OBJECTIVES

1. Identify causes of sepsis in the post-acute setting.

2. Understanding signs and symptoms of sepsis for early recognition and reduction of hospital re-admission.

3. Discuss the Home Care Sepsis Tool & Protocol

CDC’s updated stats are showing

- More than 1.5 million people get an infection each year in the U.S.
- About 250,000 Americans die from infections each year
- 1 in 3 patients who die in a hospital from sepsis
National Statistics

- Sepsis is the leading cause of death in U.S. hospitals.
- 62% of people hospitalized with sepsis are re-hospitalized within 30 days.
- As many as 92% of sepsis cases originate in the community.
- Mortality from sepsis increases 8% for every hour that treatment is delayed.
- As many as 80% of sepsis deaths could be prevented with rapid diagnosis and treatment.

Top Five Most Expensive Conditions Treated in U.S. Hospitals 2018

Sepsis...What it isn’t

- Sepsis is NOT a disease
- It is NOT contagious
Sepsis...What it is

- It is the body’s overwhelming and life threatening response to an infection.
- The most frequently identified pathogens that cause infections that can develop into sepsis include:
  - Staphylococcus aureus (staph),
  - Escherichia coli (E. coli) and C-difficile
  - Group A Streptococcus and Influenza
- As part of the body’s inflammatory response to fight infection, chemicals are released into the bloodstream. These chemicals can cause blood vessels to leak and clot, meaning organs like the kidneys, lung, and heart will not get enough oxygen. The blood clots can also decrease blood flow to the legs and arms leading to gangrene.
- Septic shock is defined as a subset of sepsis that is profound enough to substantially increase mortality over sepsis alone.

Identify causes of sepsis in the post-acute setting

- Most common types of infections that are often linked with sepsis
  - Lung (respiratory/pneumonia) secondary complication of flu is pneumonia
  - Urinary tract infections UTI
  - Skin and wound including MRSA
  - Enteric (GI) diseases
  - Blood Stream Infections(bacteremia)

The word "sepsis" was first introduced by Hippocrates (ca. 460-370 BC) and is derived from the Greek word sipsi ("make rotten").
Identification of Sepsis

WHAT SHOULD I DO IF I SUSPECT SEPSIS?
• Immediately alert clinicians in charge if it is not you.
• Know your facility’s existing guidance for diagnosing and managing sepsis.
• Start antibiotics as soon as possible, in addition to other therapies appropriate for that individual patient.
• Check patient progress frequently. Reassess antibiotic therapy 24-48 hours to stop or change therapy as needed. Be sure antibiotic type, dose, and duration are correct.

Progression of Sepsis

SIRS (Systemic Inflammatory Response Syndrome)
• Widespread inflammatory response to microbial invasion or cell injury
• May or may not be due to infection
• Signs & Symptoms:
  ✓ Fever
  ✓ Tachycardia
  ✓ Tachypnea
  ✓ Leukocytosis or leukopenia
Sepsis Acronym:

- S: shivering, fever or cold
- E: extreme pain or discomfort
- P: pale or discolored skin
- S: sleepy, difficult to rouse, confused
- I: “I feel like I might die”
- S: shortness of breath

Significance of Home/Community Role and Response

- Commonly misunderstood as a hospital problem, over 80% of sepsis cases originate in home and community.
- Time to treatment is critical – mortality increases 8% every hour that treatment is delayed.
- Early identification and treatment are the key to improved outcomes and reduced costs.
- Biggest next opportunity lies in public awareness and primary care education and training.

HCA Sepsis Screening Tool

[Image of HCA Sepsis Screening Tool]

http://stopsepsisathomeny.org/about-us/sepsis-screening-tool/
Signs and Symptoms of Sepsis

- Symptoms: Just don't look right. Patient is weak, more confused, and have other symptoms of infection
  - Urinary Tract = frequency, urgency, burning on urination, or pain
  - Respiratory = cough, shortness of breath, increase in sputum
  - Skin = draining wound, redness, swelling, and warm to touch
  - Neurologic = confusion, headache, stiff neck and sensitivity to light
Early recognition signs:

Initiate the 100, 100, 100 rule staff screen

- To reduce the chances of employing broad spectrum antibiotics for sepsis, prevent infections from occurring in the first place.
- To reduce the chances of acquiring multi-drug resistant pathogens, which makes treatment of sepsis more challenging, emphasize infection control measures.

The Relationship of Infection Prevention to Sepsis and Antimicrobial Stewardship

- To promote the appropriate use of antimicrobials and combat antimicrobial resistance, the surviving sepsis campaign recommends that empiric antimicrobial therapy be narrowed once pathogen identification and sensitivities are established and/or adequate clinical improvement is noted.
- The surviving sepsis campaign also recommends that an antimicrobial treatment duration of 7-10 days is adequate for most serious infections associated with sepsis and septic shock.
Antimicrobial Therapy

- Start P.O. Antibiotics if infection without sepsis (pre-sepsis)
- Empiric broad-spectrum IV antimicrobial therapy initiated as soon as possible when sepsis or the risk of sepsis is identified

Educate Patients (and their Families) About Infection Prevention, Antibiotic Stewardship & More

- The informed patient is more likely to be adhere with therapy, and can assist in preventing infection and understand when antibiotics are needed - and when they are not.
- The informed family member can also learn how to prevent infection.

Infection Prevention = Sepsis Prevention
Many infections can be prevented

- Get vaccinations recommended by your healthcare provider
- Care for wounds properly (keep clean and covered until healed)
- Awareness of higher risk for seniors (>65) and the very young (<1 year)
- Manage chronic conditions (diabetes, lung, kidney, liver disease) • Special care for people that are immunosuppressed
What else can be done to prevent Sepsis?

- Make sure you, your staff, visitors and resident’s WASH THEIR HANDS
- How to engage people to wash their hands:
  - Make hand hygiene a topic of conversation with your residents
  - Address hand hygiene before you begin your care
  - Explain how and why you clean your hands before, after, and sometimes during patient care.
  - THANK THEM FOR BEING ENGAGED IN THEIR CARE

Get your flu shot - encourage staff, patients and families get vaccinated against the flu

- Sepsis.org – 2.5 million visits a year
- Award winning educational videos
- PSAs (video, radio, all media)
- Sepsis 911 Community Education kit (general, aging population)
- Sepsis Information Guides - 45+
- Tri-fold brochures
- Erin’s Campaign for Kids
- Sepsis and Children kit • Posters, infographics, symptoms cards
- Spanish-language materials
Patient Teaching for prevention

Green Zone
No signs of infection.

Patient Teaching for prevention

Yellow Zone
Take action today.

Patient Teaching for prevention

Red Zone
Take action now!
Recovery:

- Many individuals fully recover from sepsis.
- Many others are left with long-lasting effects, such as missing limbs or organ dysfunction, like kidney failure.
- Other after-effects of sepsis are less obvious, such as memory loss, anxiety, or depression.

Questions and Thoughts?

Thank You!

Patricia Howell RN, BSN, WCC, CFCS
Clinical Support Manager
Patricia.howell@mckesson.com
McKesson Clinical Connection 877.611.0081 or visit
mms.mckesson.com/mckesson-clinical-connection
References

- Minnesota Hospital Association. Seeing sepsis: early identification saves lives [Seeing Sepsis Long Term Care Resources online]. [cited 2016 Feb 10]. Available from Internet:

References