

Nursing Home Patient Safety Series: Infection Prevention and Control Hot Topics for Nursing Facilities



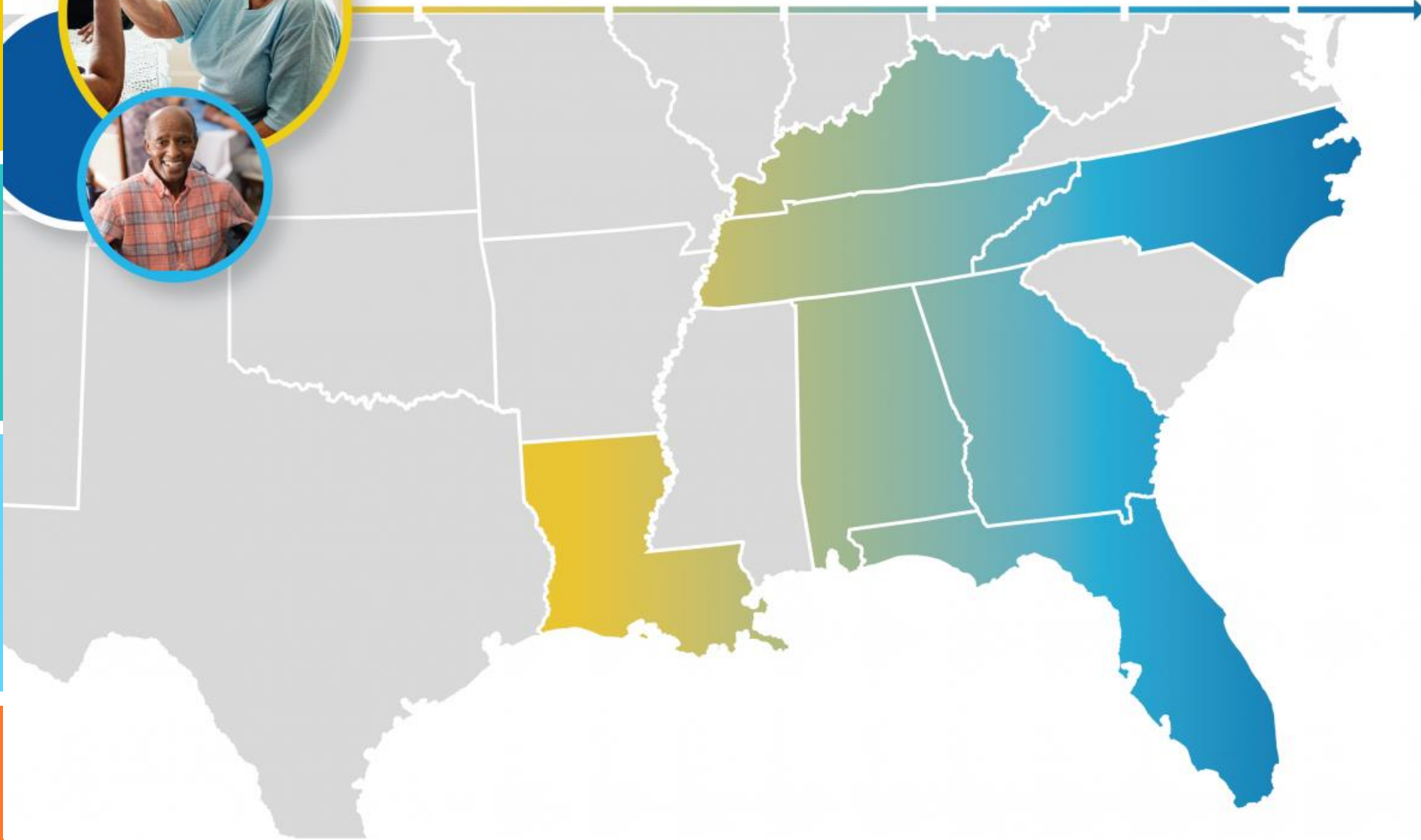
Presented by:
Erica Umeakunne, MSN, MPH, APRN, CIC

May 15, 2024

 **ALLIANT**
HEALTH SOLUTIONS

QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTER FOR MEDICARE & MEDICAID SERVICES
QUALITY IMPROVEMENT & INNOVATION GROUP

Making Health Care Better *Together*



About Alliant Health Solutions

Erica Umeakunne, MSN, MPH, APRN, CIC

INFECTION PREVENTION SPECIALIST

Erica is an adult gerontology nurse practitioner and infection preventionist with experience in primary care, critical care, health care administration and public health.

She was previously the interim hospital epidemiology director for a large Atlanta health care system and a nurse consultant in the Centers for Disease Control and Prevention's (CDC) Division of Healthcare Quality Promotion. At the CDC, she served as an infection prevention and control (IPC) subject matter expert for domestic and international IPC initiatives and emergency responses, including Ebola outbreaks and, most recently, the COVID-19 pandemic.

Erica enjoys reading, traveling, family time and outdoor activities.

Erica.Umeakunne@allianthealth.org







Objectives



- Discuss enhanced barrier precautions (EBP) as a strategy to prevent and control silent transmission in nursing facilities using clinical scenarios.
- Address frequently asked questions about EBP implementation.
- Examine strategies to reduce sepsis hospitalizations in nursing home residents.
- Review NHSN reporting requirements for nursing facilities.
- Share Alliant Health Solutions resources to support infection prevention and quality improvement initiatives.

Enhanced Barrier Precautions

- Enhanced Barrier Precautions (EBP) are an infection control intervention designed to reduce the silent transmission of resistant organisms. They employ targeted gown and glove use during high-contact resident care activities.
- EBP are indicated (when contact precautions do not otherwise apply) for residents with any of the following:
 - Wounds or indwelling medical devices, regardless of MDRO colonization status
 - Infection or colonization with an MDRO
- Effective implementation of EBP requires staff training on the proper use of personal protective equipment (PPE) and the availability of PPE and hand hygiene supplies at the point of care.

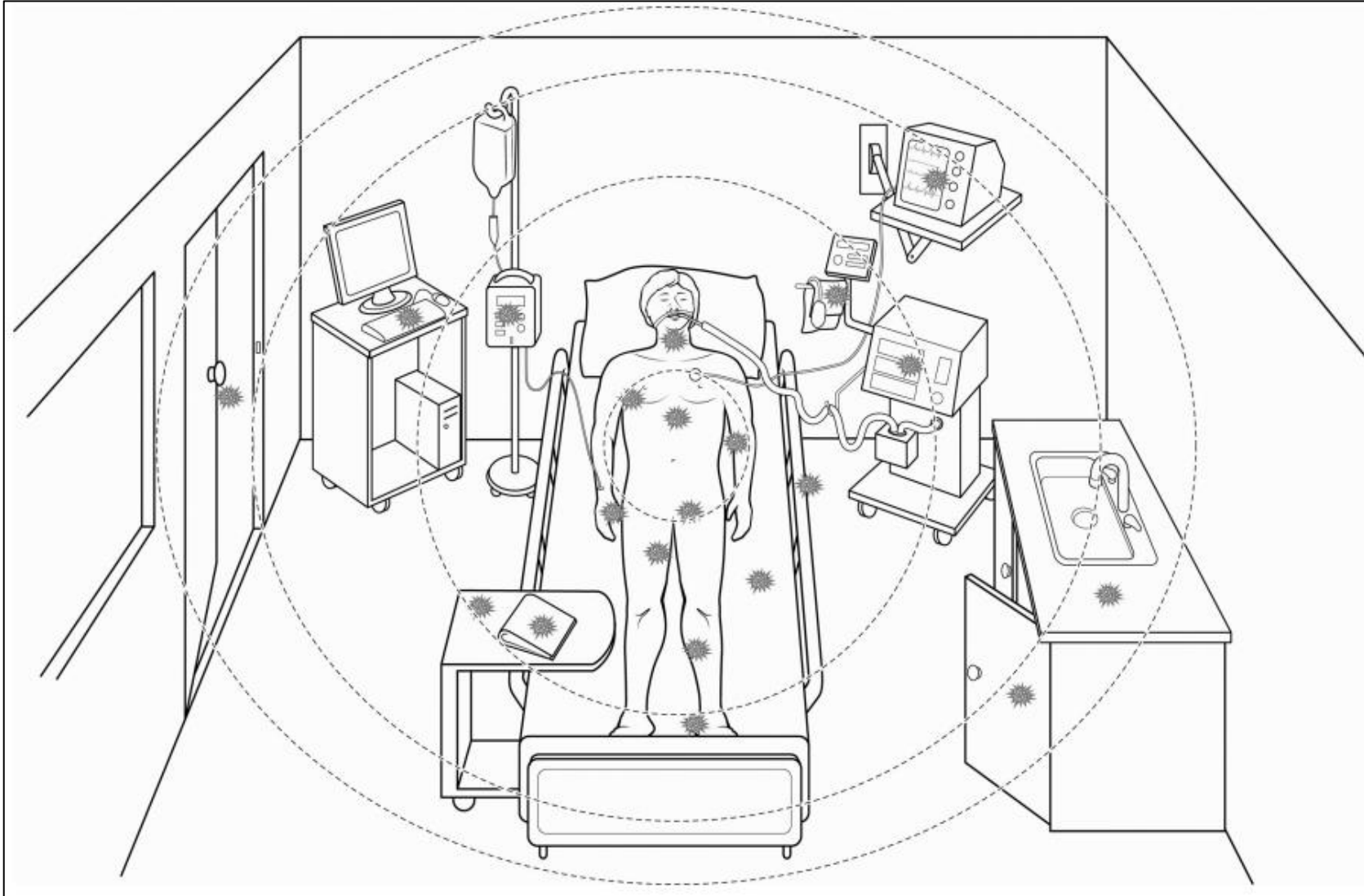
The Large Burden of MDROs in Nursing Homes

Facility Type	Documented MDRO	Actual MDRO
Nursing Homes (n = 14)	17% 	58% 
Ventilator-Capable Nursing Homes (n = 4)	20% 	76% 

 Known MDRO
  No Known MDRO

McKinnell JA et al, Clin Infect Dis. 2019; 69(9):1566-1573

MDRO Bioburden in a Patient/Resident Room and Environment

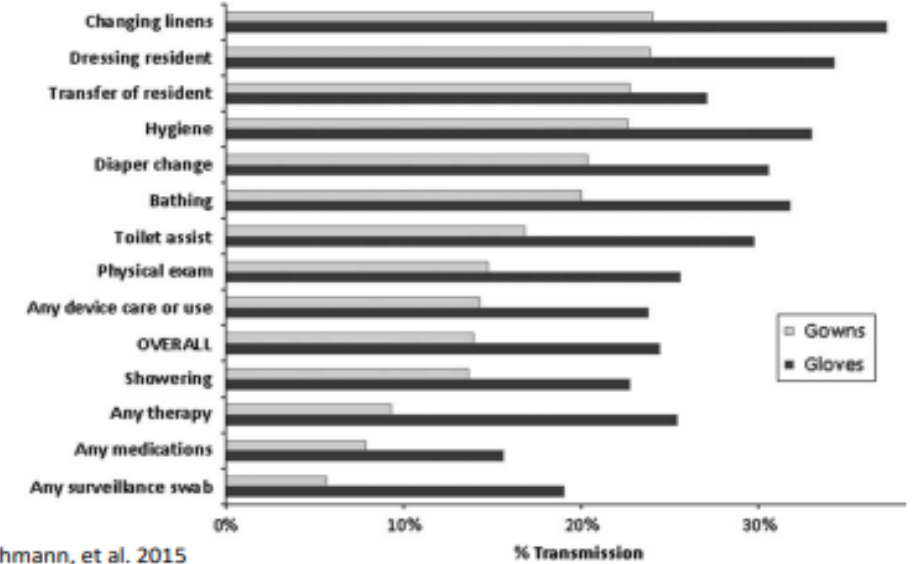


Lin, M. Y., & Hayden, M. K. (2010). Methicillin-resistant *Staphylococcus aureus* and vancomycin-resistant enterococcus: Recognition and prevention in intensive care units. *Critical Care Medicine*, 38, S335-S344.

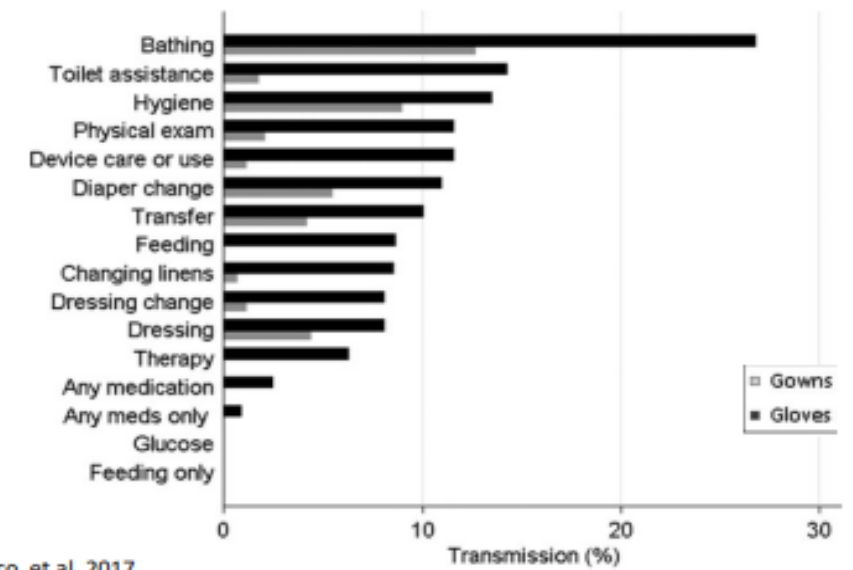
MDRO Transmission Occurs Often During High-Contact Resident Care Activities

Highest risk activities for MDRO transmission

- Dressing resident
- Bathing/showering
- Transferring
- Providing hygiene
- Changing linens
- Diaper change/toilet assist
- Device care or use



Roghmann, et al. 2015



Blanco, et al. 2017

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop C2-21-16
Baltimore, Maryland 21244-1850



Center for Clinical Standards and Quality/Quality, Safety & Oversight Group

Ref: QSO-24-08-NH

DATE: March 20, 2024
TO: State Survey Agency Directors
FROM: Director, Quality, Safety & Oversight Group (QSOG)
SUBJECT: Enhanced Barrier Precautions in Nursing Homes

Memorandum Summary

- CMS is issuing new guidance for State Survey Agencies and long term care (LTC) facilities on the use of enhanced barrier precautions (EBP) to align with nationally accepted standards.
- EBP recommendations now include use of EBP for residents with chronic wounds or indwelling medical devices during high-contact resident care activities regardless of their multidrug-resistant organism status.
- The new guidance related to EBP is being incorporated into F880 Infection Prevention and Control.

CMS Memo: Enhanced Barrier Precautions in Nursing Homes

Table 1: Implementing Contact versus Enhanced Barrier Precautions

This table only applies to MDROs, not all pathogens that may require use of transmission-based precautions.

Resident Status	Contact Precautions	Use EBP
Infected or colonized with any MDRO and has secretions or excretions that are unable to be covered or contained.	Yes	No
Infected or colonized with a CDC-targeted MDRO without a wound, indwelling medical device or secretions or excretions that are unable to be covered or contained.	No	Yes
Infected or colonized with a non-CDC targeted MDRO without a wound, indwelling medical device, or secretions or excretions that are unable to be covered or contained.	No	At the discretion of the facility
Has a wound or indwelling medical device, and secretions or excretions that are unable to be covered or contained and are not known to be infected or colonized with any MDRO.	Yes, unless/until a specific organism is identified.	Yes, if they do not meet the criteria for contact precautions.
Has a wound or indwelling medical device, without secretions or excretions that are unable to be covered or contained and are not known to be infected or colonized with any MDRO.	No	Yes

Examples of secretions or excretions include wound drainage, fecal incontinence or diarrhea, or other discharges from the body that cannot be contained and pose an increased potential for extensive environmental contamination and risk of transmission of a pathogen.

CMS Memo: Enhanced Barrier Precautions in Nursing Homes

Precautions	Applies to	PPE used for these situations	Required PPE	Room restriction
Standard Precautions	All residents	Any potential exposure to: <ul style="list-style-type: none"> Blood Body fluids Mucous membranes Non-intact skin Potentially contaminated environmental surfaces or equipment 	Depending on anticipated exposure: gloves, gown, facemask or eye protection (Change PPE before caring for another resident)	None
Enhanced Barrier Precautions	All residents with <i>any of the following</i> : <ul style="list-style-type: none"> Infection or colonization with an MDRO when Contact Precautions do not otherwise apply Wounds and/or indwelling medical devices (e.g., central line, urinary catheter, feeding tube, tracheostomy/ventilator) regardless of MDRO colonization status 	During high-contact resident care activities: <ul style="list-style-type: none"> 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 	Gloves and gown prior to the high-contact care activity (Change PPE before caring for another resident) (Face protection may also be needed if performing activity with risk of splash or spray)	None
Contact Precautions	All residents infected or colonized with a MDRO <i>in any of the following situations</i> : <ul style="list-style-type: none"> 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, as determined in consultation with public health authorities, on units or in facilities during the investigation of a suspected or confirmed MDRO outbreak When otherwise directed by public health authorities All residents who have another infection (e.g., <i>C. difficile</i> , norovirus, scabies) or condition for which Contact Precautions is recommended in Appendix A (Type and Duration of Precautions Recommended for Selected Infections and Conditions) of the CDC Guideline for Isolation Precautions.	Any room entry	Gloves and gown (Don before room entry, doff before room exit; change before caring for another resident) (Face protection may also be needed if performing activity with risk of splash or spray)	Yes, except for medically necessary care

Implementation of Personal Protective Equipment (PPE) Uses in Nursing Homes to Prevent the Spread of Multi-Drug Resistant Organisms (MDROs):

Summary of Personal Protective Equipment (PPE) Use and Room Restriction When Caring for Residents in Nursing Homes

Enhanced Barrier Precautions: Best Practices & Steps to Implementation

- 1. Post clear signage on the door or wall outside the resident's room indicating type of Precautions & required PPE
- 2. Make PPE, including gowns and gloves, available immediately outside of the resident room
- 3. Ensure access to alcohol-based hand rub in every resident room (ideally both inside and outside of the room)
- 4. Position a trash can inside the resident room and near the exit for discarding PPE after removal
- 5. Incorporate periodic monitoring and assessment of adherence
- 6. Provide education to staff, residents, and visitors

Scenario 1

Mr. Jones has an active decubitus infection with carbapenem-resistant *Acinetobacter baumannii* (CRAB) and requires assistance with his daily care activities, especially dressing, bathing and toileting. His wound is not draining and remains covered. Does Mr. Jones meet the criteria for the use of enhanced barrier precautions?

- A. Yes
- B. No

Scenario 1

Mr. Jones has an active decubitus infection with carbapenem-resistant *Acinetobacter baumannii* (CRAB) and requires assistance with his daily care activities, especially dressing, bathing and toileting. His wound is not draining and remains covered. Does Mr. Jones meet the criteria for the use of enhanced barrier precautions?

A. Yes

B. No

- ✓ History of infection or colonization with a targeted MDRO
- ✓ Wound is not draining and covered
- ✓ Enhanced barrier precautions indicated

Scenario 2

Can personal protective equipment (PPE) be stored inside the resident's room? The QSO verbiage does not specify, but I am hearing a lot about other facilities implementing this.

- How are you storing personal protective equipment (PPE) in your facility?
 - A. Storing PPE in the hallway
 - B. Storing PPE in the resident's room
 - C. Telling staff to grab PPE from the supply area and carry it into the room
 - D. We are still trying to figure it out!

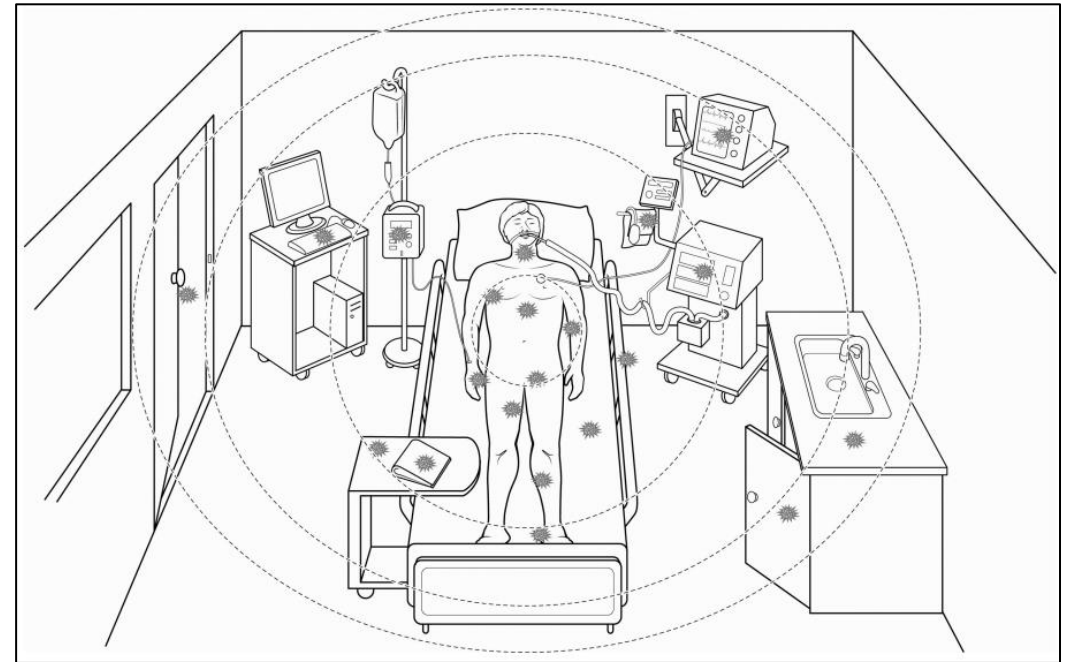
Scenario 2

Can personal protective equipment (PPE) be stored inside the resident's room? The QSO verbiage does not specify, but I am hearing a lot about other facilities implementing this.

How are you storing personal protective equipment (PPE) in your facility?

- A. Storing PPE in the hallway
- B. Storing PPE in the resident's room
- C. Telling staff to grab PPE from the supply area and carry it into the room
- D. We are still trying to figure it out!

- ✓ Best Practice: CDC guidance states that gowns and gloves *should* be available outside each resident room and alcohol-based hand rub should be available inside and outside each resident room (ideally).



Storing PPE in the resident's room increases the likelihood of MDRO contamination.

Scenario 2: Additional Considerations

[CMS QSO-24-08 Memo](#): “Facilities should ensure PPE and alcohol-based hand rub are **readily accessible** to staff. **Discretion** may be used in the placement of supplies, which may include placement near or outside the resident’s room.”

- Risk of PPE contamination
- Regulatory compliance risks
 - PPE accessibility
 - Restocking cues
- Increased potential for waste (upon discharge/transfer)
- IPC Facility Risk Assessment
 - Care activities
 - Adherence to appropriate selection and use of PPE
 - Accessibility of PPE and HH supplies

Scenario 3

An “orange dot” can be placed next to a resident name outside the door to identify a resident on EBP.

- A. True
- B. False

Scenario 3

An “orange dot” can be placed next to a resident name outside the door to identify a resident on EBP.

A. True

B. False

[CMS QSO-24-08 Memo](#): “Facilities have **discretion** on how to communicate to staff which residents require the use of EBP. CMS supports facilities in using **creative (e.g., subtle) ways to alert staff** when EBP use is necessary to help maintain a home-like environment, as long as staff are aware of which residents require the use of EBP prior to providing high-contact care activities.”

But Wait!
We have some factors to consider!

Scenario 3

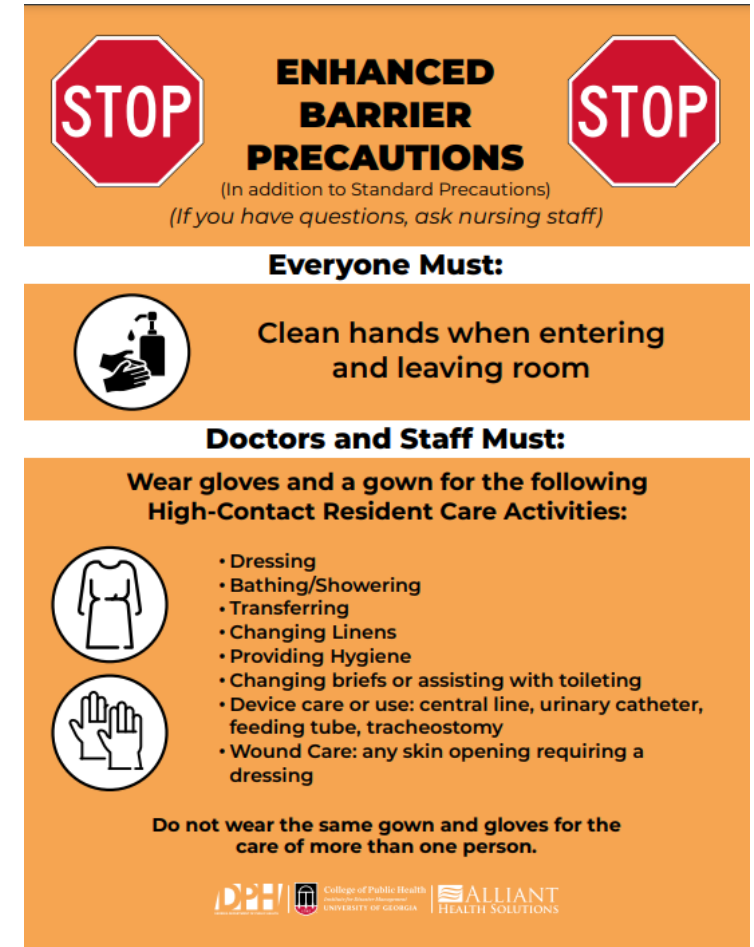
An “orange dot” can be placed next to a resident name outside the door to identify a resident on EBP.

A. True

B. False

- ✓ Will this be an effective method to communicate EBP to residents, visitors, family, and vendors?
- ✓ How are you validating that everyone knows this means the resident is on EBP?
- ✓ Is a “dot” easy to miss?
- ✓ Best Practice:
 - ✓ **CDC recommends that a facility posts clear signage on the door or wall outside of the resident room indicating the type of Precautions and required PPE** (e.g., gown and gloves). For Enhanced Barrier Precautions, signage should also clearly indicate the high-contact resident care activities that require the use of gowns and gloves. You should also provide education to residents and visitors.

https://quality.allianthealth.org/wp-content/uploads/2023/01/Enhanced-Barrier-Precautions-Sign_508.pdf



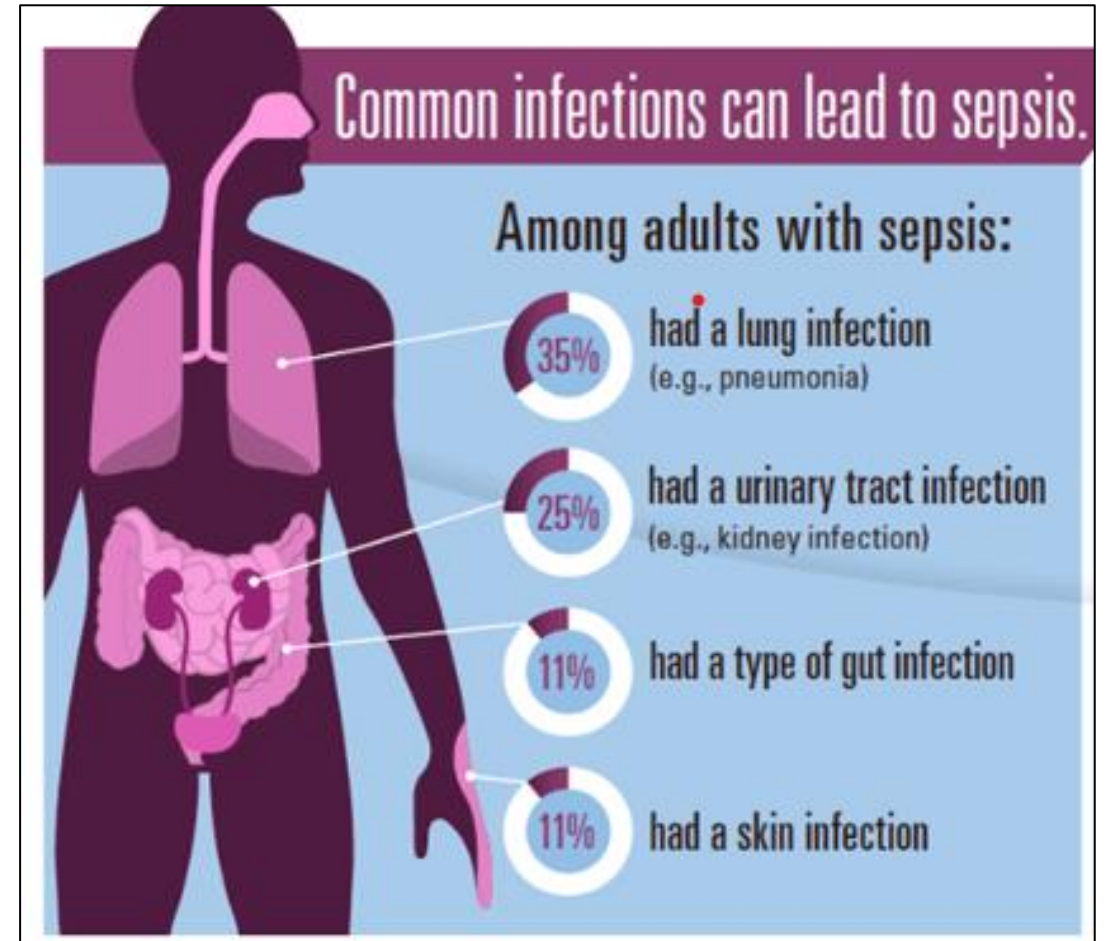
The image shows a set of signage for Enhanced Barrier Precautions. At the top, there are two red octagonal 'STOP' signs flanking the text 'ENHANCED BARRIER PRECAUTIONS' in bold black letters. Below this, it says '(In addition to Standard Precautions)' and '(If you have questions, ask nursing staff)'. The next section is titled 'Everyone Must:' and features a circular icon of hands being washed with soap and water, followed by the text 'Clean hands when entering and leaving room'. The final section is titled 'Doctors and Staff Must:' and lists 'Wear gloves and a gown for the following High-Contact Resident Care Activities:'. This section includes two circular icons: one of a white gown and one of a white glove. To the right of these icons is a bulleted list of activities: Dressing, Bathing/Showering, Transferring, Changing Linens, Providing Hygiene, Changing briefs or assisting with toileting, Device care or use: central line, urinary catheter, feeding tube, tracheostomy, and Wound Care: any skin opening requiring a dressing. Below the list, it states 'Do not wear the same gown and gloves for the care of more than one person.' At the bottom right, there are logos for DPH, College of Public Health University of Georgia, and ALLIANT HEALTH SOLUTIONS.



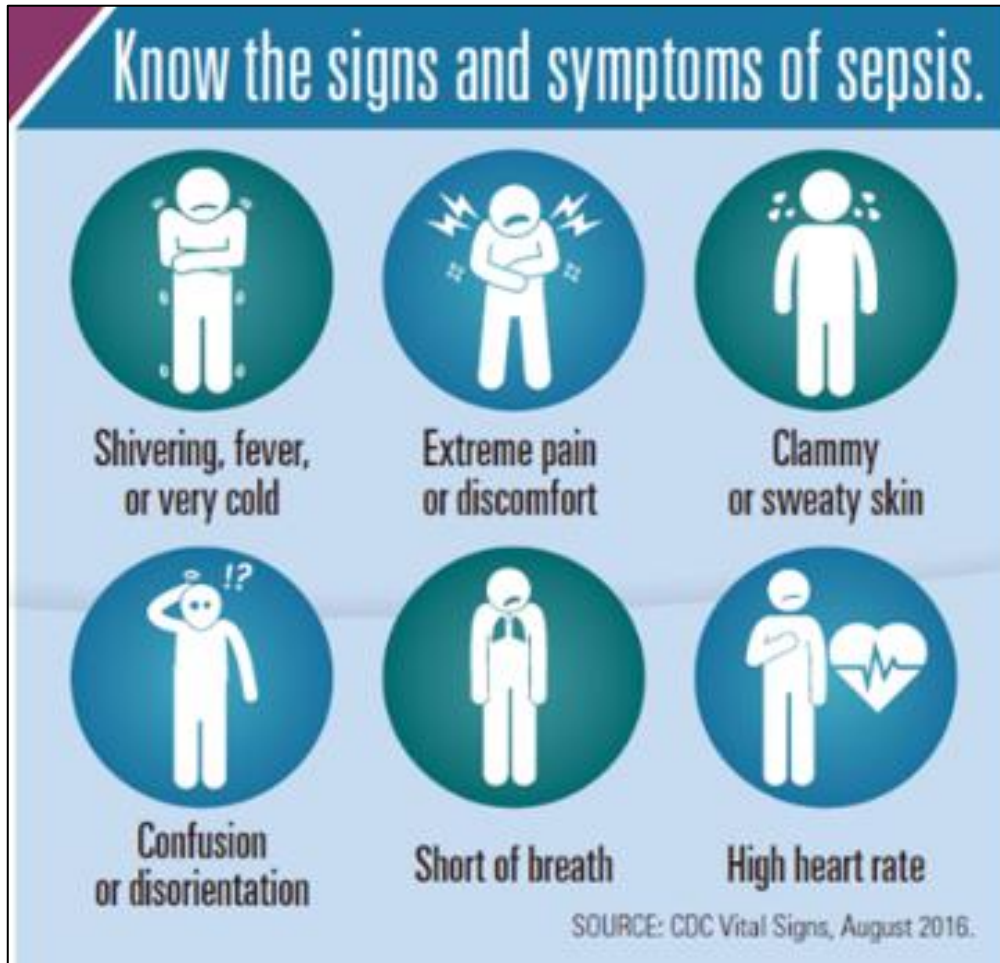
Reducing Sepsis and Healthcare-associated infections (HAI) Hospitalizations in Nursing Home Residents

Sepsis Facts

- Sepsis, or the infection causing sepsis, starts before a patient goes to the hospital in nearly **87%** of cases
- Risk factors:
 - Adults 65 or older
 - People with weakened immune systems
 - People with chronic medical conditions, such as diabetes, lung disease, cancer and kidney disease
 - People with recent severe illness or hospitalization, including due to severe COVID-19
 - People who survived sepsis
 - Children younger than one



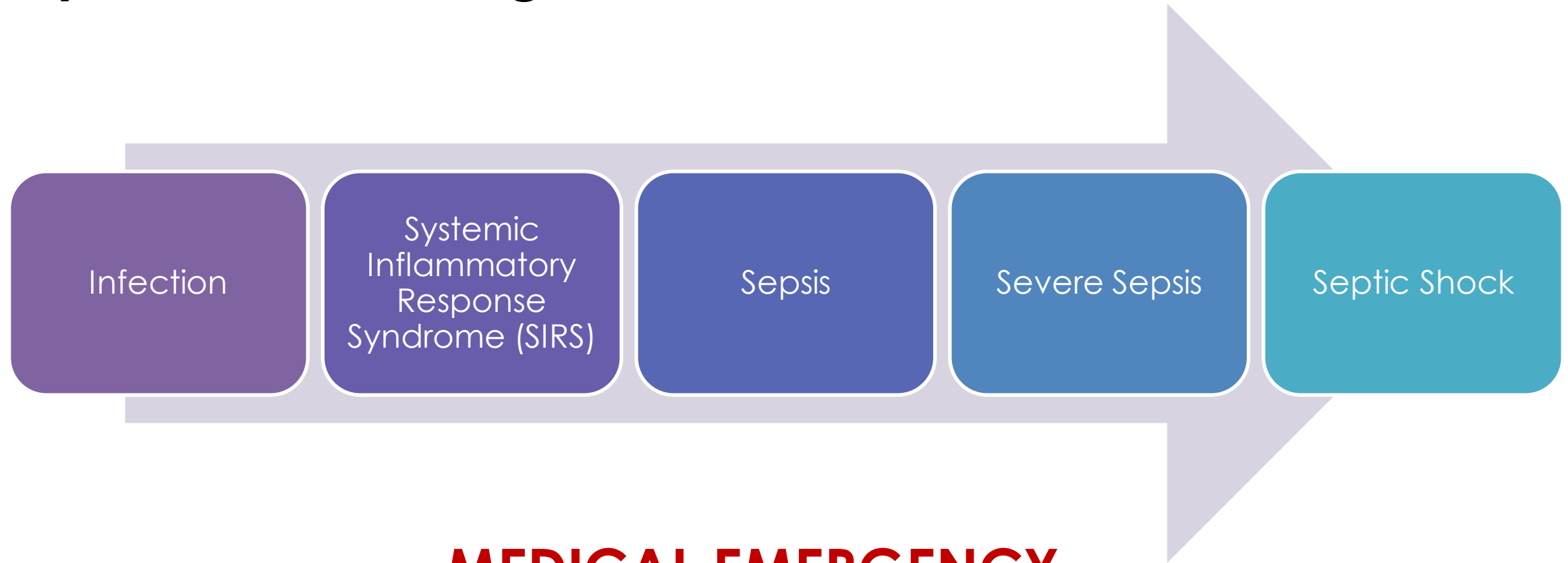
Sepsis: Signs and Symptoms



- Fever or hypothermia
- Tachycardia (> 100 heartbeats/minute)
- Tachypnea (> 20 breaths/minute)
- Altered mental status
- Hyperglycemia
- Leukocytosis (White blood cell [WBC] count > 12,000) or Leukopenia (WBC count < 4,000)
- Elevated inflammatory markers (C-reactive protein, procalcitonin)
- Hypotension (Systolic blood pressure [SBP] < 90 mmHg or a SBP decrease > 40 mmHg)
- Decrease in urine output
- Coagulation/clotting abnormalities
- Thrombocytopenia (low platelet count < 100,000)

<https://www.cdc.gov/vitalsigns/sepsis/index.html>

Sepsis: Clinical Progression

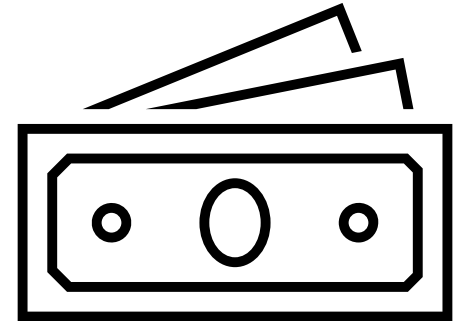


MEDICAL EMERGENCY

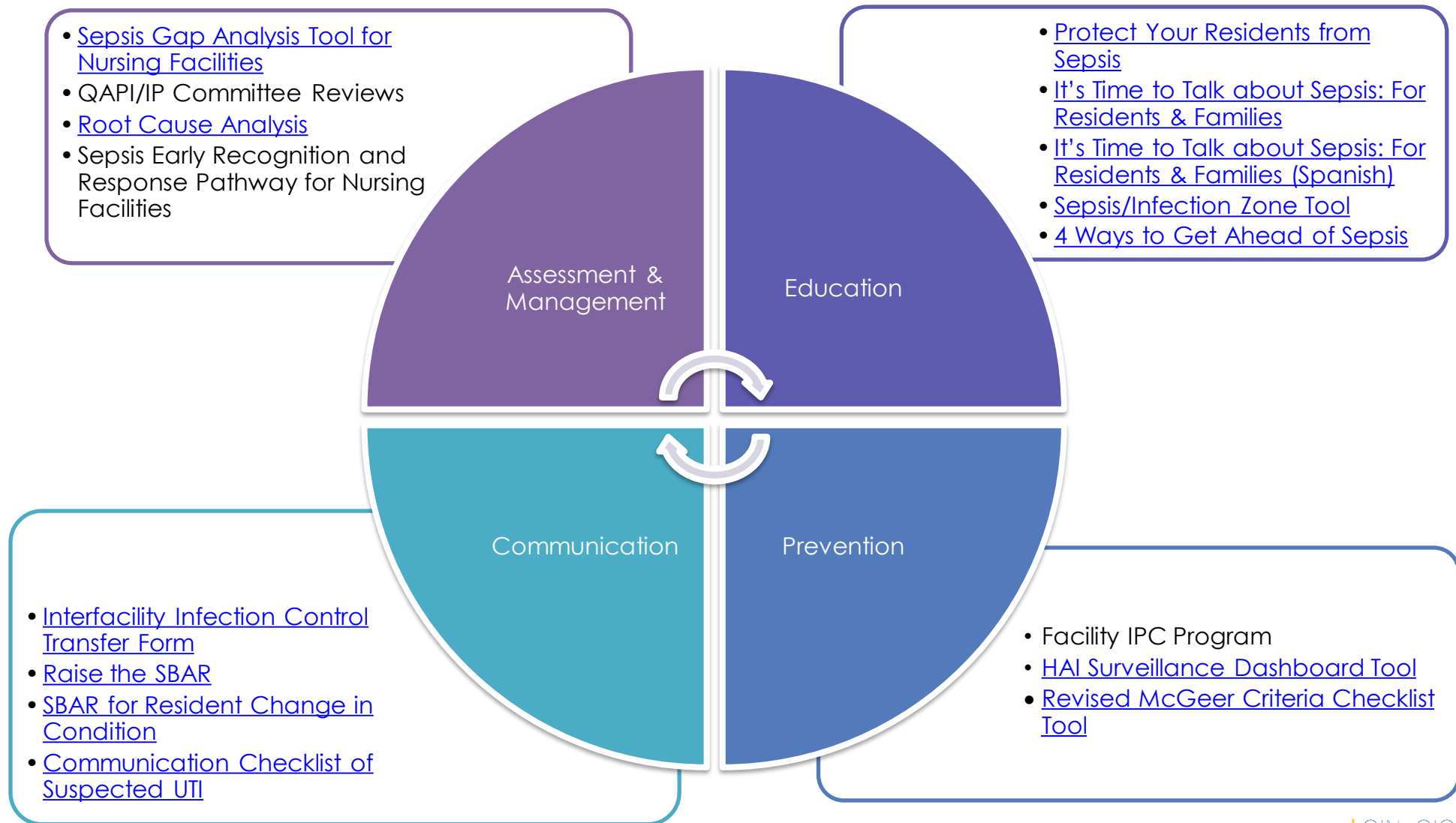
Rapid progression from infection to septic shock (multiple organ system failure) and death in as little as 12 hours

HAI and Sepsis Quality Improvement

- CMS Value-based Purchasing (VBP) Updates
 - CMS finalized the expansion of the SNF VBP program in FY 2026 and FY 2027
 - **SNF HAI Requiring Hospitalization (FY2026)**
 - Baseline year (FY2022)
 - Performance year (FY2024)
 - 10/1/2023 - 9/30/2024



Sepsis: Programmatic and Clinical Focus Areas



National Healthcare Safety Network (NHSN) Reporting

NHSN Reporting Period Q2

From April 1, 2024 – June 30, 2024

- For this reporting quarter, individuals are considered up-to-date with their COVID-19 vaccines for NHSN surveillance if they meet the following criteria:
- Individuals aged **65 years and older** are up-to-date when they have received two doses of the updated 2023-2024 COVID-19 vaccine **or** received one dose of the updated 2023-2024 COVID-19 vaccine within the past four months.
- Individuals **younger than 65 years** of age are up-to-date when they have received one dose of the updated 2023-2024 COVID-19 vaccine.

NHSN Reporting Reminder: Due May 15, 2024

Long-Term Acute Care Facilities (LTACs/LTCHs) that participate in the Long-Term Care Hospital Quality Reporting Program:

- 2023 Quarter 4 (October 1 – December 31) CLABSI and CAUTI data (all bedded inpatient locations)
- 2023 Quarter 4 (October 1 – December 31) C. difficile LabID Events (FacWideIN, all healthcare-onset, and community-onset)
- 2023 Quarter 4 (September 25 – December 31) COVID-19 Weekly Healthcare Personnel COVID-19 Vaccination Summary data
- 2023 Quarter 4 & 2024 Quarter 1 (October 1 – March 31) Annual Healthcare Personnel Influenza Vaccination Summary data

• Skilled Nursing Facilities (SNFs) that participate in the Skilled Nursing Facility Quality Reporting Program:

- 2023 Quarter 4 (September 25 – December 31) Weekly Healthcare Personnel COVID-19 Vaccination Summary data
- 2023 Quarter 4 & 2024 Quarter 1 (October 1 – March 31) Annual Healthcare Personnel Influenza Vaccination Summary data

Alliant Health Solutions Website



NQIIC
Network of Quality Improvement and
Innovation Contractors
CENTERS FOR MEDICARE & MEDICAID SERVICES
EQUALITY IMPROVEMENT & INNOVATION GROUP

Home

Programs

Events

Resources

What can we help you find?

Search

Shop Talks & Quickinars

A shop talk is a webinar hosted by Alliant to share information and resources.

Updates and support for surveillance, tracking and infection prevention in nursing homes using National Healthcare Safety Network (NHSN). This WebEx is focused on submitting COVID-19 data but may include other components such as C. Diff, UTIs and hand hygiene.

[Click here](#) to access the Shop Talk Shorts FAQs and video playlist.

[Click here](#) to access the NHSN Weekly COVID-19 Vaccine Summary – Do Not Report Zeros resource.



<https://quality.allianthealth.org/topic/shop-talks/>



QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
EQUALITY IMPROVEMENT & INNOVATION GROUP

Resources



Enhanced Barrier Precautions Resources

Resources from CDC

- [CDC Implementation of Enhanced Barrier Precautions](#) (Guidance)
- [Centers for Disease Control and Prevention \(CDC\) Implementation and Use of Enhanced Barrier Precautions](#) (Continuing education webinar)
 - [Slides](#)
- [CDC Frequently Asked Questions \(FAQs\) for Enhanced Barrier Precautions](#)
- [CDC Enhanced Barrier Precautions Letter to Nursing Home Residents, Families, Friends, and Volunteers](#)
- [CDC Enhanced Barrier Precautions Letter to Nursing Home Staff](#)
- [Considerations for Use of Enhanced Barrier Precautions in Skilled Nursing Facilities](#)

Resources from Alliant Health Solutions

- [Infection Control Webpage](#)
- [Alliant Health Solutions: Enhanced Barrier Precautions Webinar](#)
- [EBP Bite-sized learning](#)
- [Enhanced Barrier Precautions Family/Resident Education](#)
- [Enhanced Barrier Precautions Sign](#)

Sepsis-Related Resources

Alliant Health Solutions Sepsis-related infections bite-sized learning videos and webinars

- [Sepsis Bite-sized Learning](#)
- [Practical Strategies to Prevent Sepsis in Nursing Home Residents](#) (webinar recording and slides with hyperlinked resources)
- [Comprehensive Approaches to Prevent and Manage UTIs \(playlist\)](#)
- [Urine Specimen Collection Resource](#)
- [Antibiogram & Empiric Treatments](#)
- [UTIs & Antibiotic Time-outs](#)
- [UTI Treatment Guidance](#)
- [Approaches to Prevent & Manage UTIs in Nursing Facilities: Antimicrobial Stewardship](#)
- [C. difficile Infection Reductions in Long-Term care: Early Recognition & Implementation of Contact Precautions](#)
- [C. difficile Infection Reduction in Long-Term Care: Environmental Cleaning & Disinfection](#)

Alliant Health Solutions Sepsis-related infection resources

- [Communication Checklist for Suspected UTIs](#) (Click Handout)
- [Urine Specimen Collection Protocol](#) (click handout)
- [AHRQ Safety Program for Improving Antibiotic use: Bacterial Pneumonia in Long-Term Care](#) (click handout)
- [Suspected UTI in Long-Term Care residents \(resource and checklist\)](#)
- [Viral Respiratory Pathogens Toolkit for Nursing Homes](#) (click Handout)
- [C. difficile Infection Prevention and Treatment](#) (click Handout)

Thank You for Your Time!
Contact the AHS Patient Safety Team
patientsafety@allianthealth.org



Amy Ward, MS, BSN, RN, CIC, FAPIC
Patient Safety Manager
amy.ward@AlliantHealth.org
678.527.3653



Paula St. Hill, DrPH, MPH, CIC, A-IPC
Technical Advisor, Infection Prevention
paula.sthill@AlliantHealth.org
678.527.3619

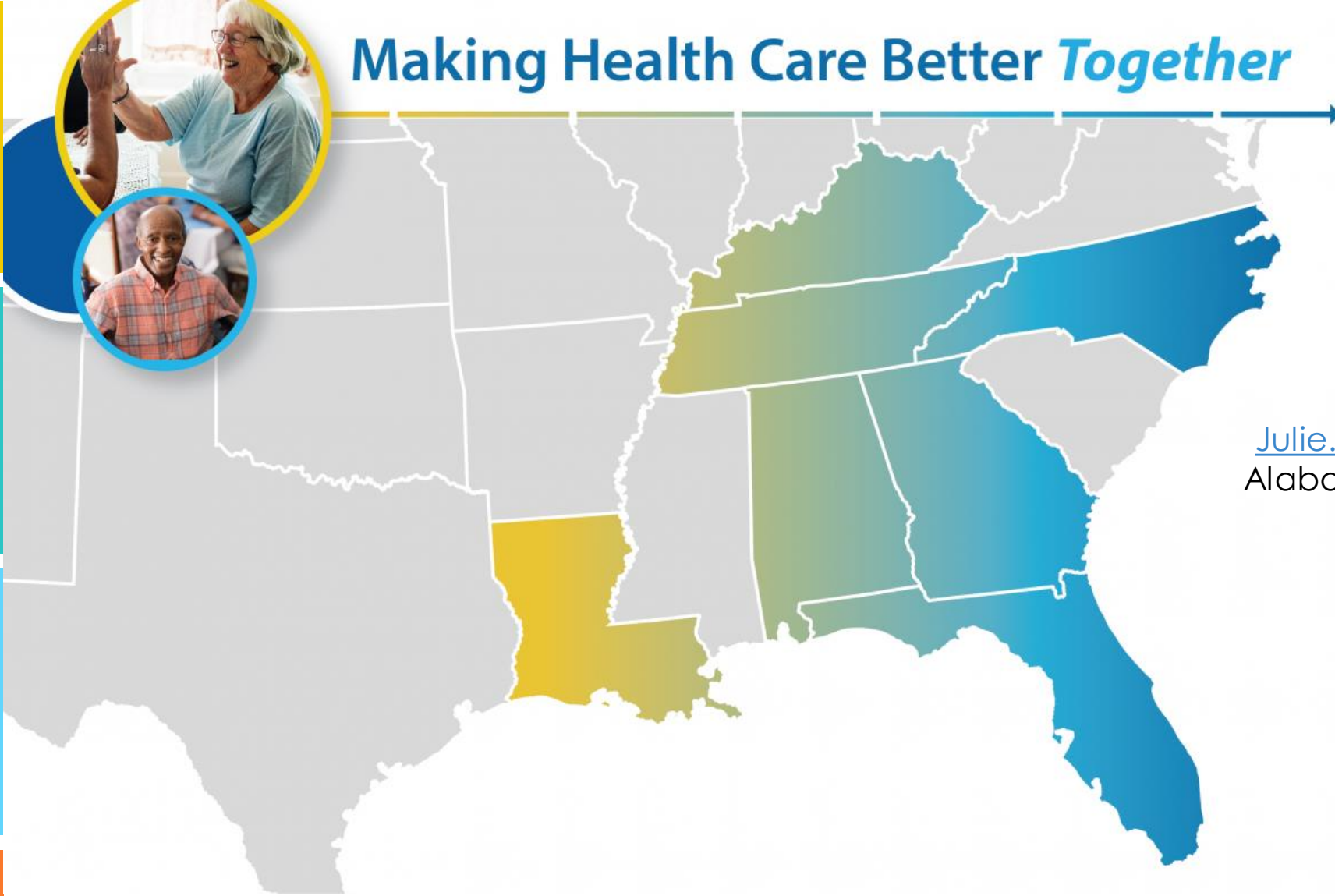


Donald Chitanda, MPH, CIC, LTC-CIP
Technical Advisor, Infection Prevention
donald.chitanda@allianthealth.org
678.527.3651



Erica Umeakunne, MSN, MPH, APRN, CIC
Infection Prevention Specialist
erica.umeakunne@AlliantHealth.org

Making Health Care Better *Together*



Julie Kueker

Julie.Kueker@AlliantHealth.org
Alabama, Florida and Louisiana



Leighann Sauls

Leighann.Sauls@AlliantHealth.org
Georgia, Kentucky, North Carolina and Tennessee

Program Directors



 **ALLIANT**
HEALTH SOLUTIONS

QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
IQUALITY IMPROVEMENT & INNOVATION GROUP

Making Health Care Better *Together*

ALABAMA • FLORIDA • GEORGIA • KENTUCKY • LOUISIANA • NORTH CAROLINA • TENNESSEE



@AlliantQIO



Alliant Health Solutions



@AlliantQIO



AlliantQIO

This material was prepared by Alliant Health Solutions, a Quality Innovation Network – Quality Improvement Organization (QIN – QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. Publication No. 12SOW-AHS-QIN-QIO TO1-NH-5735-05/09/24

 **ALLIANT**
HEALTH SOLUTIONS

QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
IQUALITY IMPROVEMENT & INNOVATION GROUP