspected infectious diarrhea to use a separate bathroom if available. Clean and disinfect the bathroom before another patient uses it.¹⁴

Adhering to droplet precautions in addition to standard precautions

- Initiate droplet precautions for a patient with known or suspected infection with *Bordetella pertussis*, *Neisseria meningitides*, and group A *Streptococcus* or those transmitted by the droplet route, such as respiratory viruses (including influenza, adenovirus, and rhinovirus).⁵
- As soon as possible, place the patient in an examination room with the door closed. Prioritize a patient with an excessive cough with sputum production. Alternatively, if an examination room isn't available, give the patient a mask and ask the patient to remain in a separate area of the waiting room, as far away from other patients as possible, until an examination room is available.¹⁴
- For close contact with the patient, put on a mask before entering the examination room.¹⁴
- Wear a gown, gloves, and goggles (or a mask with a face shield) if substantial spraying of respiratory fluids is likely.¹⁴
- Perform hand hygiene before and after touching the patient and after contact with respiratory secretions and objects in the patient's environment. Use soap and water to perform hand hygiene when hands are visibly soiled.^{5 6 7 8 9 14}
- Teach the patient about practicing respiratory hygiene and cough etiquette.¹⁴
- Instruct the patient to wear a mask when exiting the examination room and to avoid coming in close contact with other patients.¹⁴

Adhering to airborne precautions in addition to standard precautions

- Initiate airborne precautions for a patient with known or suspected infection transmitted by the airborne route, such as tuberculosis, measles, varicella zoster (until lesions are crusted over), localized herpes zoster when immunocompromised, and disseminated herpes zoster (until lesions are crusted over).¹⁴
- Have the patient enter the facility through a separate entrance, if available, to avoid the reception and registration area.¹⁴
- If available, place the patient in an airborne infection isolation room (AIIR). Alternatively, if an AIIR isn't available, instruct the patient to put on a mask and place the patient immediately in an examination room. Change the patient's mask if it becomes wet.¹⁴
- Initiate measures to transfer the patient to a facility that has the necessary infection control staff, equipment, and supplies to care for the patient properly.¹⁴

- Wear a fit-tested N-95 or higher disposable respirator if available; put on the respirator before entering the examination room and remove it after exiting the room.^{14 18}
- Put on a gown, gloves, and goggles or a mask with a face shield if substantial spraying of respiratory secretions is likely.¹⁴
- Perform hand hygiene before and after touching the patient and after contact with respiratory secretions or body fluids and objects in the patient's environment. Use soap and water to perform hand hygiene when hands are visibly soiled.^{5 6 7 8 9 14}
- Teach the patient about practicing respiratory hygiene and cough etiquette.¹⁴
- Instruct the patient to wear a mask when exiting the examination room and to avoid coming in close contact with other patients.¹⁴
- After the patient leaves the examination room, keep the room vacant for about an hour; the wait time may vary depending on the ventilation rate of the room. If staff needs to enter the room during the wait time, have them wear respiratory protection.¹⁴

Completing the procedure

- Report notifiable conditions to the health department, following your facility's processes.²
- Clean and disinfect the examination room. (See the "[Examination room cleaning and disinfection, ambulatory care](#)" procedure).²
- Perform hand hygiene.^{5 6 7 8 9 14}
- Document the procedure.^{19 20 21}

Special Considerations

- If other immune health care personnel are available, restrict susceptible health care personnel from entering the room of a patient who you know or suspect to have measles, chickenpox, disseminated zoster, or smallpox.²²
- Limit the number of individuals who enter a patient's examination room *to reduce the risk of pathogen transmission*.²³
- The Joint Commission issued a sentinel event alert concerning the transmission of pathogens related to the misuse of vials that have caused viral and bacterial infections, including hepatitis B, hepatitis C, meningitis, and epidural abscesses. These infections have been attributed to the reuse of single-dose vials that typically don't contain preservatives, re-entering multidose vials with used syringes and needles, and using multidose vials for multiple patients. To prevent these infections, follow evidence-based best practices, such as disinfecting the vial's rubber stopper before piercing, using single-dose vials only once and then discarding the vial, dedicating multidose vials to a single patient, and using a new syringe and needle when re-entering a multidose vial. Assign the appropriate "beyond-use" date when first entering a multidose vial and store multidose vials as directed by your facility and according to the manufacturer's instructions.¹³

Complications

Failure to adhere to proper infection prevention measures can result in disease transmission.

Documentation

Document the patient's presenting signs and symptoms, isolation precautions you followed and, if necessary, measures you took to report the notifiable condition to the health department. Record teaching provided to the patient and family (if applicable), their understanding of that teaching, and any need for follow-up teaching.

This procedure has been co-developed and reviewed by the American Academy of Ambulatory Care Nursing.



Related Procedures

- [Droplet precautions](#)

References

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

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■ Additional References

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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.