

AHCA/NCAL Clinical Scenarios

Scenario: Enhanced Barrier Precautions

Scenario

Cecily Green is a new 72-year-old resident that is being admitted from an acute care facility, Mountain Regional Hospital, to your long-term care facility (LTCF), The Meadows. She has a draining wound with surrounding cellulitis that was culture positive for Methicillin-susceptible *Staphylococcus aureus*. She currently has a peripheral IV catheter in place for antibiotic treatment for her cellulitis with Staph. The acute care nurse gave a report to Amy Fox, LPN. During the handoff report, the nurse told Amy that Mrs. Green is in Contact Precautions at the hospital due to her draining wound. Mrs. Green arrives at the facility, and Amy immediately places her in Contact Isolation. Bruce Green, Cecily's son, is upset because he did not think he would have to continue wearing a gown while visiting his mother. He is an administrator at a LTCF in another state. He tells Amy that they use Enhanced Barrier Precautions (EBP) for residents with a wound like his mother's and wants her removed from Contact Precautions, so he does not need to wear a gown or gloves when visiting. You are the Infection Preventionist at the Meadows. Amy sees you in the hallway and asks if she can speak with you about the new admission. She explains the situation and the son's request. Amy thinks this resident would not meet the criteria for EBP because Mrs. Green has an MDRO in her wound, but she is unsure.

Scenario Summary

The first issue highlighted in this scenario is that Amy is unfamiliar with Enhanced Barrier Precautions (EBP). The IP should explore if this is a knowledge deficit due to inadequate education or a misunderstanding about the concepts. According to CDC, Enhanced Barrier Precautions expand the use of PPE to the use of gowns and gloves during high-contact resident care activities that provide opportunities for transfer of MDROs to staff hands and clothing in addition to staff transferring MDROs between high-risk residents. 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 and 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.

Examples of high-contact resident care activities requiring gown and glove use for *Enhanced Barrier Precautions* include:

- 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

Resource: <https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html>

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Enhanced Barrier Precautions are only applicable in long-term care facilities so there may be instances in which a resident will come from an acute care facility in Contact Precautions or when they were in the hospital under standard precautions but may meet the criteria for EBP when they transition to a long-term care setting. EBP was created to allow more flexibility for residents so that they can leave their room and participate in activities, which is not recommended as part of contact precautions. Additionally, they do not have to be in a private room as part of EBP as is recommended when they require contact precautions.

Resource: <https://www.cdc.gov/hai/pdfs/containment/PPE-Nursing-Homes-Table-H.pdf>

The second issue is that Amy did not get all the clinical information during report from the acute care nurse related to the wound to determine if EBP or Contact Precautions is needed. Since the draining wound is the primary infection prevention concern in this situation, that information is important. In a long-term care facility this is not the case. It depends on if the draining wound can be contained. If it can be contained EBP would apply. If it can't be contained, then Contact Precautions would still apply.

The third issue is that Methicillin-susceptible *staphylococcus aureus* is not an MDRO, so Amy's train of thought is incorrect. Also, if the wound was positive for an MDRO, that criteria alone would not be the basis for the type of precautions in a long-term care facility. In this case, it's the presence of drainage and the ability to contain it. The presence of a peripheral IV would not affect the type of precautions in this scenario because it is not one of the indwelling devices that prompts EBP.

The IP should explain to Mrs. Green's son the reason EBP would or would not be appropriate using the resources from CDC. The IP should explain this to the resident's family after that determination has been made. In addition, the IP should explain that if the condition of the wound changes, for example the drainage increases and can't be contained, Contact Precautions would be reinstated. Family members and visitors to residents with EBP are recommended to wear a gown and gloves if they will assist with high contact care activities but a facility cannot require their use (unless the resident requests their use by visitors, then resident's wishes would need to be followed). The resident's son's request has not considered the drainage nor his understanding that with EBP staff will need to use gowns and gloves when providing high-contact activities. His use is recommended but not required. Since he is in health care, you may want to explain to him that he should follow EBP so that he does not accidentally bring infectious agents back to his facility or accidentally spread an MDRO or infectious agent from his facility to his mother.

Resources:

Enhanced Barrier Precautions Guidance: <https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html>

Multidrug Resistant Organisms Guidance: <https://www.cdc.gov/hai/mdro-guides/prevention-strategy.html>

Isolation Precautions Guidance: <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>

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Questions

1. What recommendation do you, as the IP, make to Amy about the type of precautions needed?

- This resident meets criteria to remain on Contact Precautions.
- This resident meets the criteria to transition to the use of EBP.
- Until you gather more information about the drainage from the wound, you cannot make a decision right now to change the type of precautions, so the resident should remain on Contact Precautions.
- This resident does not require any additional precautions above Standard Precautions.

Answer is C: This resident was in Contact Precautions at the acute care facility because she has a draining wound. The presence of a wound would not necessarily trigger the use of Contact Precautions unless there was the presence of excretions from the wound that could not be contained. Now that she has been admitted to a long-term care facility, the nurse should continue the use of Contact Precautions until she is able to reassess the wound's drainage and determine if the drainage is able to be contained. Amy should explain the assessment process to Mrs. Green's son so that he has a better understanding of how precautions are determined in the nursing home.

Per the CDC's Frequently Asked Questions (FAQs) about Enhanced Barrier Precautions in Nursing Homes, residents who have wounds with drainage that cannot be contained must be placed on Contact Precaution in addition to Standard Precautions. Enhanced Barrier Precautions would generally be appropriate for a resident with an open wound. For Enhanced Barrier Precautions to be used in this scenario, any drainage present from the wound would need to be contained. Based on this information, Amy needs to determine if the draining wound can be contained. Once she obtains that information, the decision can be made related to the appropriate precautions.

Resource: CDC Frequently Asked Questions (FAQs) about Enhanced Barrier Precautions in Nursing Homes, <https://www.cdc.gov/hai/containment/faqs.html>, Last Reviewed: July 27, 2022, Accessed 02-09-2024

2. True or False, Methicillin-susceptible *Staphylococcus aureus* (MSSA) is a multidrug-resistant organism (MDRO)?

Answer is False: MSSA, or Methicillin-susceptible *Staphylococcus aureus* (AKA Staph), is an infection caused by a type of bacteria commonly found on the skin. You might have heard it called a staph infection. Staph infections are classified according to how they respond to this treatment:

- MSSA infections are **susceptible** to antibiotics in the methicillin class.
- Methicillin-**resistant** *Staphylococcus aureus* (MRSA) infections are resistant to certain antibiotics.

Since the type of *Staphylococcus aureus* described in this scenario is **not** resistant to antibiotics, it is **not** considered a multidrug resistant organism (MDRO). MSSA is often confused with MRSA, which is considered an MDRO. Amy most likely made this mistake because she incorrectly thought the wound was positive for an MDRO in the scenario.

Resource: Vandergriendt, Carly, Healthline, *What Is Methicillin-Susceptible Staphylococcus Aureus (MSSA)?*, <https://www.healthline.com/health/mssa#outlook>, Last Updated January 5, 2024, Accessed 02-09-24

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Questions (cont.)

3. Amy confirms that the wound is draining some fluid, but it is easily able to be contained. They have switched Mrs. Green over to oral antibiotics so the peripheral IV is being discontinued. What type of precautions are indicated?
- Standard
 - Contact
 - EBP
 - Both a and c

Answer is D: Since Mrs. Green's wound drainage can be easily contained, she meets the criteria for Enhanced Barrier Precautions (EBP). In general, for EBP use in nursing homes, the CDC recommends any resident with a chronic wound, and not a shorter-lasting, such as a small scratch or skin tear, to be placed on EBP.

If the resident did not have a wound and only had a peripheral IV, the resident would not need to be placed on EBP as peripheral IVs are not considered indwelling medical devices for the purpose of using EBP.

EBP is recommended in the nursing home for any resident with a wound (if drainage can be contained), an indwelling medical device (such as an indwelling foley catheter or feeding tube), and/or a MDRO. If a resident is on EBP, a gown and gloves should be used for any high-contact resident care.

Standard Precautions apply to the care of all residents, regardless of suspected or confirmed infection or colonization status. Standard Precautions would apply, including the use of eye protection if there is an anticipated risk of splashing or exposure to body fluids. For this reason, Standard Precautions should be applied in addition to Enhanced Barrier Precautions.

Resource: <https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html>

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