Improving Sepsis Outcomes

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6/9/16
Overview

• **Background**

• **Sepsis Program Goals**

• **Bundle**
  – Gaps
  – Strategies

• **Outcomes/Results**

• **Questions**
Sepsis Background

- Number one driver of mortality.
- Kills more than 215,000 people each year.
- 6\textsuperscript{th} most common cause of hospitalization.
- Single most expensive condition for hospitalization.
- 20-30\% of ICU admissions.
- 40\% of ICU costs.
- 25\% of 30 day readmission rate.
- 48\% of 180 day readmission rate.
Sepsis Program Goals

- Decrease sepsis mortality rate.
- Increase recognition of sepsis to increase early treatment and survival.
- Decrease LOS and costs.
- Close gap between coding and documentation.
- Chart review to close gaps in care.
- Increase bundle compliance.
- Staff/physician education.
- Seamless care for sepsis patients regardless of where diagnosed.
1. Measure lactate level.
2. Obtain blood cultures prior to administration of antibiotics.
3. Administer broad spectrum antibiotics.
4. Administer 30 mL/kg crystalloid IV fluids for hypotension or lactate $\geq 4$.
5. Apply vasopressors (for hypotension that does not respond to initial fluid resuscitation) to maintain a mean arterial pressure (MAP) 65mm Hg.
7. Re-measure lactate if initial lactate was elevated ($\geq 2$).
1. Lactate

• Gaps
  – Late identification of sepsis, especially in med-surg units.

• Best Practice
  – Screen patients for sepsis in triage and each shift in med-surg units.
  – Consistent use of sepsis order set upon identification.
# ED Screening for Nursing

## Sepsis Screening Section A Infection

<table>
<thead>
<tr>
<th>Infection Criteria Present</th>
<th>✓ Documented/Suspect Infect</th>
<th>□ Post Op/Invasive Proc</th>
<th>□ Immunocompromised</th>
</tr>
</thead>
</table>

Any Answers Checked In Section A Infection

○ Yes  ○ No

If No, continue triage.

## Sepsis Screening Section B SIRS

<table>
<thead>
<tr>
<th>Systemic Inflammatory Response Syndrome</th>
<th>✓ HR &gt;= 90</th>
<th>□ Temp &gt;= 100.4 F/38 C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ RR &gt;=20</td>
<td>□ Temp &lt;= 98.8/36 C</td>
</tr>
<tr>
<td></td>
<td>□ WBC &lt;4, &gt;12, Or 10% Bands</td>
<td>□ Neuro-Alt LOC/Confusion</td>
</tr>
</tbody>
</table>

Two Or More Answers Or Neuro Changes In Section B = +Screen

○ Yes  ○ No

If No, Continue to Monitor. If Yes, Notify Physician.

Notified Physician

○ Yes  ○ No  Comment

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St. Joseph Health
St. Joseph Hoag Hospital
A member of the St. Joseph Hoag Health alliance
### In-Patient Screening

<table>
<thead>
<tr>
<th>Infection Criteria Present</th>
<th>Documented Infection</th>
<th>Immunocompromised</th>
<th>Suspected Infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspected infection examples (not limited to): pneumonia, UTI, central line, dialysis catheter or PICC line infection, soft tissue infection, or peritonitis.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Any Answers Checked In Section A - Infection
- **Yes**
- **No**

#### B - SIRS
- **Systemic Inflammatory Response Synd (SIRS) Criteria Present**
  - HR > 90
  - RR > 20
  - WBC < 4, > 12, or 10% Bands
  - Temp over 100.3°F/ 38°C
  - Temp below 96.6°F/36°C
  - Neuro- Alt. in LOC

#### Two Or More Answers Checked In Section B - SIRS
- **Yes**
- **No**

#### If Yes in A and Yes in B = Positive Sepsis Screen
- Notify your appropriate team member for positive sepsis screen.

#### If Positive Sepsis Screen - Name Of Individual Notified

#### C - Organ Dysfunction - Severe Sepsis Screen
- **Altered LOC/Confusion**
- **Creatinine > 2 &/Or Low UOP**
- **Sat < 90% On RA**
- **Platelets < 100,000**
- **SBP < 90/map < 65 p Fluid Res**
- **Total Bili > 2.1**
- **PaCO2 < 32 mmHg**
- **Lactic Acid > 2 mmol/L**
- **CO2 < 20 mmol/L (on BMP)**
- **Incrsed Bld Glucose - no DM**
- **Low UOP = < 0.5 ml/kg/hr**
- **Increased Bood Glucose = > 140 mg/dL**

#### Any Answers Checked In Section C - Organ Dysfunction
- **Yes**
- **No**

#### Severe Sepsis Screen
- **If Positive Sepsis Screen, suggests Severe Sepsis. Notify your appropriate team member for positive severe sepsis screen.**

#### If Positive Severe Sepsis - Name of Individual Notified
2. Blood Cultures

• **Gaps**
  – Difficult lab draws.
  – Timing on lab specimen versus timing in electronic medical record.
  – Late identification of sepsis.

• **Best Practice**
  – Screen patients for sepsis in triage and each shift in med-surg units.
  – Consistent use of sepsis order set upon identification.
  – Blood culture pre-checked on order set.
  – Code Sepsis where teams follow a protocol checklist.
3. Antibiotics: Gaps

• Early recognition.
• Process flow for antibiotic administration.
  – Can result in delayed or missed dose.
• CMS monotherapy for broad spectrum may not be appropriate for specific patient population based on antibiogram.
• Availability of the antibiotics.
• When there is need to administer two antibiotics for broad spectrum coverage, the second antibiotic may be delayed.
3. Antibiotics: Best Practice

- Screen patients for sepsis in triage and each shift in med-surg units.
- Consistent use of sepsis order set upon identification.
  - Simple way for physicians to choose the appropriate antibiotics.
- Have antibiotics readily available.
- 24/7 sepsis nurse.
### 3. Antibiotics

<table>
<thead>
<tr>
<th>SJ-ED-Sepsis-Soft-Tissue-InfX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Initial Empiric Anti-infective Therapy for Pts with Diagnosis of Sepsis</td>
</tr>
<tr>
<td><strong>SOFT TISSUE INFECTION</strong></td>
</tr>
<tr>
<td>*First-line Abx: Select Zosyn <em>AND</em> Vancomycin</td>
</tr>
<tr>
<td>Zosyn 3.375 Gm IVPB stat ONE</td>
</tr>
<tr>
<td>BOTTLE COMMENT:</td>
</tr>
<tr>
<td>Over 30 mins after blood cultures (if ordered). (Generic: Piperacillin-Tazobactam). <em>To be given in ED only</em></td>
</tr>
<tr>
<td>Edit</td>
</tr>
<tr>
<td>Vancomycin (Vancocin) 1 Gm IVPB stat ONE</td>
</tr>
<tr>
<td>BOTTLE COMMENT:</td>
</tr>
<tr>
<td>Over 60 mins after blood cultures (if ordered). <em>To be given in ED only</em></td>
</tr>
<tr>
<td>Edit</td>
</tr>
<tr>
<td>For necrotizing polymicrobial infections,</td>
</tr>
<tr>
<td>ADD Clindamycin to Zosyn + Vancomycin</td>
</tr>
<tr>
<td>Clindamycin (Cleocin) 900 Mg IVPB stat ONE</td>
</tr>
<tr>
<td>BOTTLE COMMENT:</td>
</tr>
<tr>
<td>Over 60 mins after blood cultures (if ordered). Black box warning. <em>To be given in ED only</em></td>
</tr>
<tr>
<td>Edit</td>
</tr>
<tr>
<td>*Abx for Beta-lactam Allergy:</td>
</tr>
<tr>
<td>Select Levofloxacin <em>AND</em> metroNIDAZOLE <em>AND</em> Vancomycin</td>
</tr>
<tr>
<td>REMINDER: Beta-Lactam Allergy = IgE-mediated reactions: anaphylaxis, bronchospasm, or severe rash</td>
</tr>
<tr>
<td>Levofloxacin (Levaquin) 500 Mg IVPB stat ONE</td>
</tr>
<tr>
<td>BOTTLE COMMENT:</td>
</tr>
<tr>
<td>Over 60 mins after blood cultures (if ordered). Black box warning. <em>To be given in ED only</em></td>
</tr>
<tr>
<td>Edit</td>
</tr>
<tr>
<td>Metronidazole (Flagyl) 500 Mg IVPB stat ONE</td>
</tr>
<tr>
<td>BOTTLE COMMENT:</td>
</tr>
<tr>
<td>Over 60 mins after blood cultures (if ordered). Black box warning. <em>To be given in ED only</em></td>
</tr>
<tr>
<td>Edit</td>
</tr>
<tr>
<td>Vancomycin (Vancocin) 1 Gm IVPB stat ONE</td>
</tr>
<tr>
<td>BOTTLE COMMENT:</td>
</tr>
<tr>
<td>Over 60 mins after blood cultures (if ordered). <em>To be given in ED only</em></td>
</tr>
<tr>
<td>Edit</td>
</tr>
</tbody>
</table>
3. Process Flow for Antibiotics in ED

1. Identify patient for sepsis
2. Where is the source? Lung, urine, abdomen, blood, CSF, skin
3. Healthcare associated?
4. Order placed by Physician
5. RN verifies IV site
6. RN retrieves antibiotic from Pyxis and administers per order
7. Antibiotic Available in Pyxis

RN acknowledges and verifies order for antibiotics
3. Process Flow for Antibiotics in ED

1. Identify patient for sepsis
2. Where is the source? Lung, urine, abdomen, blood, CSF, skin
3. Healthcare associated?
4. Order placed by Physician
5. RN verifies IV site
6. Antibiotic Not Available in Pyxis
7. RN notifies secretary to scan antibiotic order to Pharmacy STAT
8. Antibiotic order is received and verified by Pharmacy
9. RN call Pharmacy to verify receipt and processing of order
10. Pharmacy sends antibiotic via tub system
11. RN checks the tube system and administers per order
4. IV Fluid: Gaps

- Primarily manual abstraction.
- Confusion regarding where to document bolus in EMR.
- Current process of documenting fluid bolus per weight based protocol in Medication Record will not translate to new coding standards.
- Meditech limitations for documentation of bolus in I and O Record.
- Accuracy of Input and Output.
- Need education for appropriate process for fluid challenge.
- Partial fluid resuscitation—(CHF, Dialysis, ARDS).
- Is it part of the 3 hour bundle or the 6 hour bundle?
4. IV Fluids: Best Practice

- 24/7 Sepsis Nurse.
- Order set includes 30mL/kg in ED and Critical Care order set with a single click for physicians.
- Align compliance rates with departmental goals and physician contracts.
- Align strategic goals and outcomes to physician contracts.
4. 30 mL/kg IV Fluid Order

**SJ-ED-Sepsis-Med**

**IV Fluids: Fluid Resuscitation Initial Bolus Crystalloids**

REMINDER: If the 30 mL/kg fluid bolus order below is not ordered, the provider must document a contraindication.

Ns 250 mL IV once PRN (See Label Comment)

BOTTLE COMMENT:
Over 15 min X 1 Prn to maintain CVP > 8 mmHg if a CVP present.
**To be given in ED only**

x 1 Days

NS 30 mL/kg Bolus
0 ML IV once ONE - Protocol

DOSE INSTRUCTIONS:
See Protocol

COMMENTS:
Bolus 30 mL/Kg @ 999 mL/Hr per Protocol for Severe Sepsis, Septic Shock (SBP<90 mmHg) or Lactate level > 2 mmol.

**To be given in ED only**

PROTOCOL:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Dose/Route</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Pt Wt &lt; Or = 33.3 Kg</td>
<td>Give 1,000 mL Ns Bolus</td>
<td></td>
</tr>
<tr>
<td>If Pt Wt 33.4 Kg To 50 Kg</td>
<td>Give 1,500 mL Ns Bolus</td>
<td></td>
</tr>
<tr>
<td>If Pt Wt 50.1 Kg To 66.6 Kg</td>
<td>Give 2,000 mL Ns Bolus</td>
<td></td>
</tr>
<tr>
<td>If Pt Wt 66.7 Kg To 83.3 Kg</td>
<td>Give 2,500 mL Ns Bolus</td>
<td></td>
</tr>
<tr>
<td>If Pt Wt 83.4 Kg To 100 Kg</td>
<td>Give 3,000 mL Ns Bolus</td>
<td></td>
</tr>
<tr>
<td>If Pt Wt 100.1 Kg To 116.6 Kg</td>
<td>Give 3,500 mL Ns Bolus</td>
<td></td>
</tr>
<tr>
<td>If Pt Wt 116.7 Kg To 133.3 Kg</td>
<td>Give 4,000 mL Ns Bolus</td>
<td></td>
</tr>
<tr>
<td>If Pt Wt 133.4 Kg To 150 Kg</td>
<td>Give 4,500 mL Ns Bolus</td>
<td></td>
</tr>
<tr>
<td>If Pt Wt &gt; 150.1 Kg</td>
<td>Give 5,000 mL Ns Bolus And Re-Assess</td>
<td></td>
</tr>
</tbody>
</table>

NS
IV ONE 150 MLS/HR

BOTTLE COMMENT:
Start after IV Boluses and CVP > 8 mmHg. **To be given in ED only**
5. Vasopressors

• Gaps
  – Varying practice for initiating vasopressors in the ED.
  – Manual abstraction of data required.
6. Reassessment of Volume Status and Tissue Perfusion (Literature)

• In the Event of Persistent Arterial Hypotension Despite Volume Resuscitation (Septic Shock) or Initial Lactate ≥4 mmol/L (36 mg/dL) measure the following:
  – Central Venous Pressure (CVP).
  – Central Venous Oxygen Saturation (ScvO2).
6. Reassessment of Volume Status and Tissue Perfusion (CMS)

• Physician/APN/PA document all the following:
  – Vital signs
  – Cardiopulmonary status
  – Capillary refill
  – Peripheral pulses
  – Skin assessment

OR

• Complete any two:
  – CVP
  – SvO2
  – Bedside cardiovascular US
  – Passive leg raise by physician/APN/PA or fluid challenge

Must be documented at or after identification of septic shock and within 6 hour window.
# 6. Physician Documentation

**Sepsis Documentation**

**Sepsis Documentation Type**
- **Document type**
  - sepsis - physical exam
  - sepsis - bedside monitoring

**Vital Signs**
- **Vital Signs 8 hrs**
- **Date Time Temp**
- **PulseResp**
- **O2 Delivery**
- **O2 Flow Rate**
- **FiO2 29/24**

**Sepsis - Physical Exam**
- **Chest**
  - clear
  - crackles
  - wheezes
  - rhonchi
  - dullness
  - rales
  - no wheezes
  - no rales
  - OTHER

- **Cardiovascular**
  - regular rate and rhythm
  - bradycardic
  - tachycardic
  - gallop rhythm
  - bigeminy
  - trigeminy
  - heart rate erratic
  - irregular
  - rub
  - murmur
  - OTHER

- **Capillary refill**
  - normal
  - brisk
  - delayed
  - absent
  - OTHER

- **Peripheral pulses**
  - normal
  - strong
  - weak
  - absent
  - by Doppler
  - OTHER

- **Skin color**
  - normal color
  - erythematous
  - flushed
  - pale
  - cyanotic
  - pink
  - mottled

**Sepsis - Bedside Monitoring**
- **CVP measures**
  - less than 8
  - 8 - 12
  - greater than 12

- **ScvO2 measures**
  - greater than or equal 7
  - less than 70%

- **Bedside ultrasound performed**
  - Yes
  - No

- **Passive leg raise/ fluid bolus**
  - Yes
  - No

**Care Plan and Time Spent**
- **Care plan**
  - as ordered
- **Critical care time/minutes**
  - as ordered
7. Repeat Lactate

- **Gaps**
  - If order is pre-checked for 4 hours later and the patient is admitted prior to that lab draw, the order will be missed unless reordered.
  - Not all ED physicians use the standardized order sets.

- **Best Practice**
  - Pre-checked repeat lactate in 4 hours in order sets.
  - Require physicians to use the standardized order sets.
  - 24/7 Sepsis RN.
SEPSIS Screening & Treatment in ECC

**EXCLUSIONS (must be documented by Physician/APN/PA)**
- Patient expires or is placed on comfort measures only within 3 hours of triage for severe sepsis
- Patient expires or is placed on comfort measures only within 6 hours of triage for septic shock
- Patient or surrogate refuses blood draws, fluids, or antibiotics
- Patient is a transfer from another hospital or ambulatory surgery center

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**CALL CODE SEPSIS**

Date/Time of triage (Time Zero)

Patient has SEVERE SEPSIS

3-HOUR and 6-HOUR TIMERS START FROM TIME OF TRIAGE

Consider a DSU bed

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**COMPLETE WITHIN 3 HOURS OF TRIAGE**

Patient has SEVERE SEPSIS WITH SEPTIC SHOCK

Consider a tele bed

Is there at least 1 sign of acute organ dysfunction?
- SBP < 90 or MAP < 65
- A decrease in SBP > 40 points
- Creatinine > 2.0
- Urine output < 0.5 mL/kg/hr for 2 hrs
- Bilirubin > 2
- Platelet count < 100K
- INR > 1.5 or aPTT > 60 sec
- Lactate > 2
- ALOC / confusion more than usual

YES

**COMPLETE WITHIN 6 HOURS OF TRIAGE**

Re-assess volume status and tissue perfusion

- Date/Time of EACH of the items below
  - Continue administration of 30 mL/kg crystalloid fluid bolus
  - MD/APN/PA evaluate and document all of the following:
    - Vital signs
    - Cardiopulmonary status
    - Capillary refill
    - Peripheral pulses
    - Skin
  - Complete any 2 of the following:
    - CVP measurement
    - Svo2 measurement
    - Bedside cardiovascular ultrasound
    - Passive leg raise by MD/APN/PA or fluid challenge

Assess BP within 1 hr of bolus completion

Is patient still hypotensive?

YES

Start vasopressor

Repeat lactate level

NO

Start IV fluids

---

**Screen for SEPSIS**

Does the patient meet 2 or more SIRS criteria?
- Temp > 38.3°C or < 36.0°C
- Heart Rate > 90
- Respiratory Rate > 20
- WBC > 12K or < 4K or > 10%
- Bands
- ALOC

YES

SCREEN FOR SEVERE SEPSIS

Is the patient still hypotensive despite initial fluid bolus? OR Is the lactate > 4?

YES

Administer appropriate broad-spectrum IV antibiotic

Excludes patients on antibiotics 24 hrs prior to time zero

---

**Patient will need a critical care bed**

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**Date/Time of EACH of the items below**

- Date/Time antibiotic administered
- Antibiotic selection
- Date/Time lactate drawn
- Lactate result
- Date/Time blood cultures drawn
- Date/Time fluid bolus initiated

- Draw lactate
- Draw blood cultures
- Start administration of 30 mL/kg crystalloid fluid bolus

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**NOTE:**

Must be documented at or after identification of septic shock and within 6 hour window.
Dedicated Sepsis RN

• Rapid Response Nurse with expertise in evidence-based treatment guidelines for sepsis.
• Promote early goal directed therapy.
• Increase compliance with all bundle elements.
# Sepsis RN Checklist

<table>
<thead>
<tr>
<th>Patient Sticker</th>
<th>Sepsis Identification (All suspected Sepsis patients)</th>
<th>3 Hr Bundle Compliance (For all identified Severe Sepsis patients)</th>
<th>6 Hr Bundle Compliance (For all identified Severe Sepsis &amp; Septic Shock patients)</th>
<th>24 Hour Proactive Rounding (PTS NOT admitted to MICU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE: __________</td>
<td>3 HR TIME GOAL: _________________________</td>
<td>SEVERE SEPSIS CRITERIA:</td>
<td>6 HR TIME GOAL: _________________________</td>
<td>UNIT ADMITTED:</td>
</tr>
<tr>
<td>TIME ZERO: ________</td>
<td></td>
<td>Suspected OR Known Infection:</td>
<td></td>
<td>□ MICU/CVICU 7-12 □ DSU/VCICU 1-6</td>
</tr>
<tr>
<td>(severe sepsis first identified in ED or on the floor)</td>
<td></td>
<td>□ YES □ NO</td>
<td></td>
<td>□ OTHER (Rm #): ________</td>
</tr>
<tr>
<td>DEPARTMENT IDENTIFIED:</td>
<td></td>
<td>At least 2 SIRS: □ YES □ NO</td>
<td></td>
<td>1st Proactive Rounding completed:</td>
</tr>
<tr>
<td>EOC: □ YES □ NO</td>
<td></td>
<td>Lactate &gt;2: □ YES □ NO</td>
<td></td>
<td>□ YES □ NO Time: ________</td>
</tr>
<tr>
<td>if NO: Other unit ________</td>
<td></td>
<td>Acute Organ Dysfunction:</td>
<td></td>
<td>2nd Proactive Rounding completed:</td>
</tr>
<tr>
<td>RRT Call Time: __________</td>
<td></td>
<td>□ YES □ NO</td>
<td></td>
<td>□ YES □ NO Time: ________</td>
</tr>
<tr>
<td>TYPE OF CALL:</td>
<td></td>
<td>Type of Acute Organ Dysfxn (Select below)</td>
<td></td>
<td>HANDED OFF TO MET RN:</td>
</tr>
<tr>
<td>□ Code Sepsis (Emergency ED/IP)</td>
<td></td>
<td></td>
<td></td>
<td>□ YES □ NO</td>
</tr>
<tr>
<td>□ Sepsis Consult</td>
<td></td>
<td>3 HR BUNDLE ELEMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ High Alert Report Positive Screen / Proactive Rounding</td>
<td></td>
<td>Initial Lactate: □ YES □ NO Time: ________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORDER SET: □ YES □ NO</td>
<td></td>
<td>Lactate Level:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYSICIAN: __________</td>
<td></td>
<td>BC: □ YES □ NO Time: ________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAME: __________</td>
<td></td>
<td>ABX: □ YES □ NO Time: ________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAI#: ________</td>
<td></td>
<td>Initial Fluid Challenge:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM#: ________</td>
<td></td>
<td>□ YES □ NO Time: ________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOB: __________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIRS CRITERIA</td>
<td>ACUTE ORGAN DYSFUNCTION</td>
<td>WHY WAS AN ELEMENT NOT Done OR DONE ON TIME?</td>
<td>COMMENTS / ISSUES (Circle # or Write in Description)</td>
<td></td>
</tr>
<tr>
<td>□ Temp &gt; 100.4°F or &lt; 97°F</td>
<td>□ NEURO: ALOC, Confusion</td>
<td>1) NO FLUIDS ORDERED / OR 30 ML/KG FLUIDS NOT ORDERED OR COMPLETED BECAUSE:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ HR &gt; 90 BPM</td>
<td>□ RESPIRATORY: Tachypnea, PaO2 &lt;70mmHg, SaO2 &lt;90%, PaO2/FiO2 &lt;300</td>
<td>a. ESRD (1A)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ RR &gt; 20 breaths/min</td>
<td>□ CARDIAC: Tachycardia, Hypotension, Altered CVP</td>
<td>b. CHF (1B)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ PaCO2 &lt; 32 mmHg</td>
<td>□ GENITOURINARY: Oliguria, Anuria, Elevated Creatinine (&gt;2)</td>
<td>c. OTHER (1C): __________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ WBC &gt; 12,000 cells/mm3, &lt;4,000 cells/mm3, &gt; 10% Bands</td>
<td>□ LIVER: Jaundice, Increased enzymes, decreased Albumin, increased PT</td>
<td>2) MD THINKS, &quot;NOT SEPSIS&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|  | □ COAGULATION: decreased platelets, increased PT/APTT, decreased Protein C, increased D-Dimer  | 3) MD SAYS, "It's a viral infection."
|  |  | 4) MD SAYS, "NO ABX because still working up patient/waiting for diagnostics."  |
|  |  | 5) Uncooperative Staff/MD: (please add description)  |
|  |  | 6) OTHER:  |  |  |
Overarching Best Practices

• Sepsis Coordinator
• 24/7 Sepsis RN
• Standardized order sets that are used every time
• Checklist
• Readily available resources
• Consistent method to obtain and disseminate data
• Align outcomes with strategic goals and physician contracts
Performance Improvement

Concurrent review

ID failures

ID gaps and potential root cause

Develop PI strategy

Pilot
Aligning Documentation with Clinical Performance

- Sepsis Coordinator
- 24/7 Sepsis RN
- Standardized order sets that are used every time
- Checklist
- Readily available resources
- Consistent method to obtain and disseminate data
- Align strategic goals and physician contracts
Outcomes / Results

Sepsis Mortality Rate
The percentage of patients who died after contracting sepsis.

January 2015: 15.28%
January 2016: 8.89%
Number of Lives Saved

The number of patients who were cured of sepsis in our care.

168

July 2015 to January 2016
Questions?