

ENHANCED BARRIER PRECAUTIONS IN SKILLED NURSING FACILITIES

North Dakota Health and Human Services (HHS) has adopted guidance from the Centers for Disease Control and Prevention's (CDC) [Implementation of Personal Protective Equipment \(PPE\) in Nursing Homes to prevent the spread of Multi-Drug Resistant Organisms \(MDROs\)](#). This document is intended to provide guidance for PPE use and room restriction in nursing homes for preventing transmission of MDROs, including as part of a public health [response](#).

Enhanced Barrier Precautions (EBP) expand the use of PPE and refer to the use of gown and gloves during high-contact resident care activities that provide opportunities for transfer of MDROs to staff hands and clothing. MDROs may be indirectly transferred from resident-to-resident during these high-contact care activities. Nursing home residents with wounds and indwelling medical devices are at especially high risk of both acquisition of and colonization with MDROs. The use of gown and gloves for high-contact resident care activities is indicated, when Contact Precautions do not otherwise apply, for nursing home residents with wounds and/or indwelling medical devices regardless of MDRO colonization as well as for residents with MDRO infection or colonization.

Multidrug-resistant organism transmission is common in skilled nursing facilities, contributing to substantial resident morbidity and mortality and increased health care costs.

Examples of high-contact resident care activities include but are not limited to:

- Dressing
- Bathing/showering
- Transferring
- Providing hygiene
- Changing linens
- Changing briefs or assisting with toileting
- Device care or use: central line, urinary catheter, feeding tube, tracheostomy/ventilator
- Wound care: any skin opening requiring a dressing

When determining if a care is considered high-contact or not, it is best to anticipate wearing gown and gloves. Health care workers should also attempt to cluster cares to decrease frequency of donning and doffing PPE.

EBP may be applied (when Contact Precautions do not otherwise apply) to residents with any of the following:

- Wounds or indwelling medical devices, **regardless** of MDRO colonization status
- Infection or colonization with an MDRO

The consideration to expand EBP as a routine approach to infection control is based on the recognition that Standard Precautions, which requires the use of gown and glove in situations of expected exposure to blood, body fluids, skin breakdown, or mucous membranes, often have not been successfully implemented in nursing home settings.

Implementation of [Contact Precautions](#), as described in the CDC [Guideline for Isolation Precautions](#), is perceived to create challenges for nursing homes trying to balance the use of PPE and room restriction to prevent MDRO transmission with residents' quality of life. Thus, many nursing homes only implement Contact Precautions when residents are infected with an MDRO and on treatment.

Focusing only on residents with active infection fails to address the continued risk of transmission from residents with MDRO colonization, who by definition have no symptoms of illness. MDRO colonization may persist for long periods of time (e.g., months) which contributes to the silent spread of MDROs.

In general, gown and gloves would not be required for resident care activities other than those listed above, unless otherwise necessary for adherence to Standard Precautions. Residents are not restricted to their rooms or limited from participation in group activities. Because Enhanced Barrier Precautions do not impose the same activity and room placement restrictions as Contact Precautions, they are intended to be in place for the duration of a resident's stay in the facility or until resolution of the wound or discontinuation of the indwelling medical device that placed them at higher risk.

For the purposes of this guidance, the MDROs for which the use of EBP applies are based on local epidemiology. At a minimum, they should include resistant organisms targeted by CDC but can also include other epidemiologically important MDROs.

Examples of MDROs Targeted by CDC include:

- Pan-resistant organisms
- Carbapenemase-producing carbapenem-resistant Enterobacterales
- Carbapenemase-producing carbapenem-resistant *Pseudomonas* spp.
- Carbapenemase-producing carbapenem-resistant *Acinetobacter baumannii*
- *Candida auris*

Additional epidemiologically important MDROs may include, but are not limited to:

- Methicillin-resistant *Staphylococcus aureus* (MRSA)
- ESBL-producing Enterobacterales
- Vancomycin-resistant *Enterococci* (VRE)
- Multidrug-resistant *Pseudomonas aeruginosa*
- Drug-resistant *Streptococcus pneumoniae*

When considering if your facility should implement EBPs for additional epidemiological important MDROs listed above, facilities should perform a risk assessment for overall rates of these organisms and if high percentage of residents have a history of infection or colonization, could consider implementation for specific units with high rates or facility wide. Other factors such as level of care and mental status of residents should also be considered.

When implementing EBPs, it is critical to ensure that staff have awareness of the facility's expectations about hand hygiene and gown/glove use, initial and refresher training, and access to appropriate supplies. To accomplish this:

- Post clear [signage](#) on the door or wall outside of the resident room indicating the type of Precautions and required PPE (e.g., gown and gloves)
 - For Enhanced Barrier Precautions, signage should also clearly indicate the high-contact resident care activities that require the use of gown and gloves
- Make PPE, including gowns and gloves, available immediately outside of the resident room
- Ensure access to alcohol-based hand rub in every resident room (ideally both inside and outside of the room)
- Position a trash can inside the resident room and near the exit for discarding PPE after removal, prior to exit of the room or before providing care for another resident in the same room
- Incorporate periodic monitoring and assessment of adherence to determine the need for additional training and education
- Provide education to residents and visitors

Prevention of MDRO transmission in nursing homes requires more than just proper use of PPE and room restriction. Guidance on implementing other recommended infection prevention practices (e.g., hand hygiene, environmental cleaning, proper handling of wounds, indwelling medical devices and resident care equipment) are available in CDC's free online course — [The Nursing Home Infection Preventionist Training](#).

For additional CDC resources such as Pre-Implementation Observations, EBPs Implementation Observations, Summary of Observations and Letters to Nursing Homes Families and Residents, Staff, and Leadership; see [here](#).

Please note: This document is not intended for use in acute care or long-term acute care hospitals and does not replace existing guidance regarding use of Contact Precautions for other pathogens (e.g., *Clostridioides difficile*, norovirus) in nursing homes.

Refer questions to HAI team by emailing hhsicar@nd.gov or see CDC's Frequently Asked Questions on Enhanced Barrier Precautions [here](#).