

# Sepsis in the Long-Term Care Setting: Part 2

Project Firstline | PA Department of Health

Wednesday, June 12<sup>th</sup>, 2024

# Learning Objectives

Participants will be able to:

1.) Identify at least 3 signs and symptoms of sepsis in long-term care (LTC) residents

2.) Describe 3 or more interventions for sepsis surveillance and treatment

3.) Demonstrate understanding of at least 4 best practices for early detection and prevention of sepsis

4.) Apply 3 or more sepsis prevention and control strategies to their unique LTC environment

# Sepsis Survival and Recovery

- **Long-Term Effects**

- More than half of older adult sepsis survivors endure **worsened** physical and cognitive functioning
- Older adult sepsis survivors face **1-2 new limitations** on activities of daily living (ADLs) following hospitalization

- **Readmissions**

- More than 40% of older adult sepsis survivors are **readmitted** to the hospital within 3 months
- Up to 2/3 of hospital readmissions following sepsis are **related to infection**

- **Caregiver Impact**

- Caregivers of critical illness survivors are at higher risk for **poorer mental health** outcomes



# The Cost of Sepsis

## Human Cost

- **11 million lives are lost globally** each year due to sepsis, including an estimated **350,000** in the United States
- Approximately 1% of survivors face **at least one surgical amputation** due to sepsis
- Sepsis survivors bear the burden of a **decreased life expectancy**

## Economic Cost

- Sepsis is the **leading cost of hospitalization** in the United States
- Acute sepsis hospitalization and skilled nursing care can cost up to **\$62 billion annually**
- Hospital readmission at 30 days following sepsis can average **\$16,852 per patient**

# Sepsis and Health Equity

- **Racial and Ethnic Disparities**

- Incidence and mortality **rates of sepsis are higher** for non-white individuals
- Non-white individuals often face **significantly longer wait times** and **lower priority status** in emergency departments

- **Socioeconomic Disparities**

- Adults with reduced levels of education and financial resources are at **increased risk for mortality** due to sepsis

- **Awareness and Language Proficiency Disparities**

- Sepsis patients with limited English proficiency (LEP) face an **80% higher mortality risk**

# Sepsis and LTC Populations

## Age

- At least 70% of adult patients with sepsis are **60 years of age or older**

## Risk

- Nursing home residents are **6x more likely to pursue emergency care for sepsis** than non-nursing home residing adults

## Aftercare

- Adult sepsis patients are **3x more likely to be discharged to LTC**

## Disability

- Older adult survivors of sepsis tend to endure **more long-term disabilities** than other adult survivors

# Challenges for LTC Settings

## Communication and Collaboration

- Delayed recognition or reporting of infection
- Ineffective interpersonal or interdisciplinary communication

## Knowledge and Resources

- Staff shortages and workforce burnout
- Reduced laboratory and clinical capacity

## Antimicrobial Stewardship

- Limited AMR awareness and [interventions](#)
- Increased risk of development and spread of MDROs

[Protecting LTC Residents from Sepsis | CDC](#)

[Core Elements of Antibiotic Stewardship for Nursing Homes | CDC](#)

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# Solutions for LTC Settings

## 2023 Hospital Sepsis Program Core Elements

- Intended to “**monitor and optimize hospital management and outcomes of sepsis**”
- Complement existing CDC sepsis guidelines
  - Hospital Leadership Commitment
  - Accountability
  - Multi-Professional Expertise
  - Action
  - Tracking
  - Reporting
  - Education



# Solutions for LTC



## Hospital Leadership Commitment

Dedicating the necessary human, financial, and information technology resources.

Enhances interdisciplinary communication and bolsters facility capability



## Accountability

Appointing a leader or co-leaders responsible for program goals and outcomes.

Promotes trust and helps alleviate challenges for frontline team members



## Multi-Professional Expertise

Engaging key partners throughout the hospital and healthcare system.

Increases knowledge, fosters support, and builds clinical capacity

# Solutions for LTC



## Action

Implementing structures and processes to improve the identification of, management of, and recovery from sepsis.



## Tracking

Measuring sepsis epidemiology, management, and outcomes to assess the impact of sepsis initiatives and progress toward program goals.



## Reporting

Providing information on sepsis management and outcomes to relevant partners.



## Education

Providing sepsis education to healthcare professionals, patients, and family/caregivers.

Reinforces awareness of AMR and antimicrobial stewardship efforts

Strengthens surveillance and promotes quality improvement initiatives within LTC settings

Empowers all who are connected to resident care and the community

# Case Scenarios



# Case Scenario #1

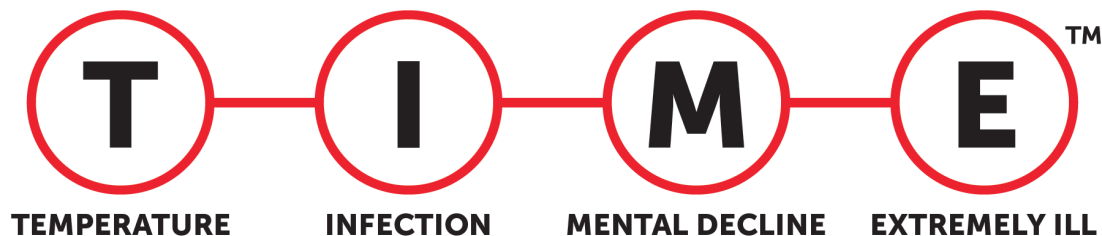
Mrs. Petrillo is a resident in a small personal care home. She is an 80-year-old sepsis survivor with a history of diabetes mellitus. A Certified Nursing Assistant (CNA) alerts the Director of Nursing (DON) that Mrs. Petrillo's resting heart rate is 120BPM, her blood pressure is 90/60mm/Hg, and her oxygen saturation is below baseline. She is febrile, disoriented, and clammy to the touch.



# Case Scenario #1

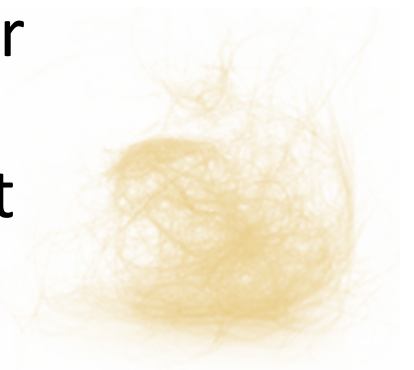
**Suspecting sepsis, the DON assesses Mrs. Petrillo. Affirming his suspicions, what is the most appropriate next step for this resident?**

- A.) Start an intravenous (IV) catheter to increase fluid intake
- B.) Activate EMS immediately by calling 911
- C.) Begin cardiopulmonary resuscitation (CPR)
- D.) Provide oral fluids and reassess in 15 minutes



# ▶ Case Scenario #2

Mrs. Nylund, a 68-year-old resident of an independent living community, was recently hospitalized for a heart attack. She survived sepsis while inpatient and was later discharged to a subacute care facility for rehabilitation. While weaning off a ventilator, Mrs. Nylund's Registered Respiratory Therapist (RRT) notices a clump of hair on her bed and rashes on her upper extremities. After providing respiratory care, the therapist shares their observations with nursing staff.



# Case Scenario #2

**Mrs. Nylund is assessed by a Registered Nurse (RN) who reports her findings to the physician. To what may the physician attribute the cause of these symptoms?**

- A.) Ventilator-Associated Pneumonia (VAP)
- B.) Septic shock
- C.) Allergic reaction
- D.) PSS

Swelling and skin rashes

Hair loss

# Case Scenario #3

Ms. Zbornak is visiting her 87-year-old father, Sal, in a skilled nursing facility. Sal has Chronic Obstructive Pulmonary Disease (COPD) and currently receives 4L of oxygen via nasal cannula. A physician enters the room and shakes Sal's hand while introducing himself. During this interaction, Ms. Zbornak notices that the physician did not perform hand hygiene upon entering the room.





# Case Scenario #3

**Concerned about Sal's ability to fight infections, what could Ms. Zbnornak do to help protect and advocate for her father?**

- A.) Ask the physician to perform hand hygiene the next time he enters Sal's room
- B.) Note the interaction to discuss later with the Nursing Home Administrator (NHA)
- C.) Politely remind the physician about hand hygiene and help Sal sanitize his hands before touching his face or surroundings
- D.) Trust that the physician knows what he is doing and assume he performed hand hygiene while out in the hallway

**MAKE YOUR INTENTION PREVENTION  
Clean Hands Stop the Spread**

# ▶ Case Scenario #4

Mrs. Deveraux calls the intermediate care facility where her brother, Tad, lives. Tad has intellectual disabilities and often struggles to articulate how he feels. 3 days ago, Mrs. Deveraux noticed signs that Tad may have COVID-19 and reported this to a direct care worker. Today, she asks the House Manager for an update on her brother's health status. Unaware that these concerns were reported, the House Manager asks for more information.



# ▶ Case Scenario #4

**Tad is quickly assessed and tested for COVID-19. The House Manager confirms that he is positive and initiates IPC protocol. Which factor most likely delayed the identification of this infection?**

- A.) Ineffective communication and documentation
- B.) Interpersonal conflict
- C.) AMR
- D.) Staffing shortages and low morale



**Action**

# Summary and Key Takeaways

- Sepsis is a **life-threatening response** to infection that progresses quickly in stages
- **Immediate** recognition and treatment of sepsis is critical for survival
- Sepsis can cause **short-term and long-term complications** for survivors
- IPC protocols in LTC settings are **essential for preventing** sepsis from occurring
- LTC settings are diverse, facing **unique challenges and solutions** related to IPC and sepsis

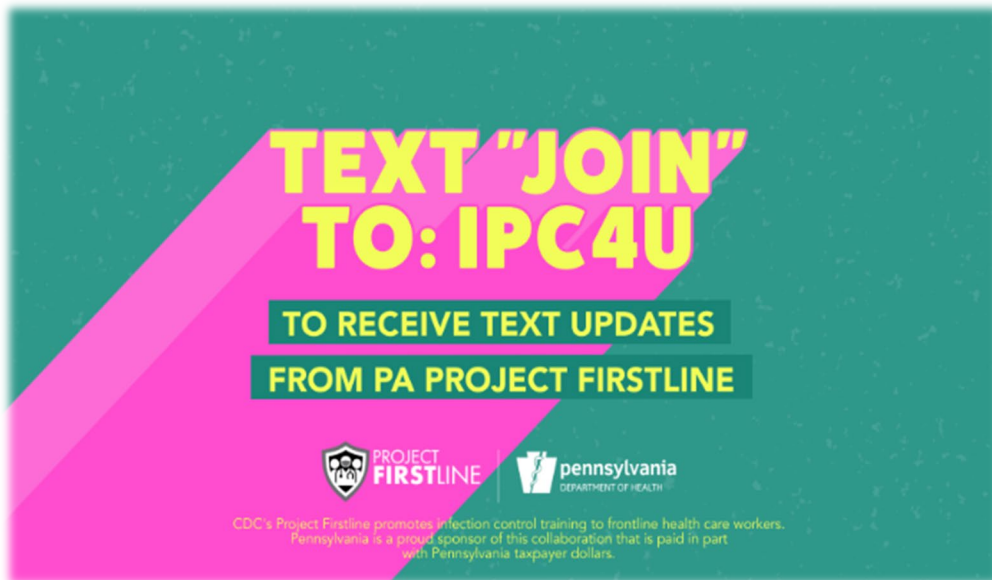
# Open Forum

**Thank You for Attending Part 2!**

*Questions, Comments, Feedback, and Discussion*

# Resources

- For more information, please visit the PA Project Firstline [homepage](#)
- Contact us at [RA-DHFIRSTLINE@PA.GOV](mailto:RA-DHFIRSTLINE@PA.GOV)
- Request **free** onsite IPC education [here](#)



# Resources

- **PA Department of Health (DOH):**
  - [Health Care-Associated Infection Prevention/Antimicrobial Stewardship \(HAIP/AS\) Program](#)
  - [Bureau of Laboratories](#)
- **PA DOH LTC RISE Program (by Region):**
  - [Southeast](#)
  - [Southcentral](#)
  - [Northwest](#)
  - [Northeast, Northcentral, and Southwest](#)
- **PA Department of Human Services (DHS):**
  - [Disabilities and Aging](#)



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[https://t3.ftcdn.net/jpg/03/32/41/58/240\\_F\\_332415896\\_Rlq6EM9FUng1m1g9n0jVD7Z7NIwWpAt7.jpg](https://t3.ftcdn.net/jpg/03/32/41/58/240_F_332415896_Rlq6EM9FUng1m1g9n0jVD7Z7NIwWpAt7.jpg)

<https://www.shutterstock.com/image-vector/one-line-drawing-isolated-vector-object-716039422>

**Slide 45:** <https://www.cdc.gov/sepsis/pdfs/sepsis-core-elements-H.pdf>

**Slide 47:** <https://www.shutterstock.com/image-photo/doctors-nurses-helping-elderly-corona-virus-covid19-1722379042>

<https://www.shutterstock.com/image-photo/doctor-visiting-senior-male-patient-on-126693233>

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<https://www.shutterstock.com/image-photo/female-nurse-doing-blood-pressure-measurement-497636569>

<https://www.shutterstock.com/image-photo/portrait-senior-people-having-breakfast-table-692517430>

**Slide 48:** [https://www.health.pa.gov/topics/programs/HAIP-AS/PublishingImages/PA%20Project%20Firstline\\_for%20web.png](https://www.health.pa.gov/topics/programs/HAIP-AS/PublishingImages/PA%20Project%20Firstline_for%20web.png)

<https://www.cdc.gov/infectioncontrol/projectfirstline/images/Poster-85by11HiRes.jpg>

**Slide 49:** <https://www.health.pa.gov/Pages/default.aspx>

<https://www.dhs.pa.gov/PublishingImages/DHS-logo-title.png>