Sepsis
Severe Sepsis and Septic Shock

2017
Objectives:

- Understand the criteria for Sepsis, Severe Sepsis and Septic Shock
- Understand the treatment for Severe Sepsis by utilizing the CMH Sepsis Alert
- Understand the process by which we carry out the Sepsis Alert
What is Sepsis?

- Sepsis is a life threatening condition that arises when the body’s response to an infection injures its own tissues and organs.

- Sepsis leads to shock, multiple organ failure and death, especially if not recognized early and treated promptly.
How does Sepsis impact our patients?

- Sepsis kills more people each year than Breast Cancer, Colorectal Cancer, Pancreatic Cancer, and Prostate Cancer COMBINED!
- Patients diagnosed with Sepsis have a mortality rate of 28 to 50%
SEPSIS CORE MEASURE:

- The Sepsis Core Measure is **all or nothing**, meaning we either provided the best possible care or we did not.
- All the measures must be met in order to meet the core measure.
Why does the Severe Sepsis/Septic Shock core measure matter to me?

- It’s the best care we can give to our patients.
- The results of our care is reported on the Hospital Compare website.
- Payments from CMS will be based, in part, by our performance on this measure.
Sepsis Criteria:

There must be a known or suspected Infection

- A Physician or RN can document confirmed, suspected, or possible infection
- This must be documented before administration of a antimicrobial

And

2 or more SIRS (Systemic Inflammatory Response Syndrome), which are:

- Temperature <96.8 or >100.4
- Heart Rate >90 bpm
- Respiratory Rate >20/min
- WBC count <4,000 or >12,000 or >10% Bands
Severe Sepsis = Sepsis + Acute Organ Dysfunction

Acute Organ Dysfunction is defined by any ONE of the following:

- Lactate $>2$ mmol/L
- INR $>1.5$ or aPTT $>60$ seconds
- Platelet count $<100,000$
- Bilirubin $>2$ mg/dl
- Creatinine $>2$, or urine output $<0.5$ mL/kg/hour for 2 hours
- Systolic Blood Pressure (SBP) $<90$ mmHg, or mean arterial pressure $<65$ mmHg, or decrease in SBP more than 40 mmHg from previously recorded SBP
Septic Shock

- Septic shock = Severe Sepsis with hypotension unresponsive to fluid resuscitation (30ml/kg) OR
- Lactate >4

Hypotension is defined as:
Systolic blood pressure <90 or
Mean Arterial pressure <65 or
Decrease of Systolic blood pressure >40 points
CMH Severe Sepsis / Septic Shock Protocol

Severe Sepsis 3 hour Counter: 
To be completed within 3 hours of time of presentation:
1. Measure lactate level 
2. Draw Blood cultures (before antibiotic administration) 
3. Administer Broad Spectrum Antibiotics 
4. Begin administration of NS or Lactated Ringers 30ml/kg for hypotension or lactate >4mmol/L
Severe Sepsis 6 hour Counter:
To be completed within 6 hours of time of presentation:

1. Repeat Lactate level (if initial lactate was >2)
2. Crystalloid fluid administration must be completed
3. Repeat Focused Exam
SEPSIS ALERT

This is our CMH Sepsis Alert

Initiate form when a patient has a suspected, possible, or determined infection AND Two SIRS

This Sepsis Alert Form is a permanent record for the patient’s chart
SEPSIS ALERT

**Step 1:** Complete the Suspected or Known Source of Infection

**Step 2:** Determine If temperature, pulse, respirations, WBC, Bands, or SBP meet SIRS criteria

**Step 3:** Complete The time that SIRS or Sepsis was determined
SEPSIS ALERT

Step 4: Initiate the Sepsis Alert

- Order set
- Notify physician
- Notify House Supervisor
- Document source of suspected/known infection before administration of antimicrobial
SEPSIS ALERT

Step 5: Determine if Severe Sepsis:

- SBP < 90 or MAP < 65 or decrease of SBP > 40 mmHg
- Acute Resp. Failure
- Creatinine > 2.0
- Urine output < 0.5 ml/kg for 2 hr.
- Platelet ct < 100,000
- Bilirubin > 2 mg/dl
- INR > 1.5 or PTT > 60 sec.
- Lactate > 2 mmol/L

* Lactate > 4 mmol/L indicates Septic Shock
SEPSIS ALERT

Step 6: Complete the 3 Hour Criteria Section:

- **Lactic Acid Drawn**
- **Blood Cultures drawn x 2**
- **Administer Antibiotic** (After blood cultures drawn and documentation of suspected or known infection)
- **Fluid bolus initiated if indicated; Calculate Patient weight by 30 ml/kg (total to infuse)**
SEPSIS ALERT

Step 7: Complete the 6 Hour Criteria Section:

- Lactic Acid Re-Drawn at 4 hr
- Administer Vasopressors for hypotension that does not respond to initial fluid resuscitation
- Repeat Focused Exam

Step 8: Review the Sepsis Alert Form for completion of all Dates, Times, and Signatures
If you haven’t pulled all your hair out by now, you are on the right track!

QUESTIONS?

Contact: Diana Davis, Quality Outcomes Coordinator (937) 382-9315
SEPSIS

MEDICAL STAFF ACKNOWLEDGEMENT

I hereby certify that I have received and read the Clinton Memorial Hospital’s **SEPSIS PowerPoint Training**. I understand that it is my responsibility to view the PowerPoint, understand its contents and seek guidance on any areas that require clarification.

**Print Name:** _________________________________

**Signed:** ____________________________________

**Date:** ______________________________________

Please print and retain a copy for your records and return the signed acknowledgement form to the Medical Staff Services office.

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