

#### Sepsis From an Infection Preventionist's Perspective

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#### Introduction

- The Centers for Disease Control and Prevention (CDC) estimates that 1 to 3 million serious infections occur in long-term care (LTC) settings every year.
- Many residents of LTC settings are older adults with chronic conditions. Both are risk factors that can increase the risk of infection
- These risk factors also increase the risk of infections progressing to sepsis.



## What is Sepsis?

- Sepsis is a condition which is sometimes incorrectly called blood poisoning. Sepsis is the body's extreme response to an infection that can lead to tissue damage, organ failure, and death.
- Sepsis is a life-threatening medical emergency.



## Sepsis in Long-Term Care

Residents living in long-term care facilities enjoy many benefits including opportunities to interact with other residents and visitors and even facility employees.

However, the more people who come and go, there is an increased risk for certain types of illnesses to be brought into and spread throughout the facility. Infections developed within a hospital or long-term care facility are called healthcare-acquired infections, or HAIs



#### **Common Infections**

 Some infections can become so serious that residents may need to be transported and/or admitted to a hospital if they become too ill for the long-term care facility to handle.



#### **Common Infections**

- If an infection is not recognized and treated, or if antibiotics are not effective – as can be the case if it is an antibiotic-resistant bacteria – sepsis can develop.
- Some common antimicrobial-resistant organisms seen in long-term care facilities include:
  - Methicillin-resistant Staphylococcus aureus (MRSA)
  - Clostridioides difficile (C. Diff)
  - Vancomycin-resistant Enterococcus



## **Common Infections**

- Some common infections in long-term care facilities include:
  - Pneumonia
  - Urinary tract infections (UTIs)
  - Gastro-intestinal infections
  - Wound infections
  - Vascular access device-associated infections



### **Respiratory Infections and Pneumonia**

- Respiratory infections, such as pneumonia, account for 35% of sepsis cases.
- Residents who come in contact with others who have a viral or bacterial respiratory illness may develop a respiratory infection.
- Residents with difficulty swallowing are at risk of inhaling food or drinks, which could lead to aspiration pneumonia.



# **Urinary Tract Infections**

- Urinary tract infections can be typically be managed safely and effectively when they are identified and treated quickly.
- An untreated UTI may spread to the kidney and can also cause sepsis
- Some risk factors of developing urinary tract infections include:
  - <u>Being a female</u>
  - Ineffective hygiene practices
  - Prolonged use of urinary catheters



#### **Other Causes of Infection**

- Residents also face increased risk of infection due to the treatments they receive at the facility. Chronic invasive devices can be a portal of entry into the body, which can lead to an infection.
- The following chronic invasive devices can be a source of infection:
  - Ventilator tubing
  - Access ports

-IV



#### **Wound Infections**

- Residents with frail skin can develop conditions which could become infected, such as:
  - Scratches or fissures
  - Skin tears
  - Wounds
  - Pressure ulcers (bed sores)



#### **Sepsis Prevention**

 As health care providers, we can work together to help prevent these infections before they progress to sepsis.



- Hand hygiene: Wash hands or use alcohol-based hand rubs when moving between residents to provide care.
- Effectively isolate and/or cohort residents if they show signs of illness or have a confirmed infection.
- Observe isolation protocols (gloves, gowns, and/or masks) when required.
- Clean rooms and objects as per your facility's protocol.



- Develop policies and procedures for staff residents and visitors including:
  - Encouraging visitors to wait to visit if they are not well
  - Encouraging visitors to perform hand hygiene upon entering the facility



- Educate residents and their families about managing chronic conditions that put residents at higher risk for infections and sepsis.
- Encourage residents and their families to stay up to date with appropriate vaccinations.



- Encourage proper nutrition for residents.
- Ensure wounds are kept clean and dressings are maintained as ordered.
- Educate staff and perform competencies on:
  - Catheter care
  - IV site
  - Injection safety



#### **Sepsis Prevention**

- Educate staff on signs and symptoms of sepsis:
  - Elevated heart rate
  - Weak pulse
  - Confusion or disorientation
  - Extreme pain or discomfort
  - Fever or chills
  - Shortness of breath
  - Clammy skin



# Why is this so important?

- Sepsis is a medical emergency and develops quickly.
- Sepsis can cause irreversible damage including death – if not treated early. With prompt recognition of symptoms and early treatment, most residents survive.



## Why is this so important?

- In most cases, a resident who is suspected to have sepsis will need to be transferred to a hospital to receive intensive evaluation and treatment.
- With early recognition and treatment, long-term care professionals can improve the outcomes of residents with infections and sepsis and help save lives.



#### 4 WAYS TO GET AHEAD OF SEPSIS



#### Infections put you and your family at risk for a life-threatening condition called sepsis.

Sepsis is the body's extreme response to an infection. It is life-threatening, and without timely treatment, sepsis can rapidly lead to tissue damage, organ failure, and death. Sepsis happens when an infection you already have—in your skin, lungs, urinary tract or somewhere else—triggers a chain reaction throughout your body.

Anyone can get an infection, and almost any infection can lead to sepsis.



https://www.cdc.gov/sepsis/pdfs/Consumer infographic four-waysto-get-ahead-of-sepsis\_print-only\_508.pdf



## Citations

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## **Questions?**

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