

Guidelines to Droplet Precautions

REFERENCE

CDC

- Guidelines for isolation precautions: preventing transmission of infectious agents in healthcare settings (2007):
 - Part I: Review of scientific data regarding transmission of infectious agents in healthcare settings
 - Part II: Fundamental Elements needed to prevent transmission of infectious agents
 - Part III: Precautions to prevent transmission of infectious agents
 - Isolation Precautions
 - Transmission- Based precautions
 - Type and Duration of Precautions

DEFINITION

Droplet transmission is a form of transmission in which respiratory droplets carrying infectious pathogens transmit infection when they travel directly from the respiratory tract of the infectious individual to susceptible mucosal surfaces of the recipient, generally over short distances, necessitating facial protection.

Respiratory droplets are generated when an infected person coughs, sneezes, or talks or during procedures such as suctioning, endotracheal intubation, cough induction by chest physiotherapy, and cardiopulmonary intubation.

Studies have shown that the nasal mucosa, conjunctivae and less frequently the mouth, are susceptible portals of entry for respiratory viruses . The maximum distance for droplet transmission is currently unresolved, although pathogens transmitted by the droplet route have not been transmitted through the air over long distances, in contrast to the airborne pathogens.

Historically, the area of defined risk has been a distance of ≤ 3 feet around the patient and is based on epidemiologic and simulated studies of selected infections. However, it is likely that distance droplets travel depends on the velocity and mechanism by which respiratory droplets are propelled from the source, the density of respiratory secretions, environmental factors such as temperature and humidity, and the ability of the pathogen to maintain infectivity over that distance.

Based on these considerations, it may be prudent to don a mask when within 6 to 10 feet of the patient or upon entry into the patient's room, especially when exposure to emerging or highly virulent pathogens is likely

List of CDC reported droplet based transmission	
<ul style="list-style-type: none"> • Diphteria (pharyngeal), • haemophilus influenza type B – epiglottis pneumonia, meningitis • influenza, • meningitis (neisseria meningitides), • meningococcal disease (pneumonia) • mumps • mycoplasma (pneumonia) • parvovirus B19 (erythema infectiosum) • pertussis (whooping cough) 	<ul style="list-style-type: none"> • plague (yersinia pestis – pneumonia) • adenovirus - pneumonia • streptococcus group A - pneumonia , scarlet fever • rhinovirus • rubella • Severe acute respiratory syndrome (SARS) • viral hemorrhagic fevers due to lassa, ebola, marburg, Crimean-congo fever viruses

FOR STAFF

GENERAL GUIDELINES

- A. Pre-visit – communicate with your patient prior to visiting
 - a. Schedule your appointments by phone
 - b. Collaborate with patient/ patient caregiver and discuss the following
 - i. What symptoms patient may be experiencing? Any emergent actions required?
 - ii. Household members which may be affected?
 - iii. Discussing relevant infection control expectations
 - c. Implement source control
 - i. Educate on the importance regarding the following items:
 1. Respiratory hygiene/ cough etiquette
 - a. Covering mouth/ nose with tissue when coughing and prompt disposal of used tissues, using surgical masks on the coughing person when tolerated and appropriate
 2. Hand hygiene and vector control
 - ii. Environmental Control
 1. Have affected patient in own room, possible cohorting for same symptom patients (avoid for immune-compromised patients)
 - a. Prioritize members who have excessive cough and sputum production in single room
 2. Spatial separation of ≥ 3 feet, a physical barrier (e.g. privacy curtain) may work for multi-bed rooms
 3. Tissues and no-touch receptacles for disposal of tissues
 4. Clean high touch surfaces with EPA recommended disinfectants
 - a. Frequency or intensity of cleaning may need to change based on the patient’s level of hygiene and the degree of environmental contamination
- B. Managing the visit
 - a. Proper personal protective equipment

- i. Follow standard precautions coupled with donning a face mask prior to entry into home (respirator is not necessary)
 1. CDC has no recommendation for routinely wearing eye protection (e.g., goggle or face shield), in addition to a mask, for close contact with patients who require Droplet Precautions.
 - a. However, staff may utilize gloves, gown, facial/ eye protection predicated on the respiratory droplet transmission generated by patient who is coughing, sneezing, or talking.
 2. Use of a particulate respiratory is recommended during aerosol-generating procedures when the aerosol is likely to contain SARS-CoV, or avian or pandemic influenza viruses
 - a. Aerosol-generating procedures include “bronchoscopy, endotracheal intubation, and open suctioning of the respiratory tract, have been associated with transmission of infectious agents to healthcare personnel”
 - b. Protection of the eyes, nose and mouth, in addition to gown and gloves, is recommended during performance of these procedures in accordance with Standard Precautions
 3. Clean re-use items according to manufacturer instructions and dispose of single-use items appropriately
- b. Follow CDC protocol for when/ how to don/ doff of PPE
 - i. Change protective attire and perform hand hygiene between contact with patients in the same room, regardless of whether one patient or both patients are on droplet precautions
- c. Follow proper hand hygiene technique and using proper clinical judgment of when/ where to wash
- d. Offer a mask to symptomatic patient if available
- e. Utilize proper nursing clean bag technique
- f. Discontinue Droplet Precautions after signs and symptoms have resolved or according to pathogen-specific recommendations per CDC or at discretion of medical doctor.
- g. Notify appropriate entities if transport or emergency medical services are required for the patient
 - i. Patients on Droplet Precautions who must be transported outside of the room should wear a mask if tolerated and follow Respiratory Hygiene/Cough Etiquette.