Enhanced Barrier Precautions in Skilled Nursing Facilities

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Disclosures

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Presentations will not include any discussion of the unlabeled use of a product or a product under investigational use.

CDC did not accept commercial support for this continuing education activity.
Objectives

1. Describe the role their healthcare facility type plays in limiting further transmission throughout a jurisdiction.
   a. To describe scenarios appropriate for Transmission-Based Precautions (when to use Contact Precautions, Enhanced Barrier Precautions, and Standard Precautions)

2. Identify infection prevention and control practices they should implement at their healthcare facilities to prevent MDRO transmission.
   a. To describe Enhanced Barrier Precautions
   b. To describe which residents need Enhanced Barrier Precaution

3. Recognize current practices for communicating a patient/resident MDRO status both inside and outside their facility and identify key strategies for improving interprofessional care through clear multidisciplinary communication.
   a. To understand the use and significance of interfacility and intra-facility forms during transfers
Enhanced Barrier Precautions: What?
What is Enhanced Barrier Precautions?

• Use of gown and gloves during high-contact care activities for high-risk residents as a means to disrupt multidrug-resistant organism (MDRO) spread

• Expand the use of personal protective equipment (PPE) beyond situations in which exposure to blood and body fluids is anticipated

• Reduces the necessity for resident’s restriction to room
• Does **not** require a private room

• Gowns and gloves are recommended for **High-Contact Resident Care Activities**

• Residents are **not restricted** to their room

• Intended to be used for the entire length of resident’s stay in the facility
## Enhanced Barrier Precautions

<table>
<thead>
<tr>
<th>Recommended in</th>
<th>Not Currently Recommended in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Homes (NHs)</td>
<td>Acute Care Hospitals</td>
</tr>
<tr>
<td>Skilled Nursing Facilities (SNFs)</td>
<td>Long-Term Acute Care Hospitals</td>
</tr>
<tr>
<td></td>
<td>Assisted Living Facilities</td>
</tr>
<tr>
<td></td>
<td>Residential Care Facilities</td>
</tr>
<tr>
<td></td>
<td>Group Homes</td>
</tr>
</tbody>
</table>
## Enhanced Barrier Precautions

<table>
<thead>
<tr>
<th>Recommended for Residents With</th>
<th>Not Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wounds <em>regardless of MDRO colonization status</em></td>
<td>Resident with draining wounds</td>
</tr>
<tr>
<td>Infection or colonization with a novel or targeted MDRO <em>when Contact Precautions do not apply</em></td>
<td>On units or in facilities where ongoing transmission is documented or suspected</td>
</tr>
<tr>
<td>An indwelling medical device</td>
<td>Resident with acute diarrhea</td>
</tr>
<tr>
<td></td>
<td>Resident with sites of secretions or excretions that are unable to be covered or contained</td>
</tr>
</tbody>
</table>
Enhanced Barrier Precautions: Why?
Why Do We Need Enhanced Barrier Precautions?

• The potential to disrupt MDRO transmission in a less restrictive manner

• Focusing only on residents with active infection fails to address the continued risk of transmission from residents with MDRO colonization, which can persist for long periods of time (e.g., months), and result in the silent spread of MDROs

• Resident-to-resident pathogen transmission in SNFs occurs, in part, via healthcare personnel, during resident care activities
Why Do We Need Enhanced Barrier Precautions?

• Residents in SNFs are disproportionately affected by MDRO infections

• Allows for a more effective response to serious antibiotic resistant threats

• Residents with complex medical needs are at higher risk for acquiring MDROs

• Standard Precautions often have not been successfully implemented in nursing home settings
MDRO Contamination of NH Caregiver Hands and Clothes During Common Activities

- Evaluated different interactions between staff and MDRO colonized residents
- Assisting with linen change, transfers, and personal hygiene had highest likelihood of contamination

(Roghmann, et al., 2015; Blanco et al., 2017; Blanco et al., 2018)
Why Do We Need Enhanced Barrier Precautions?

Resident Quality of Life

Resident Safety
Nursing home settings provide opportunities for transmission
Older adults are at high risk for infections with MDROs
Risk Factors for Colonization with MDROs

- Indwelling medical device (urinary catheter, PEG tube, trach, central line)
- Lower functional status
- Presence of wounds or decubitus ulcers
- Antibiotic use in prior 3 months
- Fluoroquinolone use
- History of hospitalization
- Older age
- Comorbid medical conditions

(Mody et al., 2007; Cassone and Mody, 2015)
### MDRO Prevalence

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>% With Known MDRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNF (n = 14)</td>
<td>17%</td>
</tr>
<tr>
<td>vSNF (n = 4)</td>
<td>20%</td>
</tr>
<tr>
<td>LTACH (n = 3)</td>
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(McKinnell, et al., 2019)
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</tr>
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(McKinnell, et al., 2019)
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Enhanced Barrier Precautions: How?
How to be Successful with Implementing EBP

• Know your residents
  • MDRO Status (if known)
    • Current residents and new admissions

• Indwelling Medical Devices
  • Central line, urinary catheter, G/NG/PEG tube, tracheostomy, and ventilator

• Wound(s) requiring a dressing

G – Gastrostomy, NG – Nasogastric, PEG – Percutaneous Endoscopic Gastrostomy
How to be Successful with Implementing EBP

• Hand Hygiene

• Auditing

• PPE Use

• Environmental Cleaning and Disinfection

• Communication
Hand Hygiene

• Use Alcohol-Based Hand Sanitizer prior to and after performing any hands-on activity with resident
  • Including before and after donning and doffing gloves

• Recommendation to use soap and water if hands are visibly soiled, before eating, and after using the restroom

https://www.cdc.gov/handhygiene/providers/index.html
Auditing

• Audit consistently appropriate use and compliance with hand hygiene, PPE don/doff, and environmental cleaning and disinfecting

• Can be either paper or electronic documentation

• Share your results and provide real-time feedback
PPE Use

- **PPE Use**
  - Ensure staff understand when and what types of PPE are recommended during activities with residents
  - Ensure appropriate storage and accessibility of PPE at point of care locations
Environmental Cleaning and Disinfection

• Effective cleaning and disinfection of facility surfaces and equipment is critical

• Focus on daily cleaning and disinfection of high touch surfaces

• Clean and disinfect non-disposable, non-dedicated (i.e., shared between patients) equipment after each use
Environmental Cleaning and Disinfection

- Ensure you are using the right cleaning/disinfection product for the correct contact time (dwell time)

- Contact time: The amount of time a disinfectant must remain wet on a surface to be effective

- Know your facility and regional epidemiology

- Establish a “who cleans what” list for all staff
Communication

• Ask the transferring unit, hall, facility for MDRO history and current MDRO infection or colonization

• Use appropriate recommended signs for residents requiring Transmission-Based Precautions or Enhanced Barrier Precautions
Communication

• Health Departments

• Within your facility

• Other healthcare providers and facilities

• Your residents, staff, and families
Public health departments track and alert health care facilities to antibiotic-resistant or *C. difficile* germs coming from other facilities and outbreaks in the area.

Facilities and public health authorities share information and implement shared infection control actions to stop spread of germs from facility to facility.
Educational Resources

• Don’t Reinvent the Wheel
  • Use the resources available

• Provide numerous options for learning (auditory, visual, tactile)

• Give and receive feedback
Limiting Further Transmission

When to Use Standard Precautions, Transmission-Based Precautions, or Enhanced-Barrier Precautions
Standard Precautions
Used in all settings with all residents

- **Gloves**
  - Use when anticipating touching blood, body fluids, secretions, excretions, contaminated items, and touching mucous membranes and non-intact skin

- **Gowns**
  - Use during any procedure and resident care activity when contact anticipated with blood/body fluids, secretions, or excretions

- **Mask, goggles, or face shield**
  - Use during any activity likely to generate splashes or sprays with blood, body fluids, secretions, or excretions
Contact Precautions

Used in all settings with specific residents for all room entries

• Includes the use of gowns and gloves
• C. difficile, scabies, norovirus, and other conditions where Contact Precautions is recommended
• Presence of acute diarrhea, draining wounds, or other sites of secretions or excretions that are unable to be covered or contained
• On units where ongoing transmission is documented or suspected
• Resident should be placed in a private room*

• Gowns and gloves are recommended for every entry into the room and for all activities being performed in the room

• Residents should be restricted to their room except for medically necessary movement

• Intended to be time-limited
  • to reduce transmission during a limited infectious period or period of high risk for transmission (e.g., acute care hospital stay)

*When a private room is unavailable, some residents may be cohorted.
**Enhanced Barrier Precautions (EBP)**

Used in **NH settings** with **specific resident situations** and only during **High-Contact Resident Care Activities**

- Includes the use of gowns and gloves
- Infection or colonization with a novel or targeted MDRO when **Contact Precautions do not apply**
- Wounds/and or indwelling medical devices **regardless of MDRO colonization status** who reside on a unit or wing where a resident known to be infected or colonized with a novel or targeted MDRO resides
- Does **not** require a private room
- Gowns and gloves are recommended for High-Contact Resident Care Activities
- Residents are **not restricted** to their room
- Intended to be used for the resident's entire length of stay in the facility
Scenarios for TBP or EBP

Resident of a nursing home with acute diarrhea x1wk. He has a tracheostomy and colonization with vancomycin-resistant enterococci (VRE). Acute diarrhea resolves and does not recur.

- What type of precautions, if any, would you recommend for the resident while he has acute diarrhea?
- What type of precautions, if any, should be used after resolution of the acute diarrhea?
- How long should the resident be on precautions, if any?
Scenarios for TBP or EBP

Resident of a nursing home has had an indwelling urinary catheter to promote wound healing. She has a history of being colonized with carbapenem-resistant *Escherichia coli* (*E. coli*). The wound is now healed, and the indwelling urinary catheter has been discontinued. The resident has no other wounds or indwelling medical devices.

- What type of precautions, if any, would you recommend for the resident?
- How long should the resident be on precautions, if any?
Scenarios for TBP or EBP

Do residents placed on Enhanced Barrier Precautions for a novel or targeted MDRO require placement in a single-person room?

- No. Single-person rooms should be prioritized for residents placed on Contact Precautions.
- Residents on EBP may share rooms with other residents.
- If there are multiple residents with a novel or targeted MDRO in the same facility, consider cohorting them together in one wing or unit to decrease the direct movement of HCP.
Enhanced Barrier Precautions – Not Recommended For:

• Residents of Long-Term Acute Care Hospitals, Assisted Living Facilities, Residential Care Facilities, or patients of Acute Care Hospitals

• Residents with acute diarrhea, unable to contain excretions or secretions

• Residents with conditions where Contact Precautions are recommended to be used (i.e., *C. diff.*, scabies, norovirus)

• For facilities with ongoing MDRO transmission
Review of Enhanced Barrier Precautions (EBP) Pilot with Genesis
Genesis EBP Pilot: The Basics

EBP Criteria

• Colonization or infection with any MDRO
• Wounds and/or indwelling medical devices
• EBP implemented facility wide in a variety of different long-term care facilities

Create an implementation plan

• 2-4 weeks for implementation
• 3 months of intervention
Genesis EBP Pilot: The Basics

Outcomes

• Staff adherence to EBP
• Staff, resident, and family member feedback
• Description of residents meeting EBP criteria
• Change in hospitalization and infection
• Burden, including cost
Center Demographics

Total of 10 skilled nursing centers participated
  • 7 in Pennsylvania
  • 3 in Rhode Island

2 centers had mechanical ventilation units

9 centers had short stay/rehab units and traditional long-term care units

1 center was a PowerBack – all private rooms, total short stay

Number of beds per center ranged from 106 – 238
Implementation Plan

The PDSA Cycle for Learning and Improvement

**Plan**
- Objective
- Questions & predictions
- Plan to carry out: Who? When? How? Where?

**Do**
- Carry out plan
- Document problems
- Begin data analysis

**Study**
- Complete data analysis
- Compare to predictions
- Summarize

**Act**
- Ready to implement?
- Try something else?
- Next cycle

What’s next?

Did it work?

Let’s try it!

What will happen if we try something different?
## Implementation Guide

<table>
<thead>
<tr>
<th>Planning</th>
<th>Implementation as a standing item in QAPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and educating staff</td>
<td>Identifying residents with qualifying characteristics for placement on EBP</td>
</tr>
<tr>
<td>Education for residents, families, and visitors</td>
<td>Placement of residents on EBP or Contact Precautions</td>
</tr>
<tr>
<td>Communication</td>
<td>Documentation - line list, care plan</td>
</tr>
<tr>
<td>Ordering/stocking precautions signs</td>
<td></td>
</tr>
<tr>
<td>Supply of PPE and isolation carts</td>
<td></td>
</tr>
<tr>
<td>Location sites for isolation carts, ABHS dispensers, and disinfectant wipes</td>
<td></td>
</tr>
</tbody>
</table>
Welcome to Our Center!

We are committed to a culture of patient safety in this facility, from the nursing staff, to the administrative office, to the environmental services department. The infection prevention and control department would like to share with you some of the clinical practices we use to prevent the spread of germs here, at Genesis Healthcare, based on nationally recognized standards of care.

You will notice that our staff may wear personal protective equipment, or PPE, such as gowns and gloves for patient care, such as bathing, dressing, grooming, toileting and changing linens.

This is in accordance with CDC recommendations for certain standards of patient care and also as a result of a deeper commitment to protecting you or your loved one from the germs of the patient we last cared for.

Our staff take care of many patients, and like honeybees, if we are not careful, can transfer germs from patient to patient, just like a honey bee pollinates flowers in a field. We don’t want to be honeybees. We want to provide safe, effective and competent care for you or your loved one, by wearing the proper PPE to prevent the risk of transmission.

If you have any questions about this practice, please ask to speak to your nurse or the Infection Preventionist for this facility.
Thank you!

- Targeted education provided to:
  - Residents and their families
  - Nursing and Rehab staff
  - Environmental Services

- Inform:
  - Medical Providers
  - State Surveyors
Plan Your Workflow

**THINK**
- What residents am I assigned to?
- Are any residents on Transmission-Based Precautions?
- How do I organize my time?
- Which residents should I care for first?

**PLAN: BUNDLE**
- What supplies do I need to care for the resident?
- What PPE do I need to wear and when?
- How many glove changes do I anticipate?
- Are hand hygiene supplies readily available?
- In what order should I perform resident care tasks?

**DO**
- Bathing, dressing, transferring residents from beds to chairs and back, and wound/other procedures
- REMEMBER: Clean versus Dirty – you’ll need to change gloves and perform hand hygiene several times
Chapel Manor – Tara Winter, Center Executive Director

• While financials are important, she is more quality and customer driven
  • Resident and employee satisfaction is her focus
• Progressive leader
  • Make center different in the market
  • Take on the new and different
• Empty rooms
• Chapel Manor takes risks – opens door to develop partner relationships with hospitals and department of health
  • Capitalize on the opportunity
• Amazing team, especially nursing leadership, strong core team
• Found that if she says, “we can do it” and the team believes they can
Chapel Manor – Tara Winter, Center Executive Director

• Work together for the best result for the resident
  • COVID pointed out the strengths and weaknesses of the healthcare industry
  • Lesson learned – if we come together and work together and rather than in silos, we can benefit our residents
• Employees want to be challenged and engaged
  • Superior relationship with the Philadelphia DOH – very supportive
  • Embrace the DOH and they will embrace you
  • The DOH wants you to succeed
• Stressed to center employees
  • The city DOH reached out to them for their opinion and help
  • Pump staff up
Why did Residents meet EBP Criteria?

Number and Proportion of Residents Meeting EBP Criteria

<table>
<thead>
<tr>
<th>Indication</th>
<th>Number of Residents Total = 319</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wounds</td>
<td>138</td>
<td>43%</td>
</tr>
<tr>
<td>Indwelling Device</td>
<td>149</td>
<td>47%</td>
</tr>
<tr>
<td>Novel/Target Organism</td>
<td>12</td>
<td>4%</td>
</tr>
<tr>
<td>Any other MDRO</td>
<td>141</td>
<td>44%</td>
</tr>
</tbody>
</table>
What is the Proportion of Residents meeting EBP Criteria in Different Centers?

<table>
<thead>
<tr>
<th>Center Description</th>
<th>Met EBP Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Center #1:</strong></td>
<td></td>
</tr>
<tr>
<td>Mostly long-stay residents</td>
<td>66/238 = 28%</td>
</tr>
<tr>
<td>Short-stay unit</td>
<td></td>
</tr>
<tr>
<td>CENSUS = 238</td>
<td></td>
</tr>
<tr>
<td><strong>Center #2:</strong></td>
<td></td>
</tr>
<tr>
<td>Short-stay only</td>
<td>10/110 = 9%</td>
</tr>
<tr>
<td>Average LOS ≤ 2 weeks</td>
<td></td>
</tr>
<tr>
<td>CENSUS = 110</td>
<td></td>
</tr>
<tr>
<td><strong>Center #3:</strong></td>
<td></td>
</tr>
<tr>
<td>Provides ventilator services</td>
<td>54/130 = 42%</td>
</tr>
<tr>
<td>Mix of long- and short-stay residents</td>
<td></td>
</tr>
<tr>
<td>CENSUS = 130</td>
<td></td>
</tr>
</tbody>
</table>

- **Center #1:**
  - MDRO = 36 (55%)
  - Wound = 29 (44%)
  - Device = 23 (35%)
  - *20 (30% met >1 criteria)

- **Center #2:**
  - MDRO = 2 (20%)
  - Wound = 1 (10%)
  - Device = 7 (70%)
  - *No residents met >1 criteria

- **Center #3:**
  - MDRO = 32 (59%)
  - Wound = 24 (44%)
  - Device = 29 (54%)
  - *27 (50% met >1 criteria)
Costs

Increase in cost associated with increased use of PPE

• Start-up costs greater than maintenance costs
  • PPE storage carts, ABHS, gowns, gloves

• Costs may differ from actual utilization

• Challenging to predict PPE utilization; supply purchases may have been an overestimate

• Centers with more residents meeting EBP criteria have increased costs
Costs

Feedback from Administrators

• Spread out implementation due to budget constraints

• Unanticipated cost = Increased trash pickup (1 vent center)
### Comments and Feedback During Pilot

- **November comments initially given to IP** – “I’m always going to have to put this on? It’s too much to put on each time.”

- **December - CNE** – Time consuming, takes away from prompt response and time with residents, no residents voicing complaints – residents and families do not have a problem voicing concerns.

- **IP** - Feels like everyone being admitted has an MDRO.

- **February CNA** - In the beginning it was hard, had to go in/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 do and need, now it’s not bad and isn’t adding time.

- **Resident** – Doesn’t bother me. Did request clarification again as to why staff wearing PPE.

- **IP** - Patient’s families coming in expecting precautions because used in hospital.

- **Resident** – Staff wears gowns and gloves during care, doesn’t make me feel bad.

- **January from IP** - No residents refused; they like the extra protection. Staff have incorporated into their workflow.
Updates to Enhanced Barrier Precautions
Considerations for Use of Enhanced Barrier Precautions in Skilled Nursing Facilities

- 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
## Enhanced Barrier Precautions Updates

<table>
<thead>
<tr>
<th>2019 Public Health Response: Recommended for Residents (<a href="#">on the same unit</a> as the resident with novel/targeted MDRO) With</th>
<th>2021 Updates: Recommended for Residents (<a href="#">when Contact Precautions do not apply</a>) With</th>
</tr>
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<tr>
<td><strong>Wounds regardless of MDRO colonization status</strong></td>
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# Novel, Targeted, and Epidemiologically Important MDROs

## Examples of MDROs Targeted by CDC

<table>
<thead>
<tr>
<th>Pan-resistant organisms</th>
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</thead>
<tbody>
<tr>
<td>Carbapenemase-producing carbapenem-resistant Enterobacterales</td>
</tr>
<tr>
<td>Carbapenemase-producing carbapenem-resistant <em>Pseudomonas</em> spp.</td>
</tr>
<tr>
<td>Carbapenemase-producing carbapenem-resistant <em>Acinetobacter baumannii</em></td>
</tr>
<tr>
<td><em>Candida auris</em></td>
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## Additional epidemiologically important MDROs may include, but are not limited to

<table>
<thead>
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<th>Methicillin-resistant <em>Staphylococcus aureus</em> (MRSA)</th>
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<tr>
<td>ESBL-producing Enterobacterales</td>
</tr>
<tr>
<td>Vancomycin-resistant <em>Enterococci</em> (VRE)</td>
</tr>
<tr>
<td>Multidrug-resistant <em>Pseudomonas aeruginosa</em></td>
</tr>
<tr>
<td>Drug-resistant <em>Streptococcus pneumoniae</em></td>
</tr>
</tbody>
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Future Updates

- No longer focusing only on targeted or novel MDROs
- No longer focusing on outbreaks/public health response
- Expanding recommendations
Contacts

- D.C. Health
  - doh.hai@dc.gov

- Maryland
  - mdh.ipcovid@maryland.gov – Maryland HAI Group
  - mdphl.arln@maryland.gov – Mid-Atlantic Regional Lab

- Virginia
  - hai@vdh.virginia.gov

- Massachusetts
  - 24/7 Epidemiology Line with questions: 617-983-6800
CE Information for listening to this talk

COURSE : WC4526-040522 - Enhanced Barrier Precautions in Skilled Nursing Facilities - April 5, 2021 (Webcast)

Course Detail: https://tceols.cdc.gov/Course/Detail2/8511

Course Access Code: MDRO2022

CE Expiration Date: 05/09/2022

Instructions for Obtaining Continuing Education (CE)

In order to receive continuing education (CE) for WC4526-040522 - Enhanced Barrier Precautions in Skilled Nursing Facilities - April 5, 2021 (Webcast) please visit TCEO and follow these 9 Simple Steps before May 9, 2022.
Recording and slides

- The recording and slides will be posted to this website:

- CE is also available on demand for the recording if any of your colleagues who didn’t listen today would like to and receive CE in the future (see listed website for details)
Thank you

Any Questions?

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Resources

**Enhanced Barrier Precautions**

Implementation of Personal Protective Equipment (PPE) in Nursing Homes to Prevent Spread of Novel or Targeted Multidrug-resistant Organisms (MDROs) (Current)
[https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html](https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html)

Frequently Asked Questions (FAQs) about Enhanced Barrier Precautions in Nursing Homes (Current)
[https://www.cdc.gov/hai/containment/faqs.html](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](https://www.cdc.gov/hicpac/workgroup/EnhancedBarrierPrecautions.html?msclkid=39038417aed311ec8c868e1e03c50297)
Resources

Educational Resources

Project Firstline
https://www.cdc.gov/infectioncontrol/projectfirstline/healthcare/videos-graphics.html

CDC Train
https://cdc.train.org/cdctrain/welcome

Infection Prevention and Control Assessment Tool for Long-Term Care Facilities
https://www.cdc.gov/infectioncontrol/pdf/icar/ltcf.pdf
Resources

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
Resources

Personal Protective Equipment

Burn Rate Calculator – Version 2

NIOSH PPE Tracker App
https://www.cdc.gov/niosh/ppe/ppeapp.html
Resources

Environmental Cleaning and Disinfection

CDC Environmental Cleaning Checklist
https://www.cdc.gov/hai/pdfs/toolkits/Environmental-Cleaning-Checklist10-28-2010.doc

CDC Environmental Checklist for Monitoring Terminal Cleaning
https://www.cdc.gov/hai/pdfs/toolkits/Environmental-Cleaning-Checklist-10-6-2010.pdf

CDC Environmental Cleaning Evaluation Worksheet (Excel)
https://www.cdc.gov/hai/pdfs/toolkits/Environmental-Cleaning-Eval-Worksheet-10-6-2010.xls
Resources

Communication

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

State-Based Resources

State-based HAI Prevention Activities
https://www.cdc.gov/hai/state-based/index.html
References


References
