**Transmission Based Precautions Policy and Procedure:**

**Overview**

**Contact Precautions**

**Droplet Precautions**

**Airborne Precautions**

**Transmission-Based Precautions Policy and Procedure**

**Policy**

It is the policy of this facility to initiate Transmission-based Precautions (Contact, Droplet, and/or Airborne) in addition to Standard Precautions when resident a resident is:

* confirmed positive with an infectious and/or communicable disease,
* if colonized with certain infectious pathogens, or
* the resident presents with symptoms consistent with a communicable disease based upon the potential for exposure, route of transmission and infectious organism/pathogen (or clinical syndrome if an organism has not yet been identified) to prevent transmission of infection.

Transmission-based precautions will be the least restrictive possible, for the least amount of time, based upon the clinical situation

**Definitions**

“**Transmission-based precautions (a.k.a. “Isolation Precautions”)”** refer to actions (precautions) implemented in addition to standard precautions that are based upon the means of transmission (airborne, contact, and droplet) in order to prevent or control infections. NOTE: Although the regulatory language refers to “isolation,” the nomenclature widely accepted by the healthcare community and used in this guidance will refer to “transmission-based precautions” instead of “isolation” as these terms can be used interchangeably.”1

“**Contact precautions**” refer to measures that are intended to prevent transmission of infectious agents which are spread by direct or indirect contact with the resident or the resident’s environment.4”1

“**Droplet precautions”** refer to actions designed to reduce/prevent the transmission of pathogens spread through close respiratory or mucous membrane contact with respiratory secretions.”1

“**Airborne precautions**” refer to actions taken to prevent or minimize the transmission of infectious agents/organisms that remain infectious over long distances when suspended in the air. These infectious particles can remain suspended in the air for prolonged periods of time and can be carried on normal air currents in a room or beyond, to adjacent spaces or areas receiving exhaust air.1”1

**Overview**

Several routes transmit microorganisms/diseases in the facility when standard precautions alone do not interrupt the transmission. There are three categories of Transmission-Based Precautions based upon the main routes of transmission in typical Healthcare Associated Infections (HAI) and there may be instances in which more than one category is required

* Contact Precautions
* Droplet Precautions
* Airborne Precautions

In nursing homes, it is appropriate to individualize decisions regarding resident placement on a case-by-case basis, (shared or private), balancing infection risks with the need for more than one occupant in a room, the presence of risk factors that increase the likelihood of transmission, and the potential for adverse psychological impact on the infected or colonized resident.

It is essential both to communicate transmission-based precautions to all health care employees and for employees to follow the requirements. Pertinent signage (i.e., isolation precautions) and verbal reporting between staff can enhance compliance with transmission-based precautions to help minimize the transmission of infections within the facility.

When used appropriately, transmission-based precautions are not to be considered involuntary seclusion. The facility will identify the type of the transmission-based precautions required and the anticipated duration, dependent upon the infectious agent or organism involved. Transmission-based precautions are maintained for as long as necessary to prevent the transmission of infection.

Residents on transmission-based precautions should remain in their rooms except for medically necessary care. It is appropriate to use the least restrictive approach possible that adequately protects the resident and others. Maintaining isolation longer than necessary may adversely affect psychosocial well-being.

The facility should document in the medical record the rationale for the selected transmission-based precautions and when the resident is no longer a risk for transmission of the pathogen, the resident should be removed from transmission-based precautions to avoid unnecessary involuntary seclusion.

It is important for the interdisciplinary team to proactively implement individualized measures to minimize potential psychosocial negative effects of isolation.

**Implementation of Transmission-based Precautions**

1. Identify reason for and type of Transmission-based Precautions
2. Determine placement. If a private room is not available, identify options:
	1. Cohort with a resident with the same pathogen
	2. Evaluate roommate for limited risk factors based upon the pathogen and mode of transmission
		1. Immunocompromised
		2. Indwelling or invasive devices
		3. Open wounds
3. Identify the type of Transmission-based Precautions and the PPE required to be used
4. Conspicuously place signage outside the resident room that outlines the specific PPE to be used. Signage can either indicate the CDC category of Transmission-based Precautions and should provide instructions to see the nurse prior to entering
	1. Signage must comply with resident’s rights to confidentiality and privacy
5. Provide PPE near the entrance to the resident’s room
6. Provide dedicated or disposable resident-care equipment when possible
	1. If shared between residents, it must be cleaned and disinfected in accordance with the manufacturer’s instructions and appropriate EPA-registered disinfectant
7. Cleaning and disinfection will be conducted on objects and environmental surfaces that are frequently touched with the appropriate EPS-registered disinfectant daily and when visibly soiled
8. Education will be provided to residents and resident representatives regarding Transmission-based Precautions
* Type and Duration of Precautions Recommended for Selected Infections and Conditions (Appendix A) from Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007) should be downloaded and may be inserted here. <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html>
* Management of Multidrug-Resistant Organism In Healthcare Settings, 2006 should be downloaded and may be inserted here. <https://www.cdc.gov/infectioncontrol/pdf/guidelines/mdro-guidelines.pdf>

**Contact Precautions Policy**

**Policy**

It is the policy of this facility that in addition to Standard Precautions, Contact Precautions will be used to prevent the healthcare acquired transmission of pathogens that can be spread by direct resident contact (hand or skin-to-skin contact that occurs when performing resident-care) or by indirect contact (touching) with environmental surfaces or contaminated resident care equipment and requires gown and gloves to be put on before or upon entering the resident room. While a private room is preferred for residents in contact precautions, they may be cohorted with another resident with the same infection or placed with a low-risk roommate.

**Overview**

“Contact precautions are intended to prevent transmission of pathogens that are spread by direct (e.g., person-to-person) or indirect contact with the resident or environment (e.g., C. difficile, norovirus, scabies), and requires the use of appropriate PPE, including a gown and gloves before or upon entering (i.e., before making contact with the resident or resident’s environment) the room or cubicle. Prior to leaving the resident’s room or cubicle, the PPE is removed, and hand hygiene is performed.

Contact precautions should also be used in situations when a resident is experiencing wound drainage, fecal incontinence or diarrhea, or other discharges from the body that cannot be contained and suggest an increased potential for extensive environmental contamination and risk of transmission of a pathogen, even before a specific organism has been identified”1

**“MDRO Colonization and Infection**

* Contact precautions are used for residents infected or colonized with MDROs in the following situations:
* When a resident has wounds, secretions, or excretions that are unable to be covered or contained; and
* On units or in facilities where, despite attempts to control the spread of the MDRO, ongoing transmission is occurring.”1
* \*\*See Enhanced Barrier Precautions Policy and Procedure

 The specific infectious agents and circumstances for which Contact Precautions are indicated are found in “Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings Appendix A” at <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html>

The application of Contact Precautions for residents infected or colonized with multidrug-resistant organisms (MDROs) is described in “Management of Multidrug-Resistant Organisms In Healthcare Settings, 2006 (Last update: February 15, 2017) at <https://www.cdc.gov/infectioncontrol/pdf/guidelines/mdro-guidelines.pdf> .

**Contact Precautions**

* **Placement:** A single/private resident room is preferred for residents who require Contact Precautions. When a single-resident room is not available, consultation with the Infection Preventionist is recommended to assess the various risks associated with other resident placement options (e.g., cohort, keeping the resident with an existing roommate) and a decision will be made on a case-by-case basis.
* **Personal Protective Equipment**: Anyone entering the resident room should perform hand hygiene and don a gown and gloves upon entry into the room and properly discard before exiting and perform hand hygiene
* **Signage:** Conspicuously place signage outside the resident room that outlines the specific PPE to be used. Signage can either indicate the CDC category of Transmission-based Precautions-Contact Precautions and should provide instructions to see the nurse prior to entering
	1. Signage must comply with resident’s rights to confidentiality and privacy
* **Limit resident movement** to resident room except for medically necessary purposes.
* **Cleaning and disinfection** of room, environment and high-touch areas with appropriate EPA-registered disinfectant

**Discontinuing Precautions**

* 1. Precautions may be discontinued when signs and symptoms of active infection associated with MDRO resolves.
	2. Precautions may be discontinued when *C. Difficile* infection associated diarrhea resolves.
	3. Precautions may be discontinued when uncontained wound drainage resolves
	4. Precautions may be discontinued when uncontained (e.g., loose or diarrheal stools) fecal incontinence can be contained, or incontinence resolves.
	5. Discontinue Contact Precautions after signs and symptoms of the infection have resolved or according to pathogen-specific recommendations in Appendix A of the “2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings”

<https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html>

**Droplet Precautions Policy**

**Policy**

It is the policy of this facility that in addition to standard precautions, droplet precautions will be used to when respiratory droplets that contain pathogens can be transmitted to others when a resident coughs, sneezes, or talks. Droplet precautions requires a mask to be put on before or upon entering the resident room. While a private room is preferred for residents in droplet precautions, decisions to cohort with another resident will be made on a case-by-case basis, considering the risk of infection to other residents and alternatives available.

**Overview**

“The use of droplet precautions applies when respiratory droplets contain pathogens which may be spread to another susceptible individual. Respiratory pathogens can enter the body via the nasal mucosa, conjunctivae and less frequently the mouth.48 Examples of droplet-borne organisms that may cause infections include, but are not limited to Mycoplasma pneumoniae, influenza, and other respiratory viruses. Respiratory droplets are generated when an infected person coughs, sneezes, talks, or during procedures such as suctioning, endotracheal intubation, cough induction by chest physiotherapy, and cardiopulmonary resuscitation.49 The maximum distance for droplet transmission is currently unresolved, but the area of defined risk based on epidemiological findings is approximately 3-10 feet.50 In contrast to airborne pathogens, droplet-borne pathogens are generally not transmitted through the air over long distances.”1

Infectious agents for which Droplet Precautions are indicated are found in Appendix A of the CDC’s “Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)” and include *Bordetella pertussis,* influenza virus, adenovirus, rhinovirus, *Mycoplasma pneumonia*, SARS-associated coronavirus (SARS-CoV), *Neisseria meningitidis, B. pertussis*, and group A streptococcus (for the first 24 hours of antimicrobial therapy). <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html> .

**Droplet Precautions:**

* **Placement:** A single/private resident room is preferred for residents who require droplet precautions. When a single-resident room is not available, consultation with the Infection Preventionist is recommended to assess the various risks associated with other resident placement options (e.g., cohort, keeping the resident with an existing roommate) and decision will be made on a case-by-case basis, considering risks to other residents and alternatives. Provide spatial separation of at least 3-6 ft and draw the curtain between residents in shared rooms.
* **Personal Protective Equipment**: Anyone entering the resident room should perform hand hygiene and don a facemask. If there is substantial risk of exposure to mucous membranes or spraying of respiratory secretions of if the pathogen/clinical syndrome indicates, in addition to facemask, PPE should also include a gown, gloves and face shield or goggles.
* **Signage:** Conspicuously place signage outside the resident room that outlines the specific PPE to be used. Signage can either indicate the CDC category of Transmission-based Precautions-Droplet Precautions and should provide instructions to see the nurse prior to entering
	1. Signage must comply with resident’s rights to confidentiality and privacy
* **Limit resident movement** to resident room except for medically necessary purposes. If resident must leave room or transport is necessary, resident should be instructed on wearing a mask and following Respiratory Hygiene/Cough Etiquette for the duration of the illness
* **Cleaning and disinfection** of room, environment and high-touch areas with appropriate EPA-registered disinfectant

**Discontinuing Precautions**

Discontinue Droplet Precautions after signs and symptoms of the infection have resolved or according to pathogen-specific recommendations in Appendix A of the “2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings” <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html>

**Airborne Precautions Policy**

**Policy**

It is the policy of this facility that in addition to standard precautions, airborne precautions will be used to when a resident is suspected or known to be infected with pathogens that are very small are easily dispersed in air and are known to be transmitted by the airborne route. Airborne precautions require resident placement in an airborne infection isolation room (AIIR) or to be transferred to a setting with an AIIR. A fit-tested NIOSH-approved N95 or higher-level respirator must be put on before entering the resident room.

**Overview**

“Airborne transmission occurs when pathogens are so small that they can be easily dispersed in the air, and because of this, there is a risk of transmitting the disease through inhalation. These small particles containing infectious agents may be dispersed over long distances by air currents and may be inhaled by individuals who have not had face-to-face contact with (or been in the same room with) the infectious individual.”1

Airborne Precautions prevent transmission of infectious agents that remain infectious over time and long distances when suspended in the air (e.g., rubeola virus (measles), varicella virus (chickenpox), *Mycobacterium tuberculosis*, spores of *Aspergillus* sp., and possibly SARS-CoV) as described in Appendix A of the CDC’s “Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)” <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html>

Microorganisms carried in this manner may be dispersed over long distances by air currents and may be inhaled by susceptible individuals who have not had face-to-face contact with (or been in the same room with) the infectious individual.

Preventing the spread of pathogens that are transmitted by the airborne route requires the use of special air handling and ventilation systems (e.g., AIIRs) to contain and then safely remove the infectious agent.

A respiratory protection program that includes education about fit testing and user seal checks are required in any facility with AIIRs. In settings where Airborne Precautions cannot be implemented due to limited engineering resources, masking the resident, placing the resident in a private room with the door closed, and providing N95 or higher level respirators or masks if respirators are not available for healthcare personnel will reduce the likelihood of airborne transmission until the resident is transferred to a facility with an AIIR, as deemed medically appropriate. Healthcare personnel caring for residents on Airborne Precautions should don a fit-tested NIOSH-approved N95 or higher-level respirator prior to entering resident room. Whenever possible, non-immune HCWs should not care for residents with vaccine-preventable airborne diseases (e.g., measles, chickenpox, and smallpox).

**Airborne Precautions:**

* **Placement:** Resident should be placed in an airborne infection isolation room (AIIR). If facility does not have an AIIR, place resident in a private room, prepare for transfer to a healthcare facility with an AIIR. instruct resident to wear a surgical mask and practice Respiratory Hygiene and Cough Etiquette during transfer. If resident has infected skin lesions, cover before transfer
* **Personal Protective Equipment**: Anyone entering the resident room should don a fit-tested NIOSH-approved N95 or higher respirator
* **Signage:** Conspicuously place signage outside the resident room that outlines the specific PPE to be used. Signage can either indicate the CDC category of Transmission-based (Airborne) Precautions and should provide instructions to see the nurse prior to entering
	1. Signage must comply with resident’s rights to confidentiality and privacy
* **Limit resident movement** to resident room except for medically necessary purposes. If resident must leave room or transport is necessary, resident should be instructed on wearing a mask and following Respiratory Hygiene/Cough Etiquette for the duration of the illness if in AIIR or until transport
* **Cleaning and disinfection** of room, environment and high-touch areas with appropriate EPA-registered disinfectant

**Discontinuing Precautions**

Discontinue Airborne Precautions as indicated by the physician, public health or according to pathogen-specific recommendations in Appendix A of the “2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings” <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html>

**References and Resources**

* 1Centers for Medicare & Medicaid Services State Operations Manual, Appendix PP – Guidance to Surveyors for Long Term Care Facilities (Rev. 173, 11-22-17) Advance Copy, 2022: <https://www.cms.gov/files/document/appendix-pp-guidance-surveyor-long-term-care-facilities.pdf>
* Centers for Disease Control and Prevention. Transmission-Based Precautions: <https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.htm>
* Centers for Disease Control and Prevention. Standard Precautions for All Patient Care: <https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html>
* Centers for Disease Control and Prevention. Healthcare Providers-Hand Hygiene Guideline. <https://www.cdc.gov/handhygiene/providers/index.html>
* Centers for Disease Control and Prevention. Respiratory Hygiene/Cough Etiquette in Healthcare Settings. <https://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm>
* Centers for Disease Control and Prevention. Type and Duration of Precautions Recommended for Selected Infections and Conditions: <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html>
* Centers for Disease Control and Prevention. Management of Multidrug-Resistant Organisms In Healthcare Settings 2006, Updated February 15, 2017: <https://www.cdc.gov/infectioncontrol/pdf/guidelines/mdro-guidelines.pdf>
* Centers for Disease Control and Prevention. Guidelines for Environmental Infection Control in Health-Care Facilities. Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee [HICPAC], Updated: July 2019: <https://www.cdc.gov/infectioncontrol/pdf/guidelines/environmental-guidelines-P.pdf>