Enhanced Barrier Precautions

What, Where, When, Why, and How

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OBJECTIVES

- Describe best practices for **E**nhanced **B**arrier **P**recautions including implementation strategies
- Identify opportunities to reduce the need for **E**nhanced **B**arrier **P**recautions
- Recognize nuances of **E**nhanced **B**arrier **P**recautions

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WHY IS EBP NEEDED?

AIM: Reduce transmission of MDROs in nursing homes – **E**nhanced **B**arrier **P**recautions (**EBP**)

- **2019: CDC introduced an approach called EBP**
- **July 2022: CDC released "Implementation of PPE Use in nursing homes to prevent spread of MDROs"**

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QSO-24-08-NH

- Published 3/20/24; Effective 4/1/24
- Tied to F880 Infection control
- Updated LTC Survey Pathways - https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/nursing-homes (they are under "Downloads" in the "Survey Resources" zip file - file name: CMS-20054)

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What *Are* Enhanced Barrier Precautions (EBP)?

- Builds on current infection control practices of standard precautions- based on the anticipated exposure to blood, body fluids, secretions, and excretions
- Gown and gloves for high contact activities

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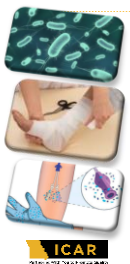
Who Should Be on EBP?



- Infection or colonization by MDRO when Contact Precautions are not indicated
- Wounds: chronic wounds such as, pressure ulcers, diabetic foot ulcers, unhealed surgical wounds, and venous stasis ulcers
- Indwelling medical device: central lines, urinary catheters, feeding tubes, and tracheostomies

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Residents who have complex medical needs involving wounds and indwelling medical devices are at higher risk of both acquisition and colonization by MDROs.

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"WHY": HIGH-CONTACT ACTIVITIES

Resident-to-resident pathogen transmission in skilled nursing facilities occurs, in part, via healthcare personnel, who may transiently carry and spread MDROs on their hands or clothing during resident care activities.

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When to use EBP

EBP recommended for residents either infected or colonized with:

- Pan-resistant organisms,
- Carbapenemase-producing carbapenem-resistant Enterobacterales,
- Carbapenemase-producing carbapenem-resistant *Pseudomonas*,
- Carbapenemase-producing carbapenem-resistant *Acinetobacter baumannii*, and
- *Candida auris*

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*

Decisions would be based on local conditions, outbreaks, likelihood of transmission, etc.

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https://www.cdc.gov/long-term-care-facilities/hcp/prevent-mdro/PPE.html

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Is Resident MDRO Screening Needed to Implement EBP?

NO.
Pre-emptive screening to determine a resident's MDRO status only for the purpose of determining the need for EBPs is NOT recommended.

EBPs: use of gown and gloves is based on resident risk factors and type of care being provided, rather than MDRO status alone, especially for residents at risk for MDRO acquisition (i.e., presence of indwelling medical devices or wounds).

Carefully review any admissions records!

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"Why": High-Contact Activities?

- Staff members may unintentionally carry germs on their hands or clothing to another resident.
- Studies show high contact care activities are more likely to spread MDROs from the resident to the staff member's clothes or hands.

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"How": EBP High-Contact Activities

Dressing	Bathing/showering	Transferring	Providing hygiene
Changing linens	Changing briefs or assisting with toileting	Device care or use	Wound care

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Effective EVS Practices: PPE and Hand Hygiene

- Gown and gloves should be worn when changing linens.
- Facility policy should include when, not if, PPE should be used by EVS when cleaning **EBP** rooms.
- In the case of a two-person room, clean **non-EBP** side, then clean the **EBP** side.
- After room cleaning is completed, change mop head and water.

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Alcohol-Based Hand Rub Inside Every Room

Ideally, inside AND outside every room!

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Trash Cans

- ✓ **Inside room near exit**
- ✓ **Adjust trash service if large numbers on EBP**

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Isolation Carts and PPE

- Placement
- Cart size
- If residents requiring EBP are naturally grouped, carts may be shared (be certain supplies are adequate)
- Re-stocking

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Disinfecting Medical Equipment

- Know what disinfectant is being used for what:
  - What disinfects glucometers?
  - What disinfects hoyers?
  - What disinfects counter tops?

Limit supplies so everyone knows what cleans what and what the contact time is.

LESS IS MORE!

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EBP Signage

- *Must* include type of precaution
- PPE to be used
- Signs to 'See Nurse' are not adequate
- Get sign here

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How Can We Reduce the Need for Enhanced Barrier Precautions?

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WHAT DOES IT MEAN?

How would you describe *Antibiotic Stewardship*?

Antibiotic stewardship refers to a set of commitments and actions designed to "optimize the treatment of infections while reducing the adverse events associated with antibiotic use." - CDC

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POLICIES AND PRACTICES

- Establish and educate staff regarding policies and processes regarding identifying infections
  - Select a criteria (McGeer, Loeb, NHSN?)
  - Method to report to providers (SBAR?)
  - Documentation requirements
  - Be incorporated in the overall infection prevention and control program; (UTIs, URIs)
  - Be reviewed on an ***annual*** basis and as needed, and document this review

www.cdc.gov/antibiotic-use/core-elements/pdfs/core-elements-antibiotic-stewardship-appendix-a-508.pdf

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Why Does It matter???

- Reduces risk of antibiotic resistance
- Reduces risk of harmful side effects
- Reduces risk of polypharmacy and drug interactions

As MDROs (Multi Drug Resistant Organisms) continue to rise, action needs to be taken to manage this dangerous trend.

Enhanced **B**arrier **P**recautions (**EBP**) is a reactive strategy to this crisis.

It has become a *national* priority!

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Antibiotic Stewardship GOAL

- ✓ *Improve* antibiotic prescribing
- ✓ *Improve* administration methods
- ✓ *Improve* management practices

Ensure residents receive the right antibiotic for the right indication, dose, and duration

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Antibiotic Stewardship

Core Elements of the Antibiotic Stewardship Program:

1. **Facility leadership, *including primary care doctors,*** commitment to safe and appropriate antibiotic use;
2. Appropriate facility **staff accountable** for promoting and overseeing antibiotic stewardship;
3. Accessing pharmacists with **drug expertise** to consult on antibiotic stewardship;
4. Implement **policies or practices** to improve antibiotic use;
5. **Track** measures of antibiotic use in the facility (i.e., one process and one outcome measure);
6. **Regular reporting** on antibiotic use and resistance to relevant staff such as prescribing clinicians and nursing staff; ***and***
7. **Education** of staff and residents about antibiotic stewardship.

ALL ELEMENTS MUST BE IN PLACE FOR THIS TO WORK

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Antibiotic Time-Out

Occurs 48-72 hours after first administration

Takes into consideration:

- Culture and sensitivity test results
- Response to therapy
- Resident condition
- Facility needs (i.e., outbreak)

Used to reassess residents:

- Antibiotic need
- Duration of treatment
- Selection of antibiotic
- De-escalation potential

Quality Documentation Matters!

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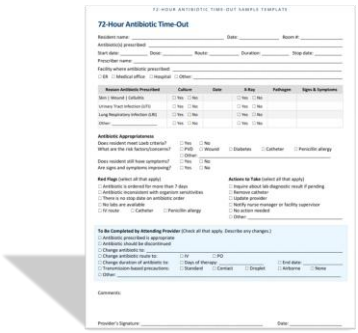
72-Hour Antibiotic Time-Out

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Use Your EMR

- Provide automated alerts for each newly prescribed antibiotic
  - 2-3 days post initial administration
- Generate Lists
  - Run for all residents on antibiotics including ones in time out period
- Document completion of antibiotic time out and results

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Educate

- Newsletters
- Signage
- Resident and family meetings
- In-services and other training opportunities:
  - https://www.ahrq.gov/nhguide/toolkits/educate-and-engage/index.html
- Provider education:
  - https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/index.html
- Additional resources and information:
  - https://www.cdc.gov/antibiotic-use/hcp/core-elements/nursing-homes-antibiotic-stewardship.html

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Prevention is Best!

To avoid infections, promote best practices!

- Hand hygiene
- Pericare
- Hydration
- Skin care
- Wound care
- Cleaning and disinfection - equipment and surfaces

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NUANCES

When It's Not So Clear Cut!!!

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NUANCES OF EBP

Nuance - simply, "a subtle or slight difference"

The regulation QSO-24-08-NH appears straight forward but… there have been LOTS of questions!

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PPE PLACEMENT

PPE for **EBP** *- gowns, gloves and possibly eye protection*

Where is the best place for PPE supplies for **EBP** use?

Consider:

- ✓ Number of residents on a hallway or in facility on **EBP**
- ✓ Acuity of resident determining amount of close care they require
- ✓ Ability to keep supplies stocked

Best practice is outside the room - either in a wheeled cart or hanging storage unit:

- Hanging units should not protrude further than 4 inches into the hallway
- Storage carts must have wheels if in the hallway, so they are mobile.

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PPE Placement

Can PPE be placed inside the room?

Yes, BUT…

Consider:

- ✓ Process to ensure staff compliance of PPE use
- ✓ Process to ensure PPE supplies are stocked
- ✓ Ensure integrity of PPE
- ✓ Proximity of PPE from resident's room (4-5 rooms away is too far!)

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Signage

CDC signage is gold standard

- ✓ Posted outside resident's door
  - If not single occupancy, should indicate which resident it applies
- ✓ Include type of precaution
- ✓ PPE to be used
- ✓ Need for hand hygiene

https://www.cdc.gov/long-term-care-facilities/media/pdfs/enhanced-barrier-precautions-sign-p.pdf?CDC_AAref_Val=https://www.cdc.gov/hai/pdfs/containment/enhanced-barrier-precautions-sign.pdf

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Differences in MDROs

All MDROs are not viewed the same by the CDC regarding the need for EBP

At a minimum, **E**nhanced **B**arrier **P**recautions are intended to be used for residents colonized or infected with novel (e.g., those newly introduced or emerging in a locality or region) MDROs or MDROs targeted by CDC.

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Differences in MDROs

Additional MDROs may be epidemiologically important locally - determinations about an organism being epidemiologically important may be influenced by factors that include:

- Local epidemiology
- Presence of ongoing or past outbreaks
- Propensity for transmission in healthcare facilities
- Association with severe outcomes ***or***
- Targeting for local prevention efforts

**Flexibility is important when considering your resident population*

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Differences in MDROs

Examples of MDROs that might be epidemiologically important locally:

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

**Consult with local health department for additional guidance*

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Answering Call Lights

SCENARIO: *A staff member enters the room of a resident on* **EBP** *to answer a call light. This will involve talking with the resident and giving oral medications.*

Does EBP apply in this situation?

ANSWER: No. If high-contact care is not being provided, **EBP** would not be required.

What if the resident needs toileting assistance while you are in the room?

ANSWER: Yes! If additional care is needed once in the room **EBP** would need to be donned.

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What About…

An admission arrives for rehab following a mild stroke. She is diabetic and has had a colostomy over 5 years. Her left great toe was amputated last year as a complication of diabetes.

Will she require EBP?

A. Yes
B. No
C. Only if she cannot manage her colostomy

Answer: No. Residents with a colostomy do not require **EBP**. Also, having a stroke, diabetes, and an amputation that is healed would not require **EBP**.

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What Type of Precautions are Needed?

Mr. J has been on your rehab unit for 10 days post-knee replacement. His surgical wound is healing well. Last night he developed foul-smelling diarrhea. A stool culture was sent. The results won't be back for 48 – 72 hours.

What type of precautions should be used?

1) **Enhanced Barrier Precautions – he has a wound**
2) **Contact Precautions – he probably has C. diff in his stool**
3) **Nothing – he's healing**

Answer: 2) Contact Precautions.
His history & diarrhea indicate that he may have *C. difficile*. It is best to err on the side of caution and use Contact Precautions.
**IF his wound still required a dressing and no suspicion of C. difficile then Enhanced Barrier Precautions (Source: CMS EBP FAQ #23)*

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Contact or EBP

A resident with a targeted MDRO was admitted. He has draining wounds that are unable to be contained. **Should contact precautions be continued from the hospital?**

ANSWER: Yes. Contact precautions are recommended for residents with diarrhea, draining wounds, or other secretions or excretions unable to be covered or contained or for a limited period during a suspected or confirmed MDRO outbreak investigation.

If/when the wound drainage can be contained, then* ***EBP* *is acceptable.*

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Roommates and Medical Devices

Mrs. X and Mrs. Y are roommates. Mrs. X has a long-term Foley catheter. Mrs. Y is on dialysis with a central dialysis catheter. **How would you approach EBP with the two ladies?**

A. Move them each to private rooms
B. Place them on **EBP**
C. No need since they won't contaminate the other one
D. Use Contact Precautions since it is 'double trouble'

Answer: B. Place them both on **EBP** as each has an indwelling device. (Refer to CDC **EBP** FAQ #22)

What *other considerations* exist related to nursing care and housekeeping?

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When Might EBP be Discontinued?

A resident has her indwelling Foley catheter removed. The nursing home staff has been using ***EBP.*** **Is EBP still needed after device removal?**

ANSWER: **EBP** may be discontinued if a resident was placed on **EBP** only because of a wound or indwelling medical device and the wound heals, or device is removed.

A resident with an MDRO colonization was screened during a recent hospitalization and the culture result was negative. **Is EBP still required when they return to the nursing home?**

ANSWER: Yes, due to the number of false negatives **EBP** is still required. A false negative can also be resulted depending on the number of sites cultured. (Source: CMS **EBP** FAQ #18)

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Care and Use of Indwelling Medical Devices

Scenario: A resident has a feeding tube and is on **EBP.** Should a gown and gloves be used by the staff member when giving the tube feed?

Answer: Yes. The safest practice is to wear gown and gloves for any care (dressing changes) or use (medications or tube feeding) of the feeding tube.

Rationale: Having a feeding tube is a risk factor for being colonized with or acquiring a MDRO.

- If only limited physical contact between staff and resident (e.g., passing medications through a feeding tube), gloves alone can be used.
  Use only if the activity is not bundled together with other high-contact care activities.

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Environmental Services (EVS)

Scenario: Housekeeping is changing linen in the resident's room. The resident is on **EBP** for targeted MDRO colonization.

Does the housekeeper need to wear gown and gloves while changing linen?

ANSWER: Yes! Changing linen is considered a high contact resident care activity.

What if EVS does not perform linen changes?

There still may be other tasks performed by EVS that places them in high-contact with the resident's belongings and high touch surfaces.

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Physical Therapy (PT)

SCENARIO: PT will be working with a resident on **EBP.**

What does PT need to know about EBP?

Therapists use gowns & gloves when working with residents on **EBP** in the therapy gym or resident room if anticipating close physical contact, like transfers, mobility, or other high contact activity.

Gowns and gloves should be removed, and hand hygiene performed when moving to work with another resident.

Reusable therapy equipment should be cleaned & disinfected after each use. Surfaces in the therapy gym should have routine cleaning and disinfection.

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Summary

- Ensure your facility's policies and procedures state clearly when **E**nhanced **B**arrier **P**recautions is indicated.
- Communicate and educate staff, family and residents on what **E**nhanced **B**arrier **P**recautions is and why it may be implemented.
- Involve Environmental Services team with **E**nhanced **B**arrier implementation and provide guidance on their role to prevent MDRO spread.
- Facilities are getting cited for staff not using PPE when indicated for **E**nhanced **B**arrier **P**recautions. Have an audit process in place to support compliance.
- Review census regularly for residents' need of **E**nhanced **B**arrier **P**recautions- either to discontinue or implement.

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Resources

- ✓ QSO-24-08-NH- https://www.cms.gov/files/document/qso-24-08-nh.pdf
- ✓ CMS **E**nhanced **B**arrier **P**recautions in Nursing Homes FAQ - https://www.cdc.gov/long-term-care-facilities/hcp/prevent-mdro/faqs.html
- ✓ APIC **E**nhanced **B**arrier Implementation Guide in SNFs - https://apic.org/wp-content/uploads/2024/12/2024-Implementing-Enhanced-Barrier-Precautions-in-Long-Term-Care.pdf
- ✓ QIPMO Nursing Home Help - https://nursinghomehelp.org/educational-resources/?_sft_educationcategory=enhanced-barrier-precautions
- ✓ HQIN **E**nhanced **B**arrier Toolkit - https://hqin.org/wp-content/uploads/2024/09/Enhanced-Barrier-Precautions-Toolkit_091924.pdf

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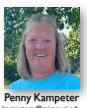

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