Isolation Precautions

Isolation precautions create barriers between microbes and patients, staff, and equipment to prevent the spread of infection in the health care setting.

Standard Precautions

Standard precautions are based on the principle that all blood, body fluids, secretions, excretions except sweat, non-intact skin, and mucous membranes may contain transmissible infectious agents. Standard precautions are the minimal protection that should be used to care for all patients at all times to protect healthcare workers and to prevent spread from healthcare worker to patient. They apply to all patients, regardless of suspected or confirmed infection status in all healthcare settings.

Hand Hygiene

- This is the most important step in preventing infection transmission.
- Either soap and water or alcohol-based hand disinfection (AHD) may be used.
- Perform after touching blood, body fluids, secretions, excretions, and contaminated items.
- Perform immediately after removing gloves and between patient contact.
- Perform upon entry and exit from a patient room.
- Keep nails short, clean and free from artificial nails.

Personal Protective Equipment (PPE)

- Gloves: for touching blood, body fluids, secretions, excretions, contaminated items, mucous membranes, and non-intact skin
- Gown: during procedures and patient care activities with anticipated exposure of skin/clothes to body fluids, secretions, excretions
- Mask/eye protection: during procedures and patient care activities with anticipated splashes or sprays of blood, body fluids, or secretions

Safe Injection

- Needles and syringes are single-use devices.
- Limit use of multi-dose vials, and dedicate to a single patient, when possible.
- Dispose of needles and sharp instruments in impervious containers.

Safe Handling

- Safely handle potentially contaminated equipment or surfaces in the patient environment.
- Ensure environmental cleaning and disinfection, per facility policy.

Respiratory Hygiene

- Dispose of tissues in no-touch receptacles.
- Perform hand hygiene after soiling hands with respiratory secretions.
- Use spatial separation (ideally 3 feet) if possible in common waiting areas.
- During times of high prevalence of community spread of respiratory infectons, offer masks at the entrance of the medical facility, especially to symptomatic patients and visitors.
- Wear mask when caring for patients with respiratory secrections and when performing a sterile procedure.
- Patients with respiratory secretions should wear a mask when leaving their patient room.

Transmission-based Precautions

Transmission based precautions provide additional infection control measures based on disease-specific recommendations and should always be used in addition to standard precautions.

Contact Precautions

Contact precautions prevent transmission of infectious organisms spread by direct or indirect contact with the patient or the patient's environment. Contact precautions are recommended when the presence of excessive wound drainage, fecal incontinence, or other dishcarge from the body suggest an increased risk for environmental contamination and transmission of infection.

Contact precautions include:

- Private room or cohort, ensuring rooms are frequently cleaned and disinfected at least daily or prior to use by another patient, focusing on frequently-touched surfaces and equipment in the immediate vicinity of the patient
- Clean, nonsterile gloves when entering the room; remove before exiting
- Clean, nonsterile gown when entering the room if substantial contact with the patient or potentially contaminated areas in the patient's environment is anticipated; remove before exiting
- Limit transport to essential purposes and ensure precautions are taken to minimize contamination of environmental surfaces and equipment.
- When possible, dedicate the use of noncritical patient care equipment to a single patient and avoid sharing between patients.
- Indications:
  - MRSA (mask if respiratory infection)
  - VRE
  - Adenovirus*
  - Diarrhea
  - C. difficile
  - Rotavirus
  - Herpes simplex (until lesions are dried and healed)
  - Coxsackie*
  - Parainfluenza (mask if coughing)
  - E. coli*
  - Enterovirus*
  - Salmonella*
  - Shigella*
  - Hepatitis A and E*
  - Herpes zoster (shingles, localized)
  - RSV (mask if productive cough)
  - Head lice
  - Scabies
  - Poliomyelitis
  - Varicella zoster (chicken pox; symptomatic, until all lesions crusted and dried)
  - Norovirus (for a minimum of 48 hours after resolution of symptoms
  - Human metapneumovirus

**if incontinent or diapered, or to control institutional outbreaks*

Droplet Precautions

The goal of droplet precautions is to prevent transmission of infectious organisms spread by droplets (greater than 5 microns) through close respiratory or mucous membrane contact with respiratory secretions via coughing, sneezing, talking, or droplet-inducing procedures.

Droplet precautions include:

- Private room or cohort
- Special air flow is not needed and door may remain open.
- Wear mask (surgical or isolation) if working within 3 feet of the patient (some faciliites require

mask for all entries into the room).
- Droplet mask on patient when leaving room, if tolerated
- Limit transport to essential purposes only.
- Follow respiratory hygiene/cough etiquette.
- Gown and gloves as per standard precautions and facility policy
- Indications include known or suspected infections of the following organisms:
  - Pertussis
  - Influenza virus (seasonal)
  - MRSA (respiratory infection)
  - Neisseria meningitides (suspected or confirmed)
  - Rhinovirus
  - Streptococcus group A
  - Bacterial meningitides (for 24 hours after effective antibiotic therapy)
  - Mumps
  - Rubella
  - Adenovirus (PNA)

Airborne Precautions

Airborne precautions prevent transmission of infectious disease that are spread by airborne droplets (less than or equal to 5 microns) that remain infectious and suspended in air for long periods of time over long distances and can be widely dispersed by air currents.

Airborne precautions include:

- Private room with monitored negative pressure ventilation of 6-12 air exchanges per hour; airborne infection isolation room (AIIR) preferred
- Dishcarge of air to the outside or HEPA-filtered before recirculation
- Door and windows must be kept closed at all times.
- Respiratory protection (N-95 mask) for susceptible persons must be worn prior to entering room and removed after leaving room.
- Droplet mask on patient when leaving room if tolerated; follow respiratory hygiene/cough etiquette
- Limit transport to essential purposes only.
- If possible, non-immune helathcare workers should not care for patients with vaccine-preventable airborne diseases.
- Indications include known or suspected infections of the following organisms:
  - Measles
  - Varicella zoster (chicken pox)
  - Varicella zoster (herpes, disseminated)

Additional recommendations include:

- Airborne & contact precautions for tuberculosis and avian influenza
- Airborne, contact, and droplet precautions for SARS, including COVID-19 infection

References:

Centers for Disease Control and Prevention (CDC), National Center for Immunization and Respiratory Diseases, (2021, May 13). Prevention Strategies for Seasonal Influenza in Healthcare Settings: Guidelines and Recommendations. https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm#

Nulens, E. (2018). Isolation of communicable diseases. In Bearman, G (Ed.) Guide to Infection Control in the Healthcare Setting. International Society for Infectious Diseases. https://isid.org/wp-content/uploads/2019/06/ISID_GUIDE_ISOLATION_OF_COMMUNICABLE_DISEASES.pdf

Siegel, J.D., Rhinehart, E., Jackson, M., Chiarello, L., & the Healthcare Infection Control Practices Advisory Committee, (2007). Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007. https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html