



Enhancing Infection Prevention in Nursing Homes through Enhanced Barrier Precautions

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1

Speaker Disclosures

- No conflicts to disclose
- The content of this presentation reflects my opinion and does not necessarily reflect the official position of the CDC

2

Learning Objectives

By the end of this session, participants will be able to:

- Describe the burden of Multidrug-resistant Organisms (MDROs) and the reasons for disproportionately high risk of MDRO transmission in SNFs
- Define Enhanced Barrier Precautions (EBP) and appropriate residents who would benefit from its use
- Develop a plan for EBP implementation in SNFs

3

Case Presentation

Larry is a community-dwelling 87-year-old man who is admitted to the skilled nursing facility after a fall with hip fracture with ORIF (open reduction and internal fixation).

4

Case – Question 1

Which infection prevention precautions should be implemented?

- a) Standard Precautions
- b) Droplet Precautions
- c) Contact Precautions
- d) Airborne Precautions
- e) Enhanced Barrier Precautions

5

Case – Question 1

Which infection prevention precautions should be implemented?

- a) **Standard Precautions**
- b) Droplet Precautions
- c) Contact Precautions
- d) Airborne Precautions
- e) Enhanced Barrier Precautions

6

Standard Precautions

- Perform hand hygiene
- Using PPE when expectation of possible exposure to infectious material
- Respiratory hygiene-cough etiquette
- Appropriate patient placement
- Properly handle and properly clean equipment and environment
- Careful handling of textiles and laundry
- Follow safe injection practices (procedures)
- Proper handling of needles/sharps

7

Transmission-Based Precautions

- ✓ Contact Precautions
- ✓ Droplet Precautions
- ✓ Airborne Precautions



8

Transmission-Based Precautions

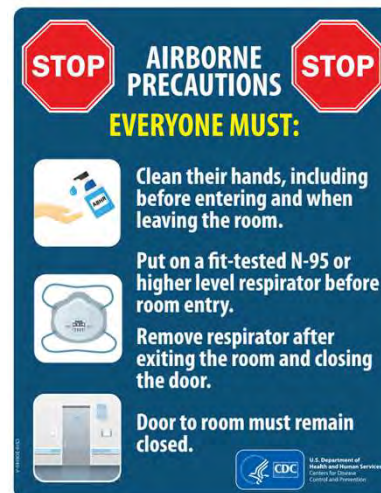
- ✓ Contact Precautions
- ✓ **Droplet Precautions**
- ✓ Airborne Precautions



9

Transmission-Based Precautions

- ✓ Contact Precautions
- ✓ Droplet Precautions
- ✓ **Airborne Precautions**



10

The Burden of MDROs in SNFs...

...and the Need for EBP

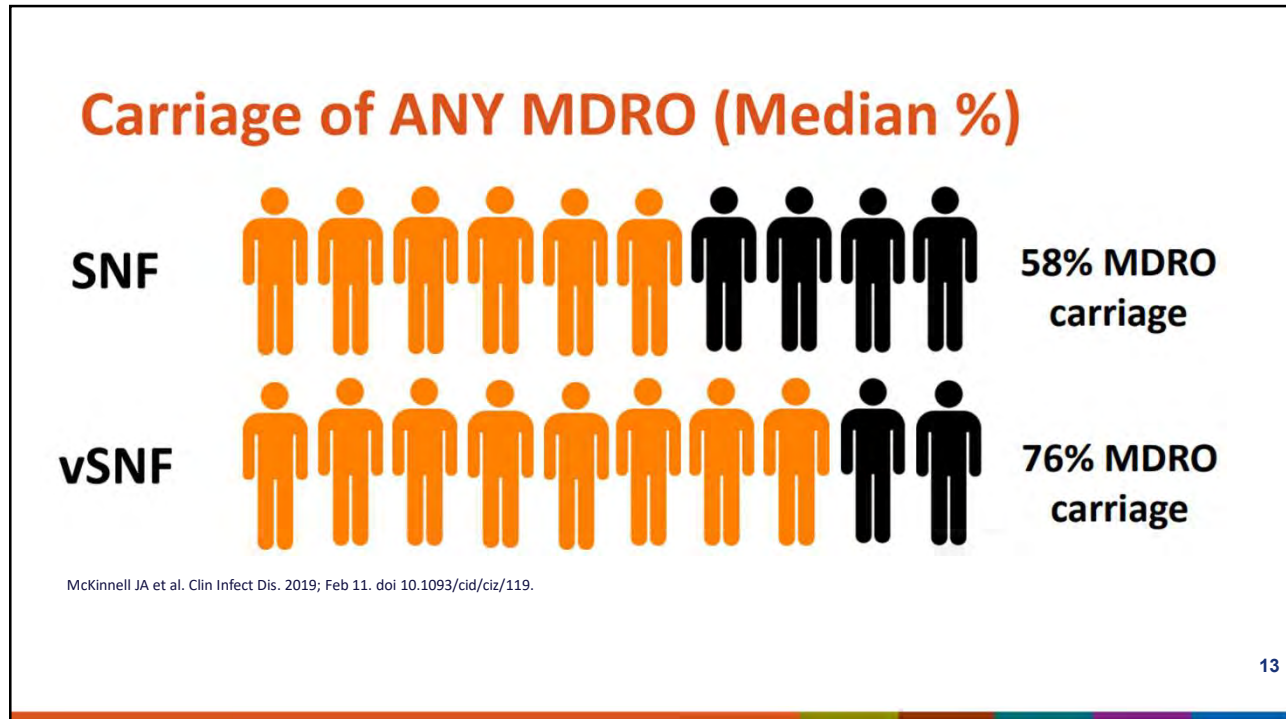
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Case Presentation, continued...

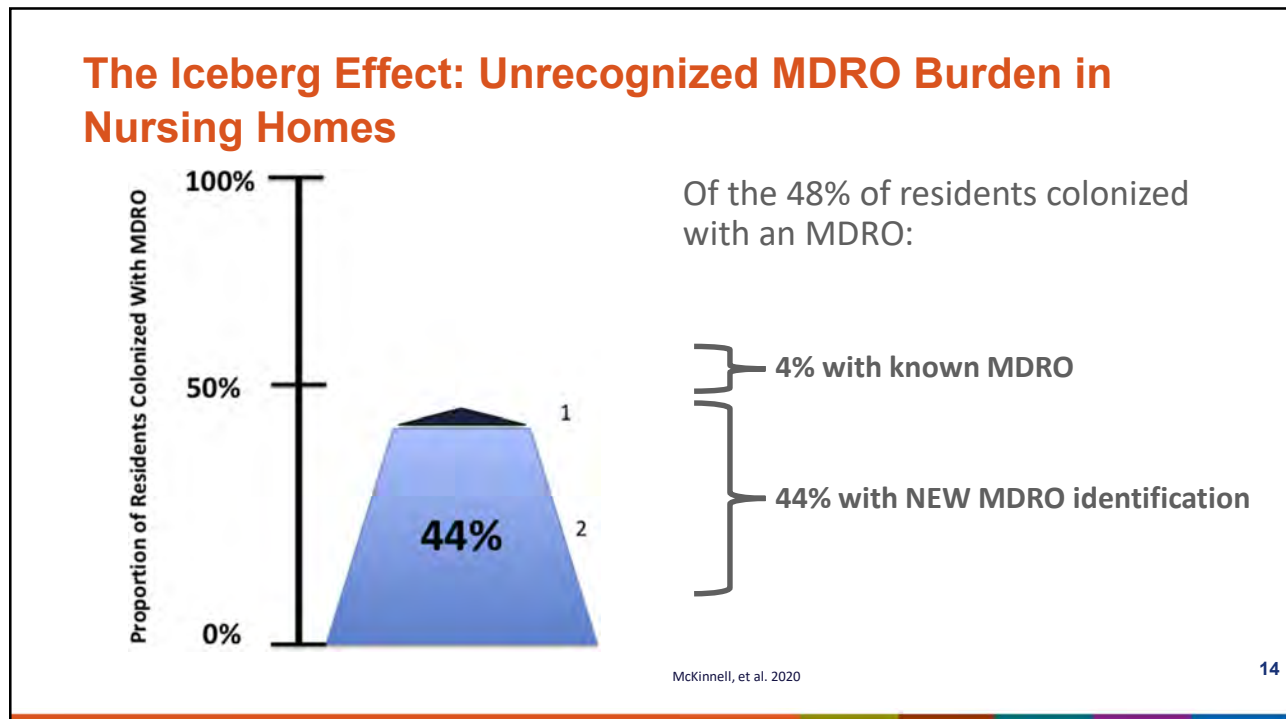
Larry required a multimodal pain regimen that led to acute urinary retention for which an indwelling catheter was placed.

Two weeks later, he was sent to the hospital and found to a catheter associated-UTI (CAUTI) due to carbapenem resistant *Pseudomonas* – the same organisms a neighboring roommate had cultured from a wound down the hall.

12



13



14

Case - Question 2

Which resident care activity carries the highest risk of MDRO transmission?

- a) Bathing
- b) Dressing Changes
- c) Physical Exam
- d) Glucose monitoring

15

Case - Question 2

Which resident care activity carries the highest risk of MDRO transmission?

- a) **Bathing**
- b) **Dressing Changes**
- c) Physical Exam
- d) Glucose monitoring

16

Infection Control & Hospital Epidemiology (2016), 39, 142-149
doi:10.1017/ice.2016.247

Original Article

Transmission of resistant Gram-negative bacteria to healthcare personnel gowns and gloves during care of residents in community-based nursing facilities

Natalia Blanco PhD¹, J. Kristie Johnson PhD², John D. Sorkin MD, PhD^{3,4}, Alison D. Lydecker MPH¹, Lauren Levy JD, MPH¹, Lona Mody MD, MS^{5,6} and Mary-Claire Roghmann MD, MS¹

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INFECTION CONTROL & HOSPITAL EPIDEMIOLOGY SEPTEMBER 2015, VOL. 38, NO. 9

ORIGINAL ARTICLE

Transmission of Methicillin-Resistant *Staphylococcus aureus* (MRSA) to Healthcare Worker Gowns and Gloves During Care of Nursing Home Residents

Mary-Claire Roghmann, MD, MS¹; J. Kristie Johnson, PhD²; John D. Sorkin, MD, PhD³; Patricia Langenberg, PhD⁴; Alison Lydecker, MPH¹; Brian Sorce, BS¹; Lauren Levy JD, MPH¹; Lona Mody, MD, MS^{5,6}

Antimicrobial Agents and Chemotherapy
AMERICAN SOCIETY FOR MICROBIOLOGY

Transmission of Resistant Gram-Negative Bacteria to Health Care Worker Gowns and Gloves during Care of Nursing Home Residents in Veterans Affairs Community Living Centers

Natalia Blanco,^a Lisa Pinesles,^a Allison D. Lydecker,^{a,b} J. Kristie Johnson,^{a,c} John D. Sorkin,^{a,d} Daniel J. Morgan,^{a,b} the VA Gown and Glove Investigators, Mary-Claire Roghmann,^{a,b} for the CDC Prevention Epicenters Program

Department of Epidemiology and Public Health, University of Maryland School of Medicine, Baltimore, Maryland, USA^a; VA Maryland Health Care System, Baltimore, Maryland, USA^b; Department of Pathology, University of Maryland School of Medicine, Baltimore, Maryland, USA^c; Claude D. Pepper Older Americans Independence Center, University of Maryland School of Medicine, Baltimore, Maryland, USA^d

Journal of Infection Control (2017) 42(3)

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American Journal of Infection Control

Journal homepage: www.elsevier.com/locate/ajic

Major Article

Transmission of methicillin-resistant *Staphylococcus aureus* to health care worker gowns and gloves during care of residents in Veterans Affairs nursing homes

Lisa Pinesles MA^{a,c}, Daniel J. Morgan MD, MS^{a,b}, Allison Lydecker MPH^{a,b}, J. Kristie Johnson PhD^{a,c}, John D. Sorkin MD, PhD^{a,d}, Patricia Langenberg PhD^{a,c}, Natalia Blanco PhD^a, Alan Lense MD^e, John Sevillec DO^f, Kalpana Gupta MD, MPH^g, Luci Leykam MD, MBA, MS^h, Jose Cadena MD^h, Nickie Lepcha MDⁱ, Mary-Claire Roghmann MD, MS^{a,b}

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17

Transmission of MRSA to Gowns and Gloves

L. Pinesles et al. / American Journal of Infection Control 43 (2017) 947-951

Activity	Gowns (%)	Gloves (%)
Any dressing change	35	35
Dressing resident	30	30
Bathing	25	25
Hygiene	20	20
Transfer of resident	15	15
Any device care or use	10	10
Diaper change	10	10
Toilet assist	10	10
Changing linens	10	10
OVERALL	10	10
Physical exam	10	10
Any medications	10	10
Any therapy	10	10
Glucose monitoring	10	10
Feeding	10	10

1544 observations from 94 residents

MRSA Total: 2,498 interactions among 207 residents

Transmission of Resistant Gram-negative Bacteria (R-GNB) to Gowns and Gloves

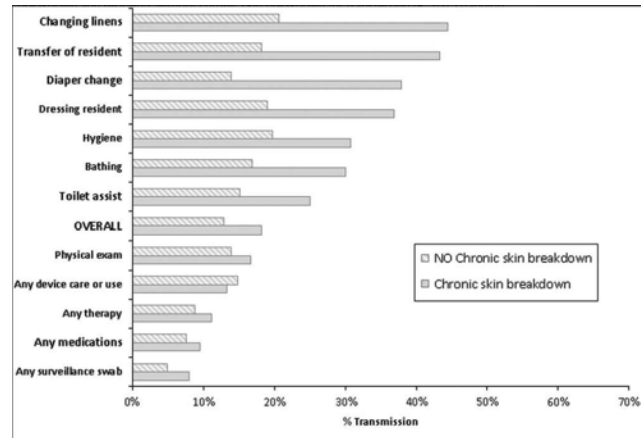
Blanco et al. ICHE 2018

Activity	Gloves (%)	Gowns (%)
Showering	35	35
Dressing change	30	30
Bathing	25	25
Hygiene	20	20
Diaper change	15	15
Feeding	10	10
Transfer the patient	10	10
Only feeding	10	10
Dressing the patient	10	10
Toilet assistance	10	10
Device care or use	10	10
Changing linens	10	10
Any surveillance	10	10
Physical exam	10	10
Any medication	10	10
Any therapy	10	10
Only medication	10	10
Physical therapy	10	10
Glucose monitoring	10	10

R-GNB Total: 1,489 interactions among 128 residents

18

MRSA Transmission to Gowns of Health Care Workers During Care of MRSA-Colonized Residents



Roghamann et al. ICHE 2015

19

19

The Need for EBP in Nursing Homes

- Per current Standard Precautions, gown and gloves are not indicated for many high-contact resident care activities (e.g., dressing, hygiene)
- Per current Contact Precautions, gown and gloves only indicated for residents with known MDRO, which would require prolonged isolation
- Minimal use of Standard Precautions/Contact Precautions

20

EBP Helps to Maintain Balance

- EBP offers a less restrictive approach to reducing MDRO spread long-term in a setting with a high (often unrecognized) MDRO burden
- Allows group activity participation
- May use communal dining
- No room restrictions



21

21

What are Enhanced Barrier Precautions?

22

What are Enhanced Barrier Precautions (EBP)?

A risk-based approach to PPE use designed to reduce the spread of multidrug-resistant organisms (MDROs)

The use of gown and gloves during **high-contact resident care activities** for residents at high risk of colonization with an MDRO to disrupt spread

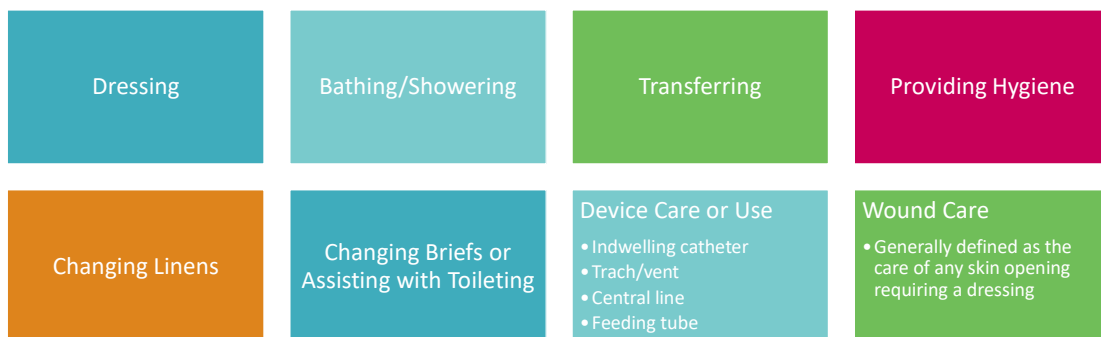
Expands the use of PPE beyond situations in which exposure to blood and body fluids is anticipated

Used in coordination with good infection prevention and control measures and stewardship

23

23

What are High-Contact Resident Care Activities?



24

24

Case Presentation Continued

Upon returning from the hospital, Larry started to improve. He began to ambulate, was without any skin breakdown, and was voiding spontaneously.

Unfortunately, Larry developed acute diarrhea. He tested positive for *C diff*.

25

25

Case – Question 3

Which infection prevention precautions should be implemented?

- a) Standard Precautions
- b) Droplet Precautions
- c) Contact Precautions
- d) Airborne Precautions
- e) Enhanced Barrier Precautions

26

26

Case – Question 3

Which infection prevention precautions should be implemented?

- a) **Standard Precautions**
- b) Droplet Precautions
- c) **Contact Precautions**
- d) Airborne Precautions
- e) Enhanced Barrier Precautions

27

27

When Should I Use Enhanced Barrier Precautions?

Residents with any of the following:

- Infection or colonization with an MDRO when *Contact Precautions do not apply*
- Wounds
- Indwelling medical devices (e.g., central line, urinary catheter, feeding tube, tracheostomy, ventilator)

28

28

What Does “When Contact Precautions do not apply” Mean?

Contact Precautions should be used for all residents infected or colonized with an MDRO who also have:

- Presence of acute diarrhea
- Draining wounds or other sites of secretions or excretions that are unable to be covered or contained
- For a limited time period on units or in facilities during an investigation of a suspected or confirmed MDRO outbreak

Residents who have another infection or condition for which Contact Precautions is recommended on Appendix A

29

29

What MDROs are Included with EBP?

Examples of MDROs Targeted by CDC:

- Pan-resistant organisms
- Carbapenemase-producing carbapenem-resistant Enterobacterales
- Carbapenemase-producing carbapenem-resistant *Pseudomonas* species
- 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*

30

30

Enhanced Barrier Precautions (EBP)

Use EBP when performing high-contact resident care activities and for residents who meet criteria for the use of EBP

- ✓ Includes the use of gown and gloves
- ✓ Resident does not need a private room
- ✓ Resident may participate in communal activities and is not restricted to room
- ✓ Intended to be used for the resident's entire length of stay in the facility

31

31

HICPAC Work Group

Goal

- To inform HICPAC on optimal strategies to prevent HAIs in long-term care and post-acute care settings

Charge

- The workgroup is initially charged with providing recommendations to HICPAC on the care of nursing home populations and the implementation and scope of Enhanced Barrier Precautions.

Available from: <https://www.cdc.gov/hicpac/workgroup/EnhancedBarrierPrecautions.html>



Consideration for Use of Enhanced Barrier Precautions in Skilled Nursing Facilities

June 2021

Preface

The Healthcare Infection Control Practices Advisory Committee (HICPAC) is a federal advisory committee chartered to provide advice and guidance to the Centers for Disease Control and Prevention (CDC) and the Secretary of the Department of Health and Human Services (HHS) regarding the practice of infection control and strategies for surveillance, prevention, and control of healthcare-associated infections, antimicrobial resistance and related events in United States healthcare settings. At the November 2019 HICPAC meeting, CDC asked HICPAC for input on topics related to the care of nursing home populations and the implementation and scope of Enhanced Barrier Precautions (EBP).

HICPAC formed a workgroup to develop this input. The Long-Term Care/Post-Acute Care (LTC/PAC) Workgroup provided updates and obtained HICPAC feedback at the November 2020, March 2021, and June 2021 HICPAC Meetings. At the June 2021 meeting, HICPAC voted to finalize the white paper based on expert opinion for broader use of EBP beyond targeted multidrug-resistant organisms, including pathogens that affect every nursing home in the United States such as *S. aureus* (both methicillin sensitive and resistant).

Executive Summary

1. Multidrug-resistant organism (MDRO) transmission is common in skilled nursing facilities, contributing to significant morbidity and mortality for residents and increased costs for the health care system.
2. Enhanced Barrier Precautions (EBP) is an approach of targeted gown and glove use during high contact resident care activities, designed to reduce transmission of *S. aureus* and MDROs.
3. 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.
4. Effective implementation of EBP requires staff training on the proper use of personal protective equipment (PPE) and the availability of PPE with hand hygiene products at the point of care.

32

32

Nursing Homes that Implemented EBP

- Feasible to introduce targeted use of gown and gloves¹
- Targeted gown and glove use decreased rate of *S. aureus* acquisition¹
- Nursing homes that introduced a multimodal targeted infection prevention program, including barrier precautions saw a decrease in overall MDRO prevalence density, a lower rate of MRSA acquisitions, and a reduction in catheter-associated urinary tract infections²
- Multicomponent intervention, including EBP and CHG bathing saw reduction in overall MDRO prevalence in the intervention group compared to the control group, as well as marked reductions in room environmental contamination with any MDRO and VRE³

1. Lydecker AD, et al. *ICHE* 2020 Oct 20:1-7. doi: 10.1017/ice.2020.1219.
2. Mody, L, et al. *JAMA Intern Med.* 2015 May 1; 175(5): 714–723. doi:10.1001/jamainternmed.2015.132
3. Mody L, et al. *JAMA Netw Open.* 2021;4(7):e2116555. doi:10.1001/jamanetworkopen.2021.16555

33

Lessons Learned about EBP Implementation

34

Lessons Learned from a 10-facility wide collaboration

- Facilities were short term, long-term, or ventilator units
- EBP criteria:
 - Colonization or infection with any MDRO
 - Wounds and/or indwelling medical devices

Project Plan

- 2-4 weeks for implementation
- 3 months of intervention

Special appreciation for Linda Behan for her work on this project

35

35

Implementation – Step 1: Getting Buy-In

- Leadership
- Staff
- Explaining EBP
 - Targeted use of gown and gloving
- Potential Benefits
 - Limiting spread of MDROs
 - Fewer infections/hospitalizations
 - Less restrictive to the resident
 - Fewer cohorting demands
- Potential Costs
 - Higher PPE expenses
 - Reduced efficiency in staff workflow

36

36

Implementation – Step 2: Selecting an Implementation Method

- Need for QAPI (Quality Assurance and Performance Improvement) utilizing PDSA (Plan-Do-Study-Act)
- Consider a EBP subcommittee

The PDSA Cycle for Learning and Improvement



37

37

Implementation – Step 3: Developing an Implementation Plan

- Plan out the specific details
- Consistently review progress
- Obtain outcome measures
- Staff training and education
- Communication and education for residents, families and visitors
- Precaution Signs
- Maintaining supply of PPE and isolation carts
- Location of carts
- Location of ABHR
- Location of disinfectant wipes
- Reviewing progress in QAPI meetings
- Identifying residents for EBP
- Placing residents on EBP/Contact precautions
- Documentation

38

38

Example of PPE section of Implementation Plan

<ul style="list-style-type: none"> Determine current PPE on hand (gowns – in universal and extra large size, gloves – all sizes, face protection – masks, goggles, face shields) Review current storage of PPE in central supply space. Is the space adequate for larger quantities of PPE – gowns specifically? Determine who will stock the PPE to the carts on the units and frequency to ensure products are available each shift. <p>9. Walk the halls. Determine location sites for isolation/PPE carts on each unit based on the location of patients placed on Enhanced Barrier or Contact Precautions</p> <ul style="list-style-type: none"> Determine the frequency, process, and person(s) responsible for cleaning and disinfection the isolation carts in between patient use Determine need to purchase additional PPE carts on wheels and schedule of purchasing <p>10. Determine locations of ABHR dispensers in patient rooms and/or in hallways for</p>		<p>Consider egress in hallways, location of red emergency power outlets in determining location of carts</p> <p>PPE must be readily (immediately) accessible to staff</p> <p>Carts must be on wheels, so are not permanent fixtures in the hallway, but are easily movable</p> <p>Consider ease of use and workflow</p>
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39

39

CDC Resources

- Pre-Implementation Tool
- Observations Tool
 - Excel Summary Spreadsheet
- Short PowerPoint Presentation
- Letter to Residents, Families, Friends, Volunteers
- Letter to Nursing Home Staff
- Letter to Leadership

Pre-Implementation Tool—Enhanced Barrier Precautions (EBP) (For use in Skilled Nursing Facilities/Nursing Homes only)

This NEW tool is designed to be used prior to implementation of EBP in your facility (either a unit, wing, or entire facility) as a guide for developing a successful plan for the implementation of EBP during high-contact resident care activities. It is intended for use in skilled nursing facilities/nursing homes.

This tool can be customized to meet facility-specific needs. EBP can be implemented in a manner that works best for your facility. While implementation of EBP for all residents who meet criteria is the goal, this may not initially be feasible for your facility. If, during the development of your implementation plan, challenges arise for facility-wide implementation, you may choose to implement EBP on a unit or wing first, preferably one where most residents would meet criteria for the use of EBP (e.g., residents with indwelling medical devices, wounds, or known MDRO infection or colonization).

HCP can reduce personal protective equipment (PPE) consumption by bundling multiple high-contact resident care activities (e.g., changing briefs, assisting with toileting, bathing/showering and providing hygiene could be bundled with changing linens).

Facility Name: _____

Date of Assessment: _____

1. Does your facility currently have a developed timeline for implementation of EBP?

- Yes
- No
- Unknown

If yes, when do you expect to begin implementation?

- In 3–4 weeks
- In 1–2 months
- In >2 months

2. If question 1 is answered "Yes", have you developed a policy and procedure document for the use of EBP?

- Yes
- No
- Unknown

If no, what challenges are you having with the development of a policy and procedure document?

- Staffing shortages
- Leadership input
- Other, please specify: _____

3. Does your facility currently have an interdisciplinary team (IDT) that manages facility infection prevention and control practices?

- Yes
- No
- Unknown

40

40

Staff Comments – Change in Perspectives

November

"I'm always going to have to put this on?
It's too much to put on each time."

December

CNA "Time consuming, takes away from prompt response and time with residents."

IP "Feels like everyone being admitted has an MDRO."

January

IP " No residents refused; they like the extra protection. Staff have incorporated into their workflow."

February

CNA "In the beginning, it was hard, had to go in-and-out of room because I forgot something. But then I got used to it and it **makes me plan ahead** – what am I going to need, not it's not bad and it's not adding time."

February

IP "Resident's families coming in expecting precautions because used in hospital"

Resident "Staff wears gowns and gloves during care, doesn't make me feel bad."

41

41

Common Issues

PPE

- Concern about time spent donning/doffing PPE
 - Planning ahead and bundle care
- Increase waste
 - More frequent collections
 - Larger bins
- Costs difficult to predict in advance, but start up costs may be high

Infection Preventionist

- **Infection Preventionist face many competing demands**
 - Plans of correction
 - State surveys
 - Communicable disease outbreaks
 - Other program implementation
 - Staffing concerns

42

42

EBP Pilot – Outcomes: Meeting EBP criteria

Center Description	Met EBP Criteria
Center #1: • Mostly long-stay residents	66/238 = 28% *20 (30% met >1 criteria)
Center #2: • Short-stay only	10/110 = 9% *No residents met >1 criteria
Center #3: • Provides ventilator services • Mix of long- and short-stay residents	54/130=42% *27 (50% met >1 criteria)

Of 319 residents who met criteria for EBP:

Indication	Number of EBP Total = 319	Percentage
Wounds	138	43%
Indwelling Device	149	47%
Novel/Target Organism	12	4%
Any other MDRO	141	44%

43

43

EBP Pilot – Take Aways

- EBP implementation is possible!
 - Have a detailed implementation plan
 - Expect surprises
 - Buy-in is critical
 - Communication is key
- EBP utilization varies by facility matching resident population
 - Short stay < Long stay < ventilator

44

44

Where do we go from here?

45

EBP- Unanswered Questions

- How can we better risk stratify residents who would most benefit from EBP?
- Is there a role for EBP in other health care settings?
- How does EBP impact viral transmission, particularly respiratory pathogens?
- What are the cost-benefit implications of EBP? How can the cost be spread to all stakeholders who may benefit?
- What other infection control strategies can be synergistic with EBP?

46

46

We Want to Hear from YOU

1. What barriers do you anticipate for EBP in your facility?
2. Most importantly, what support/solutions do you need?

47

THANK YOU

- Questions?

48

Additional CDC Resources

- Pre-Implementation Tool
- **Observations Tool**
 - Excel Summary Spreadsheet
- Short PowerPoint Presentation
- Letter to Residents, Families, Friends
- Letter to Nursing Home Staff
- Letter to Leadership

Enhanced Barrier Precautions (EBP) Implementation—Observations Tool (For use in Skilled Nursing Facilities/Nursing Homes only)

This NEW tool should be used only after you have established the use of Enhanced Barrier Precautions (EBP) in your facility (either in a unit, wing, or entire facility), and can be customized to meet the needs of the skilled nursing facility/nursing home. This tool is designed to support the conducting of observations of healthcare personnel (HCP) using EPB during high-contact resident care activities as a part of auditing and feedback. Responses should refer to current practices.

Facility Name: _____
Date of Assessment: _____

Observations

In general, these observations should be conducted covertly (i.e., HCP are not aware they are being observed), and the observer should collect information on as many EBP practices as feasible across a variety of HCP types and care units (if EBP has been implemented in more than one unit). While the observer should aim to assess as many of the listed elements as possible, often, only partial observations can be made, such as only observing a HCP don (put on) but not doff (take off) personal protective equipment (PPE). However, this can still provide valuable information on overall EBP practices in a facility.

1. Title or role of person conducting observation

- Nurse (RN, LVN, LPN)
- Nurse—Unit manager or above
- Nurse Practitioner/Physician Assistant (NP/PA)
- Wound care staff
- Administrative staff
- Student (nurse, physician, other)
- Certified Nursing Assistant/Patient Care Associate/Patient Care Technician (CNA/PCA/PCT)
- Physician
- Infection Preventionist
- Housekeeping/Environmental Services Staff
- Other, please specify: _____

2. Specify, as applicable, where the EBP observation occurred

- Unit: _____
- Room: _____
- Bed identification (ex. A, B, 1, 2) if multiple beds per room: _____

3. Criteria for the use of EBP (Select all that apply)

- Wound
- Indwelling medical device—Type: _____
 - Central line/Peripherally inserted central catheter (PICC)

Additional CDC Resources

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 - **Excel Summary Spreadsheet**
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- Letter to Nursing Home Staff
- Letter to Leadership

Enhanced Barrier Precautions (EBP) Implementation - Observations Tool (For use in Skilled Nursing Facilities / Nursing Homes only)

Observation Overview	
Unit:	ENTER DATE
Date Range:	range of observations
Total Number of Observations:	0
Number of Observations Summarized Below:	0

Is there a Filter applied to the data? **No**
**Filtering described in the Instructions tab*

Title or role of person conducting observation :	Number of Observation	Percent of Observation
Nurse (RN, LVN, LPN)	0	
Nurse - Unit Manager or above	0	
Nurse Practitioner/Physician Assistant (NP/PA)	0	
Certified Nursing Assistant/Patient Care Associate/Patient Care Tech (CNA/PCA/PCT)	0	
Physician	0	
Infection Preventionist	0	
Wound Care staff	0	
Administrative Staff	0	
Housekeeping / EVS	0	
Student	0	
Other	0	

Title or role of person providing high-contact resident care (person being observed) :	Number of Observation	Percent of Observation
Emergency Medical Service Personnel	0	
Nurse (RN, LVN, LPN)	0	
Nursing Assistant (CNA, PCT, PCA)	0	
Licensed Provider (MD, DO, DDS, Podiatrist, NP, PA)	0	
Physical/Occupational/Speech Therapist	0	
Phlebotomist/Lab technician	0	
Skilled/Personal Caregiver (Hired)	0	
Other contractual staff not employed by facility	0	
Student	0	
Other/unknown, please specify:	0	

Keeping Residents Safe – Use of Enhanced Barrier Precautions

Additional CDC Resources

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A message from:

Dear Residents, Families, Friends, and Volunteers:

You may have noticed new signs on some doors that say "Enhanced Barrier Precautions" and staff wearing gowns and gloves more often. We're doing this based on new recommendations from the Centers for Disease Control and Prevention to protect our residents and staff from germs that can cause serious infections and are hard to treat. You may have heard these germs called multidrug-resistant organisms or MDROs in the news.

Studies have shown that more than 50% of nursing home residents have these germs on or in their body, especially in places where the skin is broken, such as wounds or insertion sites of medical devices like feeding tubes. Most of the time people never know they are carrying these germs but under certain conditions they can enter the body and cause serious infections.

Fortunately, there are many things we can do to keep these germs from spreading, but we need your help! Two important practices are:

1. **Cleaning our hands.** Alcohol-based hand sanitizer can kill these germs and keep us from spreading them with our hands. This is why we remind you and your visitors to frequently clean your hands.
2. **Using gowns and gloves.** Since we can't wash our clothes between caring for residents, gowns and gloves help keep these germs from getting on our clothes and spreading to others when we are having close contact with residents. This is why you might see us wearing a gown and gloves when we are performing transfers or other activities involving a lot of contact with a resident. Just because we are wearing a gown and gloves doesn't mean that a resident is carrying one of these germs. We also wear them to protect residents who might be more vulnerable to developing a serious infection if exposed to these germs. We will also wear them if we expect a care activity to be messy, like if we are changing a dressing on a wound.

To support these practices, you will see more alcohol-based hand sanitizer dispensers, carts to hold clean gowns and gloves, and trash cans so we can change gowns and gloves between residents. You will also see more signs to help remind staff when they should be wearing gowns and gloves.

We are always happy to answer any questions you might have about actions we are taking to protect our residents and staff and appreciate your support!

Please contact us with additional questions at:

Sincerely,

51

51

Help Keep Our Residents Safe – Enhanced Barrier Precautions in Nursing Homes

Additional CDC Resources

- Pre-Implementation Tool
- Observations Tool
 - Excel Summary Spreadsheet
- Short PowerPoint Presentation
- Letter to Residents, Families, Friends, Volunteers
- Letter to Nursing Home Staff
- Letter to Leadership

A message from:

Dear Valued Staff:

You will soon see an increase in the circumstances when we are asking you to wear a gown and gloves while caring for residents. This is based on new recommendations from the Centers for Disease Control and Prevention to protect our residents and staff from multidrug-resistant organisms (MDROs), which can cause serious infections and are hard to treat. These new recommendations are called Enhanced Barrier Precautions, or EBP.

WHY are we implementing Enhanced Barrier Precautions at this facility?

Studies have shown that more than 50% of nursing home residents have MDROs on or in their body, especially in wounds or medical devices like urinary catheters. Most of the time people never know they are carrying these germs, but under certain conditions they can cause serious infections.

These germs can be transferred from one resident to another on staff hands, if they aren't cleaned between caring for residents, and on staff clothing during activities involving a lot of physical contact with the resident. A gown and gloves can keep these germs from getting on staff clothing and, in combination with cleaning hands with alcohol-based hand sanitizer, can prevent transfer to other residents.

This approach focuses our efforts on the residents and activities that pose highest risk for spread of MDROs.

WHAT are Enhanced Barrier Precautions?

Enhanced Barrier Precautions require staff to wear a gown and gloves while performing high-contact care activities with all residents who are at higher risk of acquiring or spreading an MDRO.

These include the following residents:

- Residents known to be infected or colonized with an MDRO;
- Residents with an indwelling medical device including central venous catheter, urinary catheter, feeding tube (PEG tube, G-tube), tracheostomy/ventilator regardless of their MDRO status;
- Residents with a wound, regardless of their MDRO status

High-contact resident care activities where a gown and gloves should be used, which are often bundled together as part of morning or evening care, include:

- Bathing/showering,
- Transferring residents from one position to another (for example, from the bed to wheelchair),
- Providing hygiene,
- Changing bed linens,
- Changing briefs or assisting with toileting,
- Caring for or using an indwelling medical device (for example, central venous catheter, urinary catheter, feeding tube care, tracheostomy/ventilator care),
- Performing wound care (for example, any skin opening requiring a dressing)

52

52

Understanding Enhanced Barrier Precautions

Additional CDC Resources

- Pre-Implementation Tool
- Observations Tool
 - Excel Summary Spreadsheet
- Short PowerPoint Presentation
- Letter to Residents, Families, Friends, Volunteers
- Letter to Nursing Home Staff
- Letter to Leadership

Dear _____:

We understand the last few years have not been easy and we know how important the overall well-being of your staff and residents are to you. With resident safety, health, and well-being in mind, we want to introduce you to an infection prevention strategy called Enhanced Barrier Precautions (EBP). The Centers for Disease Control and Prevention (CDC) has recently updated their recommendations for an effective response to serious antibiotic resistant organisms. This guidance now includes EBP, which focuses on the targeted use of gown and gloves during high-contact resident care activities for residents at highest risk for colonization or infection with resistant organisms. Resistant organisms can cause serious infections, are difficult to treat, and can spread rapidly throughout nursing homes. Preventing their transmission to others is an important public health priority.

Why should stopping the spread of resistant organisms be a focus for you and your facility?

Residents in nursing homes today frequently require higher levels of care and support than in past decades. These residents often need more hands-on, close contact care, and studies have shown that most transmission of resistant organisms occurs during this type of close care. Studies have also shown that nearly 50% of nursing home residents have a resistant organism in or on their body and that their caregivers are frequently unaware that this is the case. In light of this, caregivers might not use the appropriate precautions to protect themselves and other residents when performing care. By using EBP, you can help reduce the morbidity, mortality, and hospitalization that can be caused by the transmission of resistant organisms.

What are Enhanced Barrier Precautions?

When using EBP, facility staff members wear a clean gown and gloves while performing high-contact resident care activities with residents who are at increased risk of carrying a resistant organism. These include all residents with any of the following:

- Known infection or colonization with a resistant organism when Contact Precautions do not otherwise apply (for more information see below)
- Wounds or indwelling medical devices (e.g., central line, urinary catheter, feeding tube, tracheostomy/ventilator)

The resistant organisms for which the use of EBP applies are based on local epidemiology (local spread). At a minimum, they should include resistant organisms targeted by CDC, but can also include other epidemiologically important resistant organisms.*

Examples of resistant organisms targeted by CDC include:

- Pan-resistant organisms (i.e., resistant to most or all antibiotics or antifungals)
- Carbapenemase-producing carbapenem-resistant Enterobacterales (CP-CRE)
- Carbapenemase-producing carbapenem-resistant Pseudomonas spp. (CP-CRPA)
- Carbapenemase-producing carbapenem-resistant *Acinetobacter baumannii* (CP-CRAB)
- *Candida auris*

The high-contact resident care activities are typically bundled care activities that are provided either during the morning or evening care and include:

- Dressing
- Bathing/showering
- Transferring
- Providing hygiene
- Changing linens

53

53

Resources

Enhanced Barrier Precautions

Implementation of Personal Protective Equipment (PPE) Use in Nursing Homes to Prevent Spread of Multidrug-resistant Organisms (MDROs)

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

Frequently Asked Questions (FAQs) about Enhanced Barrier Precautions in Nursing Homes <https://www.cdc.gov/hai/containment/faqs.html>

Considerations for Use of Enhanced Barrier Precautions in Skilled Nursing Facilities

<https://www.cdc.gov/hicpac/workgroup/EnhancedBarrierPrecautions.html?msclkid=39038417aed311ec8c868e1e03c50297>

Enhanced Barrier Precautions Sign

<https://www.cdc.gov/hai/pdfs/containment/enhanced-barrier-precautions-sign-P.pdf> (English)

<https://www.cdc.gov/hai/pdfs/containment/spanish-enhanced-barrier-precautions-sign-P.pdf> (Spanish)

54

Resources

Educational Resources

Project Firstline

<https://www.cdc.gov/infectioncontrol/projectfirstline/healthcare/videos-graphics.html>

CDC Train: Infection Preventionist Training Course

<https://cdc.train.org/cdctrain/welcome>

Infection Prevention and Control Assessment Tool for Long-Term Care Facilities

<https://www.cdc.gov/infectioncontrol/pdf/icar/ltof.pdf>

Hand Hygiene

Hand Hygiene and Standard Precautions Course

<https://www.cdc.gov/handhygiene/training/interactiveEducation/>

Clean Hands Count for Healthcare Providers

<https://www.cdc.gov/handhygiene/providers/index.html>

55

Resources

Communication

Interfacility Transfer Form

<https://www.cdc.gov/hai/pdfs/toolkits/Interfacility-IC-Transfer-Form-508.pdf?msclkid=0dd6df40ac5911ec9ad0153afa2f9e30>

Contact Precautions Sign

<https://www.cdc.gov/infectioncontrol/pdf/contact-precautions-sign-P.pdf>
(English)

<https://www.cdc.gov/infectioncontrol/pdf/spanish-contact-precautions-sign-P.pdf> (Spanish)

State-Based Resources

State-based HAI Prevention Activities

<https://www.cdc.gov/hai/state-based/index.html>

56