

# HQIC Community of Practice Call

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## Building Reliable Sepsis Mortality Prevention Practices: How Does Your Organization Measure Up?

September 21, 2023

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# Introduction

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Welcome!

**Shaterra Smith**

Social Science Research Analyst  
Division of Quality Improvement Innovation  
Models Testing  
iQuality Improvement and Innovations Group  
Center for Clinical Standards and Quality  
Centers for Medicare & Medicaid Services

# Agenda

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- Introduction
- Today's topic: **Building Reliable Sepsis Mortality Prevention Practices: How Does Your Organization Measure Up?**
- Presenters:
  - **Hartford HealthCare**
    - Tania Kosmo, Quality Performance Improvement Specialist
  - **Cynosure Health**
    - Kim Werkmeister, Senior Vice President
- Open discussion
- Closing remarks

## As You Listen, Ponder...

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- What impactful actions can you take as a result of the information shared today?
- How are you able to increase engagement within your facilities to ensure a true change in patient safety?
- Based on what you heard today, what activities do you currently have underway that can leverage immediate action over the next 30, 60 or 90 days?

# Meet Your Speakers

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**Tania Kosmo, MSN, RN, CNL**  
*Quality Performance  
Improvement Specialist*  
Hartford HealthCare, East  
Region



**Kim Werkmeister, MS, RN,**  
**CPHQ, CPPS**  
*Senior Vice President*  
Cynosure Health



# Hartford HealthCare

## Windham Hospital, Willimantic, CT

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September 2023



**EQIC**

EASTERN US QUALITY  
IMPROVEMENT COLLABORATIVE

# Windham Hospital

112 Mansfield Avenue, Willimantic, Connecticut



# East Region Sepsis Committee

- **Interdisciplinary team**
- **Monthly meetings cover:**
  - Celebrations and recognitions
  - Safety story (including 'Kudos Cases,' when available)
  - Data review
  - Open forum and discussion of new and in-process improvement project(s)



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# Road to success

- Education
- *Epic* electronic optimizations
- Sepsis tools



# Sepsis education

## Sepsis Snips for Sepsis Awareness Month

### What is Sepsis?

Sepsis occurs when chemicals released into the bloodstream to fight an infection trigger inflammatory responses throughout the body. This inflammation can trigger a cascade of changes that can damage multiple organ systems, causing them to fail (Mayo Clinic, 2018).

Sepsis is the **third leading cause of death** in the U.S., behind only heart disease and cancer, and is the **number one killer of children** worldwide (AACN, 2017).

Sepsis is a **time critical emergency** as sepsis drops about 8% every hour. Early recognition leads to early intervention.

*Time is tissue!*

### Scenario #1: Admitted Patient

68 y/o male that was admitted to the floor with pneumonia @ 03:00 1/1/22 is now noted with increased lethargy, tachycardia, and SpO2 of 86% on 4 L via nasal cannula @ 08:00 1/1/22

- **Vital Signs** 1/1/22 07:00: T 99.7, HR 112, RR 10, BP 92/68
- **Labs** 1/1/22 07:30: WBC 22.3
- **Antibiotic Given** 1/1/22 04:00: Rocephin

A Rapid Response is called and the patient is placed on **BIPAP** @ 08:30.

### Question #1

This patient meets \_\_\_\_\_ criteria at 08:30.

- Sepsis
- Severe Sepsis
- Septic Shock

Sepsis Worksheet			
SIRS	Sepsis	Severe Sepsis	Septic Shock
<ul style="list-style-type: none"> <li>Temp &gt; 38.0 or &lt; 36.0</li> <li>HR &gt; 90</li> <li>RR &gt; 20</li> <li>MAP &lt; 65</li> </ul>	<ul style="list-style-type: none"> <li>SBP &lt; 90 or MAP &lt; 65</li> <li>UOP &lt; 0.5ml/kg/h</li> <li>INR &gt; 1.5 or PTT &gt; 60 sec</li> <li>Bilirubin &gt; 2mg/dl</li> <li>Lactate &gt; 2.0</li> </ul>	<ul style="list-style-type: none"> <li>SBP &lt; 90 or MAP &lt; 65</li> <li>UOP &lt; 0.5ml/kg/h</li> <li>INR &gt; 1.5 or PTT &gt; 60 sec</li> <li>Bilirubin &gt; 2mg/dl</li> <li>Lactate &gt; 2.0</li> </ul>	<ul style="list-style-type: none"> <li>SBP &lt; 60 or MAP &lt; 45</li> <li>UOP &lt; 0.5ml/kg/h</li> <li>INR &gt; 1.5 or PTT &gt; 60 sec</li> <li>Bilirubin &gt; 2mg/dl</li> <li>Lactate &gt; 2.0</li> </ul>

Criteria for **Sepsis** is met @ 07:30 with:  
 • Source of Infection: Pneumonia @ 03:00  
 • 2 SIRS: HR 112 @ 07:00 & WBC 22.3 @ 07:30  
 Criteria for **Severe Sepsis** is met @ 8:30 with:  
 • Sepsis criteria (listed above) +  
 • Organ Dysfunction: BIPAP @ 08:30



## RN resident presentation

**SEPSIS SNIPS**

**Severe Sepsis-Leading to Shock**

"Initial hypotension?"

- SBP <90 or MAP <65 (**x2**)

Lactic Acid  $\geq 4.0?$  (**Shock**)

- (As a result of severe sepsis)

**Need Order for 30ml/kg NS/LR**  
Best practice = use a pump!

**SEPSIS SNIPS**

**Lactic Acid Scenario**

LA #1 = 2.0 (critical)

Per order, it is repeated

LA #2 = 2.1 (**SEP-1** critical)

Need #3 = **Repeat Again!**

Often, the repeat (if 2.1 or ↑) is the Severe Sepsis Presentation Time!

**SEPSIS SNIPS**

**Persistent Hypotension**

**Septic Shock** Present? LA  $\geq 4.0$  or SBP <90/MAP <65(x2) **after** boluses?

**Reassess vitals/BP frequently during 30mL/kg fluid infusion** - especially towards end & after to assess for "persistent hypotension"

**Need at least 2 BPs!**

**SEPSIS SNIPS**

**Sepsis = 2 SIRS + Infection**

**Severe Sepsis = Sepsis + Organ Dysfunction**

**Septic Shock = Severe Sepsis + Organ Failure**

**Severe Sepsis = Sepsis + Organ Dysfunction**

**Organ Dysfunction Criteria:**

- SBP < 90, or MAP < 65
- Creatinine > 2.0
- UOP < 0.5ml/kg/h > 2 hours despite adequate fluid challenge
- Platelets < 100,000/mm3
- INR > 1.5 or PTT > 60 sec
- Bilirubin > 2mg/dl
- Lactate > 2.0 (needs to be repeated)
- Acute Resp Failure w/Vent, CPAP, BIPAP

**SEPSIS SNIPS**

**Sepsis = 2 SIRS + Infection**

**SIRS (X2 different w/in 6H):**

- Temp >100.9°F or <96.8°F
- HR > 90
- Respirations > 20/min
- WBC > 12,000 or < 4000; or 10% bands differential

**Infection:**

- Suspected infection or diagnosed
- Need provider documentation w/in 6H

**SEPSIS SNIPS**

**Septic Shock = Severe Sepsis + Organ Failure**

**Organ Failure:**

- 2 -SBP < 90, MAP < 65 noted within the 1 hour after completion of target volume IVF (30ml/kg of LR or NS).
- Lactate  $\geq 4.0$

**PROVIDER SEPSIS SNIPS**

**Crystalloid Fluids**

- Use sepsis order set
- **Document** "30 ml/kg" & if "IBW used for BMI > 30", or the rx **amount** if CHF/ESRD
- Rate 126 ml/hr or ↑
- **.sepsisreeval** or perfusion focused exam **after** fluids

Don't forget skin, cap refill & distal pulses!

**STAR: ACT, REVIEW**

1. Blood cultures & lactic acid drawn & documented **before** abx in Epic?
2. Abx ordered and given w/in 3 hr of ED arrival?
3. Repeat lactic acid drawn?
4. **Frequent vitals/BP** during boluses in SS/Shock?

**TIME IS TISSUE!**

**PROVIDER SEPSIS SNIPS**

**IF SEVERE SEPSIS/SHOCK**

- Document infection (timestamp)
- Order blood cultures **STAT** (if not w/in last 24 hr)
- Order lactic acid + repeats **STAT** (for lab timeliness)
- Timely IV abx order
- Order set for fluids ( $\geq 126$  ml/hr)

**TIME IS TISSUE!**

Has your patient developed new:  
Fever? Hypotension? AMS?  
**Think Sepsis!**

**Notify provider, document, prep for Sepsis Bundle orders:**  
Bleed or x 2. Lactic acid + repeat(s).  
IV antibiotic(s), fluid boluses, frequent vitals

Find this Tool on the HHC Intranet Clinical Resources Sepsis

**Sepsis Worksheet**

Hartford HealthCare

Connections To Do Completed Profile Catalog Event Calendar Help

**HHC PCSO - Early Recognition and Management of Sepsis** Certificate >

STATUS: Completed EST. TIME: 30m

Learning Activities Overview

Learning Activities *in this Course*

- HHC Early Recognition & Management of Sepsis ✔
- HHC Sepsis Worksheet ✔
- HHC Sepsis Pocket Card ✔
- HHC Sepsis Scenario Quiz ✔

# Sepsis electronic optimizations

**Epic**

**Sepsis clinical view report**

**Sepsis guideline and data report**

**Sepsis order sets**

**Emergency department BPA**

Order and Order Set Search

SEPSIS

Order Sets, Panels, & Pathways

Name	User Version Name	Type
GEN - Cellulitis/Abscess - Focused		Order Set
GEN - Hospital Acquired Pneumonia - Focused		Order Set
GEN - Urinary Tract Infection With Sepsis - Admit		Order Set
ICU - Pneumonia - Admit		Order Set
MED - Cellulitis / Abscess - Admit (No Pending Surgery)		Order Set
MED - Community Acquired Pneumonia - Admit		Order Set
MED - Community Acquired Pneumonia - Focused		Order Set
ED Sepsis Order Set		Order Set
GEN - Adult Sepsis Quick Set - Focused		Order Set
ICU - Adult Sepsis - Focused		Order Set
MED - Adult Sepsis / SIRS not in Unit - Admit		Order Set

Medications

Name
Ascorbic Acid (Vitamin C) Panel for Sepsis
Lactated Ringers 30 mL/kg bolus for "SEPSIS" (ADULT) (aka sepsis)
Normal Saline 0.9% 30 mL/kg bolus for "SEPSIS" (ADULT) (aka sepsis)

Procedures (No results found)

BestPractice Advisory - Sepsis, Screenshot

**Important (1)**

**This Patient is identified as High Risk for Sepsis**

**Predictive Model Details**

Factor	Value
3.3 Early Detection of Sepsis Model	
49% SIRS temperature criterion	met
44% Age	121
3% Creatinine	normal (3.40)

**SIRS Criteria**

WBC: 2.3 (02/18 1332)  
Temp: (I) 102.7 F (38.9 C)  
Resp: (I) 26  
Pulse: (I) 120

**Organ Dysfunction**

BP: (I) 76/43 MAP: (I) 54  
CREAT: 3.40 (02/18 1332)  
BILIRUBIN: 4.0 (02/18 1415)  
Platelet: 80,000 (02/18 1332)  
Lactic Acid: 4 (02/18 1415)

Active Orders

Respiratory Care

Non-Invasive Ventilation - BIPAP

Order Do Not Order

Acknowledge Reason

Alert me again in 15 minutes if sepsis is suspected

I am not the attending physician

BH CCU

Time:	0600	0615	0700	0715	0730	0745	0800	04/19 0701 0601
BP (cutf)	04/58		105/56	82/56	85/51	115/61	100/67	
MAP (NIBP)	67		69	64	65	62	61	
MAP (Calc)	67		72	65	62	79	81	
Volume (mL) ( sodium chloride 0.9%)	0mL		0mL				0mL	100
Volume (mL) (dextrose 5% (DSW...))	900mL		75mL				75mL	
Dose (mcg/min) Norepinephrine	6 mcg/min		6 mcg/min		8 mcg/min		8 mcg/min	
Dose (mcg/min) Meropenem IV (g)								0.5
SpO2	93	88	97	96	96	95	95	
O2 Device				room air (none)	room air (none)	room air (none)	room air (none)	

Sepsis Data

Vitals:

Component	Value	Date/Time
BP	(I) 176/109	08/07/2023 1336
MAP	132/82	08/07/2023 1547
MAP (Calculated)	131 mm Hg	99 mm Hg
Pulse	95	86
Resp	18	18
Temp	98.5 F (36.9 C)	98.2 F (36.8 C)
SpO2	98%	98%
O2 Device	room air (none)	room air (none)

**Blood Cultures Last 24 hours**

No orders found for this visit on 08/07/23 (from the past 24 hour(s)).

SIRS Criteria last 8 hours

Component	Value	Date/Time
White Blood Cell Count	14.8 (H)	08/07/2023 1351

Organ Dysfunction Criteria last 8 hrs

Component	Value	Date/Time
Creatinine	0.9	08/07/2023 1351
Platelet Count	325	08/07/2023 1351
Bilirubin, Total	0.2	08/07/2023 1351

Fluid Administered in Last 8 Hours

No Fluid Infusions administered within the last 8 hours

Last Antimicrobial Administered within Last 24 Hours

ceftriaxone (ROCEPHAN) IV Push "ED ONLY" 1 g  
Given 1 g at 1544  
Frequency: Once

Vasopressors Administered in the last 8 hours

No vasopressor administrations found within the last 24 hours.

Sepsis Guidelines

**CMS Definitions:**

**Severe Sepsis:** Suspected or actual infection + 2 SIRS + one new acute organ dysfunction

**Septic Shock:** Infection + 2 SIRS + one new acute organ dysfunction AND persistent hypotension after target fluid resuscitation has been completed OR Lactate of 4 or higher.

**SIRS Criteria:** 2 or more within 6 hrs of each other

- \* Temp >100.9 or <96.8
- \* HR >90
- \* RR >20
- \* WBC >12.0 or <4.0

**Organ Dysfunction:** Any one that is not chronic for the patient

- \* SBP <90, or MAP <65, or a SBP decrease of more than 40 pts
- \* Mechanical ventilation (Endotracheal, Tracheostomy, BiPAP or CPAP)
- \* Creat >2.0, or u/c <0.5 mL/kg/hour for 2 hours
- \* Bilirubin >2.0 mg/dL
- \* Platelet <100,000
- \* INR >1.5 or aPTT >60 sec
- \* Lactate >2.0 mmol/L

**Treatment Guidelines for Severe Sepsis or Septic Shock:**

**Interventions within 3 hours**

- \* Initial Lactate Level and REPEAT within 4 hours if initial result >2.0
- \* Blood Culture collection (if not completed within last 24 hours)
- \* Antibiotics, broad spectrum IV
- \* Fluid resuscitation with NS or LR @ 30mL/kg for (2) SBP<90, MAP<65 or SPP increase of more than 40pts

OR

Lactate Level <=4.0 mmol/L

Only crystalloid fluids given at a rate **greater than** 125 mL/hr can be used towards the target volume of 30mL/kg

**Interventions within 6 hours**

- \* Ensure Repeat Lactate Level has been collected
- \* Focused Exam Completed. Documented by provider **after fluid resuscitation**
- \* Vasopressor administration initiated in (2) SBP<90 within the 1 hour after completion of 30mL/kg volume

# Sepsis worksheet

## Sepsis Worksheet

<p>SIRS + Infection → SEPSIS + Acute Organ Dysfunction → SEVERE SEPSIS + Hypoperfusion → SEPTIC SHOCK</p>			
SIRS	Sepsis	Severe Sepsis	Septic Shock
<p><b>(Systemic Inflammatory Response Syndrome)</b> Any <b>TWO</b> of the following:</p>	<p><b>POSSIBLE Source of Infection</b> Previous criteria met plus any <b>ONE</b> of the following:</p>	<p><b>Acute (new) organ dysfunction</b> Sepsis criteria met plus any <b>ONE</b> of the following:</p>	<p><b>Shock- Organ Failure</b> Severe Sepsis criteria met plus any <b>ONE</b> of the following:</p>
<p><input type="checkbox"/> Temp &gt;100.9°F or &lt;96.8°F  <input type="checkbox"/> HR &gt; 90 beats per minute  <input type="checkbox"/> Respirations &gt; 20/min  <input type="checkbox"/> WBC &gt; 12,000 or &lt; 4000; or &gt; 10% Bands on differential</p>	<p><input type="checkbox"/> Pneumonia  <input type="checkbox"/> Urinary Tract Infection  <input type="checkbox"/> Skin Infection  <input type="checkbox"/> Abscess  <input type="checkbox"/> Joint Infection  <input type="checkbox"/> Organ Infection  <b>Documented positive Cultures:</b>  <input type="checkbox"/> Blood  <input type="checkbox"/> Urine  <input type="checkbox"/> Other _____</p>	<p><input type="checkbox"/> SBP &lt; 90, or MAP &lt; 65  <input type="checkbox"/> Creatinine &gt; 2.0  <input type="checkbox"/> UOP less than 0.5ml/kg/h for more than 2 hours despite adequate fluid challenge  <input type="checkbox"/> Platelets &lt; 100,000/mm<sup>3</sup>  <input type="checkbox"/> INR &gt; 1.5 or PTT &gt; 60 sec  <input type="checkbox"/> Bilirubin &gt; 2mg/dl  <input type="checkbox"/> Lactic Acid &gt; 2.0 (needs to be repeated per order)  <input type="checkbox"/> Acute Resp Failure requiring invasive mechanical Vent, CPAP, or BiPAP</p>	<p><input type="checkbox"/> 2 - SBP &lt; 90, MAP &lt;65 noted within the 1 hour after completion of target volume IVF (30ml/kg of LR or NS).  <input type="checkbox"/> Lactate 4.0 or greater</p>
<p><b>Notify Provider that the patient meets SIRS criteria</b>  <b>Orders:</b> -Blood Cultures                  -Lactic Acid</p>	<p><b>Notify Provider of symptoms and possible Sepsis criteria</b>  <b>Orders:</b> -Blood Cultures                  -Lactic Acid                  -IV Antibiotic</p>	<p><b>Notify Provider of symptoms and possible Severe Sepsis criteria</b>  <b>Orders: -Repeat Lactic Acid w/in 6 hr:</b>                  ED: Q2H IP: Q4H                  -NS or LR @ 30ml/kg;                  If (2) SBP &lt; 90 or MAP &lt;65                  Infusion rates must be greater than 125ml/hr.                  *Monitor VS during and within 1 hr after completion- at least 2 BPs*                  *ED SBAR/Handoff: .eastSBARsepsis</p>	<p><b>Notify Provider of symptoms and possible Septic Shock criteria</b>                  *Monitor patient closely &amp; document VS frequently  <b>Orders:</b> -NS or LR @ 30ml/kg                  Target volume given w/in 3hr                  -Vasopressor if 2 consecutive SBP &lt;90 or MAP &lt;65 w/in 1 hr after IVF.                  **Focused Exam documented by Provider after 30ml/kg fluids infused                  • or use dot phrase .sepsisreeval</p>

11/11/2022

# Sepsis mousepad

## SEPSIS WORKSHEET

SIRS + Infection → SEPSIS + Acute Organ Dysfunction → SEVERE SEPSIS + Hypoperfusion → SEPTIC SHOCK

SIRS	Sepsis	Severe Sepsis	Septic Shock
<p>(Systemic Inflammatory Response Syndrome) Any TWO of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Temp &gt;100.9°F or &lt;96.8°F</li> <li><input type="checkbox"/> HR &gt; 90 beats per minute</li> <li><input type="checkbox"/> Respirations &gt; 20/min</li> <li><input type="checkbox"/> WBC &gt; 12,000 or &lt; 4000; or &gt; 10% Bands on differential</li> </ul>	<p>POSSIBLE Source of Infection Previous criteria met plus any ONE of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Pneumonia</li> <li><input type="checkbox"/> Urinary Tract Infection</li> <li><input type="checkbox"/> Skin Infection</li> <li><input type="checkbox"/> Abscess</li> <li><input type="checkbox"/> Joint Infection</li> <li><input type="checkbox"/> Organ Infection</li> <li><b>Documented positive Cultures:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Blood</li> <li><input type="checkbox"/> Urine</li> <li><input type="checkbox"/> Other _____</li> </ul> </li> </ul>	<p>Acute (new) organ dysfunction Sepsis criteria met plus any ONE of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> SBP &lt; 90, or MAP &lt; 65</li> <li><input type="checkbox"/> Creatinine &gt; 2.0</li> <li><input type="checkbox"/> QUOP less than 0.5ml/kg/h for more than 2 hours despite adequate fluid challenge</li> <li><input type="checkbox"/> Platelets &lt; 100,000/mm3</li> <li><input type="checkbox"/> INR &gt; 1.5 or PTT &gt; 60 sec</li> <li><input type="checkbox"/> Bilirubin &gt; 2mg/dl</li> <li><input type="checkbox"/> Lactic Acid &gt; 2.0 (needs to be repeated per order)</li> <li><input type="checkbox"/> Acute Resp Failure requiring invasive mechanical Vent, CPAP, or BIPAP</li> </ul>	<p>Shock- Organ Failure Severe Sepsis criteria met plus any ONE of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 2 - SBP &lt; 90, MAP &lt;65 noted <u>within the 1 hour after</u> completion of target volume IVF (30ml/kg of LR or NS).</li> <li><input type="checkbox"/> Lactate 4.0 or greater</li> </ul>

### MANAGEMENT

(SEPSIS 3-HOUR and 6-HOUR BUNDLES)

**Complete w/in 3 Hours**

**C:** Blood cultures x 2 (*prior to antibiotics*)


**A:** Antibiotics (IV) w/in 30 min of order

**L:** Lactic acid + repeat(s) ≥ 2.1

- 2.0 and lower = provider discretion

**F:** Fluids: NS/LR 30ml/kg **if** lactic acid ≥4.0 or SBP <90/MAP <65 (x2)

- *Frequent* vitals during & post fluids



**Complete w/in 6 Hours**

Repeat lactic acid ≥ 2.1

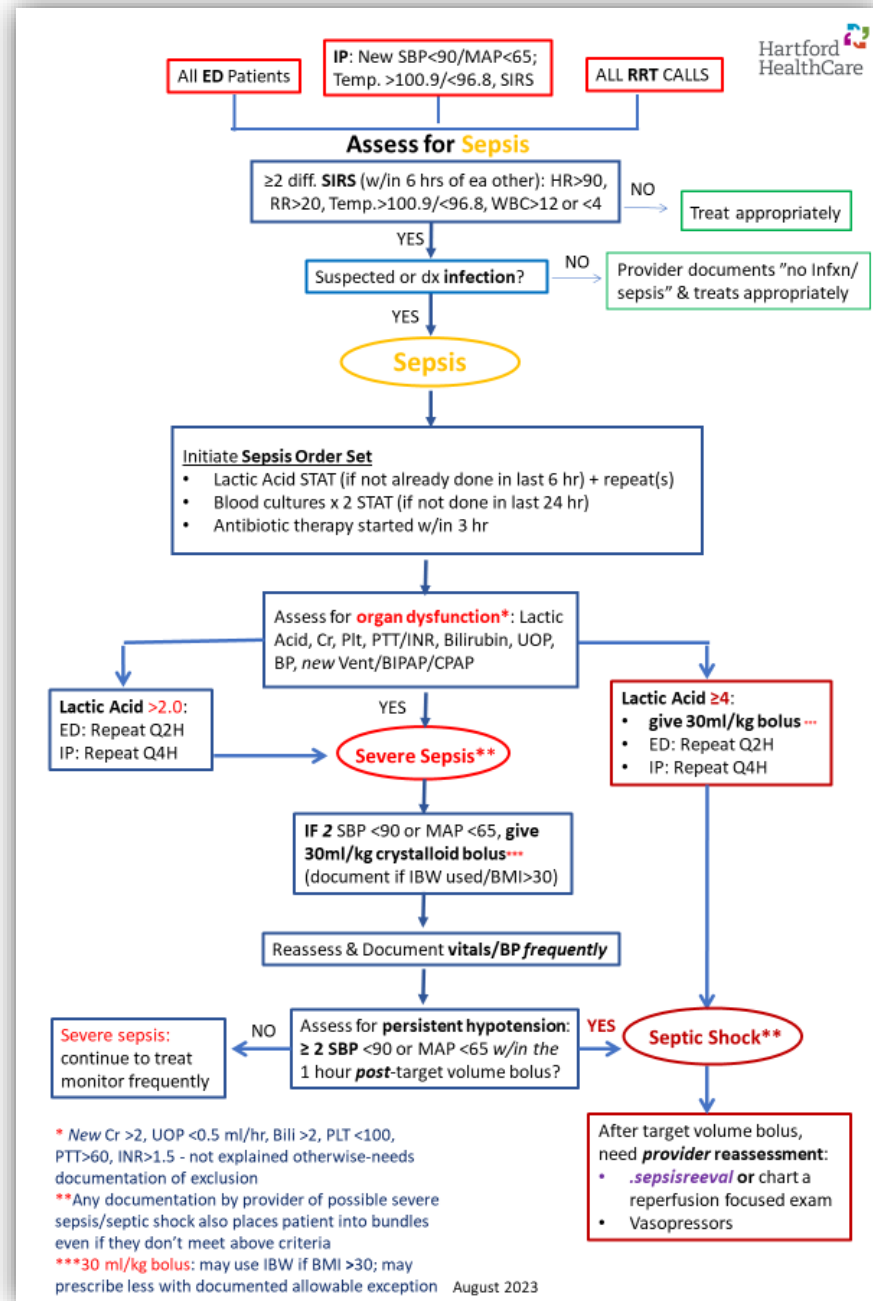
- ED: 2 hr; IP: 4 hr

Vasopressors if 2x SBP <90/MAP <65 **after** fluids (need ≥2 BPs w/in 1st hour fluids complete)

Provider sepsis re-eval completed and documented

- Focused assessment or *.sepsisreeval*

# Sepsis workflow



# Sepsis handoff tool

## Quality improvement project

### Checklist & Handoff for Septic Patients

Does not get scanned into the chart.

Epic SBAR for Septic Patients  
eastSBARsepsis

RN/Unit/Date \_\_\_\_\_  
RN/Unit/Date \_\_\_\_\_

Patient Label

SEPSIS CARE CHECKLIST	YES ✓	NO ✓	N/A ✓
SEPSIS: 2 SIRs + Suspected Infection?			
<b>3-HOUR BUNDLE</b>			
2 Blood Cultures Drawn (before antibiotics)?			
Initial Lactic Acid Drawn?			
IV Broad Spectrum Antibiotics Given?			
Target Volume* Fluids Given (Initial Hypotension** or Lactic Acid $\geq 4.0$ ) (Last bag of target volume needs to be started w/in 3 hr)	Bag#1 _____ ml Bag#2 _____ ml Bag#3 _____ ml Bag#4 _____ ml		
<b>6-HOUR BUNDLE</b>			
Repeat Lactic Acid Drawn? (Initial 2.1 or greater or per provider order) Repeat in 2 hr ED and 4 hr IP			
$\geq 2$ BPs Post-Fluids (Target Volume)? Document frequent vitals during and post-fluids to assess for persistent hypotension.			
Provider Notified (and Documented) of Target Volume Completion? Provider must now perform and document a Tissue Perfusion/Sepsis Re-evaluation			
Vasopressor Started? (If persistent hypotension*** after fluid resuscitation)			

If 'yes' or diagnosed "Severe Sepsis" or "Septic Shock", then proceed with checklist

Fluids: Lactic Acid  $\geq 4.0$  or Initial Hypotension\*\*?  
YES = Patient needs fluids!  
\*30 ml/kg = Target Volume  
• Provider can use ideal body weight (IBW) if BMI  $>30$  (need height documented) or can document an exception  
\*\*Initial hypotension = 2-SBP  $<90$  and/or MAP  $<65$

Lactic acid  $\geq 2.1$  = Severe Sepsis  
• Also see worksheet for other organ dysfunction  
Lactic Acid  $\geq 4.0$  or Persistent Hypotension\*\*\* = Septic Shock  
\*\*\*2-SBP  $<90$  or MAP  $<65$   
AFTER Target Volume = Persistent Hypotension

Hartford HealthCare  
Confidential and Proprietary Information

Please return sheets after handoff to Quality & Safety: 1. Interoffice mail or 2. Fax 860-892-2737

Current (revised) version

**Hartford HealthCare Connect to Healthier East Region**

**SEPSIS ALERT / HANDOFF TOOL**

NOT Part of the Permanent Medical Record

Enter Patient's Initials

[ ] ADEQUATE IV ACCESS (2 peripheral lines OR central line access preferred)

[ ] BLOOD CULTURES - Collected within 3hrs of presentation time.  
Must be drawn and documented before initial antibiotic is administered. **Time completed within last 24hrs - YES/NO**

[ ] ANTIBIOTIC Name \_\_\_\_\_ Given Date/Time \_\_\_\_\_  
Initial Abx should be started within 3hrs of presentation time. Always give monotherapy abx (i.e. Rocephin, Levaquin, Zosyn, Unasyn, Cefepime) first **BEFORE** longer infusing antibiotics (e.g., Vanco).

[ ] LACTIC ACID drawn at: Date/Time \_\_\_\_\_ and documented within 3hrs of presentation time.

[ ] REPEAT LACTIC ACID if ANY lactic is  $\geq 2.1$  - ordered & drawn within: Q2hr (ED) or Q4hr (IP) per provider order.  
1st positive Lactic value: \_\_\_\_\_ Repeat drawn at Date/Time: \_\_\_\_\_ Repeat canceled

[ ] PATIENT WEIGHT \_\_\_\_\_ (circle one) Actual or Stated HEIGHT \_\_\_\_\_ (for BMI/BW calculation)

[ ] CRYSTALLOID FLUIDS: LACTATE  $\geq 4.0$  OR SBP  $<90$  OR MAP  $<65$ , or dx Septic Shock  
Required volume of crystalloid fluids (Wt. in Kg x 30ml) = \_\_\_\_\_ ml

[ ] IV FLUIDS infused (NS or LR) at 30ml/kg \*\*rate must be greater than 125ml/hr to qualify

- Bag 1 time: start \_\_\_\_\_ end \_\_\_\_\_
- Bag 2 time: start \_\_\_\_\_ end \_\_\_\_\_
- Bag 3 time: start \_\_\_\_\_ end \_\_\_\_\_
- Amount of fluid administered at time of transfer \_\_\_\_\_

Notify provider when complete volume is infused and 2 sets of vital signs must be documented in the 60 minutes post infusion

[ ] ASSESSED FOR PERSISTENT HYPOTENSION ( $\geq 2$  - SBP  $<90$ /MAP  $<65$ ) within 1 hr after completion of 30ml/kg crystalloid fluids BP#1 \_\_\_\_\_ BP#2 \_\_\_\_\_ BP#3 \_\_\_\_\_

[ ] IF POSITIVE FOR PERSISTENT HYPOTENSION, START VASOPRESSORS Date/Time \_\_\_\_\_

[ ] PROVIDER FOCUSED EXAM DOCUMENTED Date/Time \_\_\_\_\_ (w/in 2 hr after last bag)

\*\*Sepsis Guidelines & Data is an Epic tool located in the sidebar report (IP) that can assist with identifying the above information in addition to providing clarity on the Sepsis Core Measure requirements (ED: hover over Sepsis column or icon on ED dashboard). \*\*NOT PART OF PATIENT'S PERMANENT EHR\*\*

SBAR documented prior to admission transfer: eastSBARsepsis

Prior version

# Where are we now?



# Thank you.

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**EQIC**

EASTERN US QUALITY  
IMPROVEMENT COLLABORATIVE

**Hartford**   
**HealthCare**

# *Convergence HQIC Sepsis Honor Roll*



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further, faster.



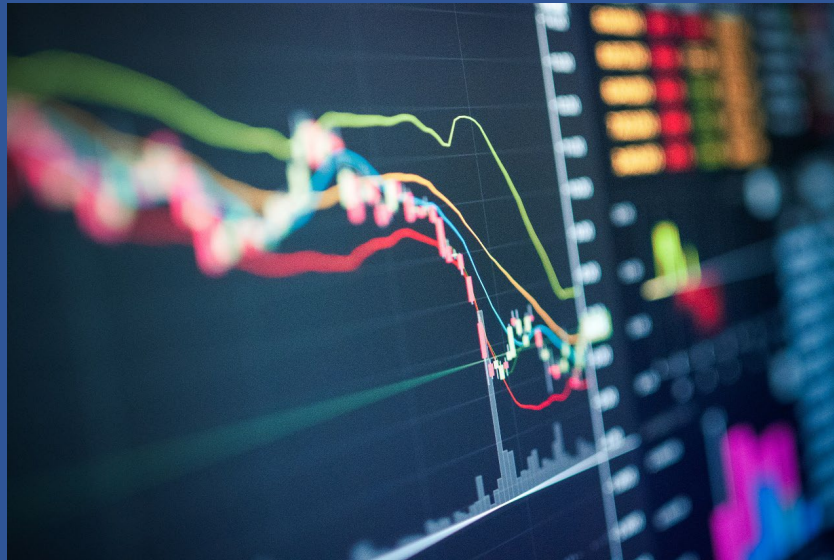
# The Problem



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# The Need



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# The Idea



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# The Implementation



# The WIIFM

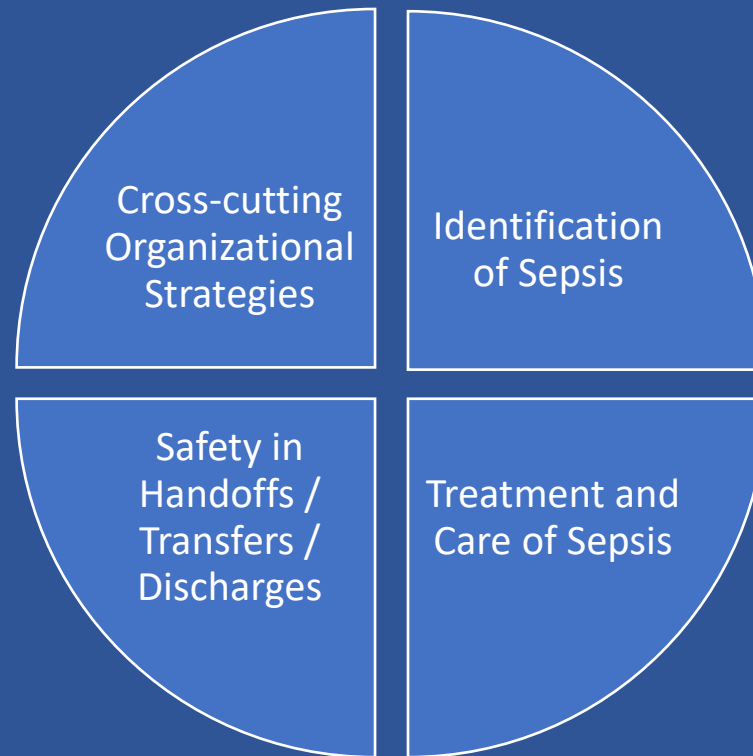
- Recognition at virtual event
- Media kit to be shared with Board, Hospital Leadership and Hospital Staff
- Inclusion in online community forum for ongoing collaboration
- Chance to share their stories at September 2023 Sepsis
- The ability to benchmark against other hospitals, and to easily identify new change ideas to test
- IMPROVED OUTCOMES FOR THE PATIENTS THEY SERVE



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# Hospital Self-Assessment: Four Domains





# Hospital Self-Assessment: Maturity Model



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# Hospital Self Assessment

## 2023 SEPSIS SAFE HOSPITAL ASSESSMENT

### BACKGROUND:

In the United States, sepsis is a leading cause of death in hospitals and affects over 1.7 million adults and claims nearly 270,000 lives annually. Sepsis deaths cost more than \$24 billion (about \$74 per person in the US) annually and most are likely preventable through better care, timely implementation of targeted interventions improves outcomes.

To address increasing sepsis rates across America and accelerate hospital progress to reduce sepsis related deaths, this spring we designate select hospitals as Sepsis Safe for the purpose of supporting continued quality improvement and recognizing those fighting sepsis mortality. Furthermore, to accelerate improvement and recognize high performance, Cynosure will publicly recognize hospitals. To measure sepsis safety, Cynosure Health collaboratively designed the 2023 Sepsis Safe Hospital Self-Assessment to measure sepsis across 4 domains.

### 4 Domains

1. Identification of Sepsis
2. Treatment and Care of Sepsis
3. Safety in Handoffs/Transfers/Discharges
4. Crosscutting Organizational Strategies

### INSTRUCTIONS:

For each measure, please read through the measure description then select the level that best describes your hospital's work that the levels are built on each other, meaning a hospital must have implemented Levels 1 and 2 to achieve Level 3. Cynosure each hospital convene a multi-stakeholder team to complete the 2023 Sepsis Safe Hospital Self-Assessment to ensure accurate results and reduce variability in results year over year, Cynosure Health recommends hospitals follow a similar process each year.

*Time permitting, please share any quality improvement activities you are using for sepsis. Do you have a bright spot you can share? Like to have more information about? Cynosure is committed to providing resources to support continued progress to all hospitals in the Hospital Program.*

**Submit responses and any supporting documents via e-survey at: [2023 Safe Sepsis Hospital Self-Assessment](#)**  
**Assessment Period: January - March 2023**

Questions? Contact Helen Plass, Project Manager, via email at [hplass@cynosurehealth.org](mailto:hplass@cynosurehealth.org)

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## 2023 SEPSIS SAFE HOSPITAL ASSESSMENT

### IDENTIFICATION OF SEPSIS

Measure	Level 0 (0pts)	Level 1 (1pt)	Level 2 (2pts) Safer	Level 3 (3pts) Safest	Score
Screening tool has been adopted and implemented in both the ED and inpatient adult units and is performed at assigned times (i.e., change of shift)					
				Screening compliance is reliable, and sepsis is identified as evidenced by initiation of treatment	
				*Extra Credit (2pts) Patients and Families understand the signs and symptoms of sepsis	

## 2023 SEPSIS SAFE HOSPITAL ASSESSMENT

### CROSS CUTTING ORGANIZATIONAL STRATEGIES

Measure	Level 0 (0pts)	Level 1 (1pt) Safe	Level 2 (2pts) Safer	Level 3 (3pts) Safest	Score
<b>Organizational Infrastructure</b>	Sepsis is not yet a strategic organizational goal	Sepsis is a priority as described in organizational strategic goals	Sepsis lead/coordinator is identified and working with all disciplines	Sepsis committee meets regularly & shares both bundle compliance and mortality data  Physicians lead is identified	
<b>Provider/ Staff Engagement</b>	Education is not provided on a specific schedule	Education provided to bedside staff as needed	New hires, registry and mid-level providers and physicians receive sepsis specific training upon hire	Sepsis Specific education is ongoing and at regular intervals for all levels of care providers	
<b>Patient &amp; Family Engagement</b>	Patients and families are not available for updates	Patients and families are provided ongoing updates regarding sepsis treatment	Patients and families are given an opportunity to co-create patient and family communication content and strategies for patients with sepsis	Patient Family Advisor is on the sepsis committee and actively contributes to improved processes for Sepsis communication and strategies	
<b>Community Connection</b>	A community connection has not yet been accomplished	Prehospital Sepsis awareness Outreach to clinic providers / EMS systems are in place	Post hospitalization SNF (Skilled Nursing Facility) outreach to enhance sepsis identification are in place	Community Sepsis Awareness outreach to community groups to enhance sepsis awareness are in place	

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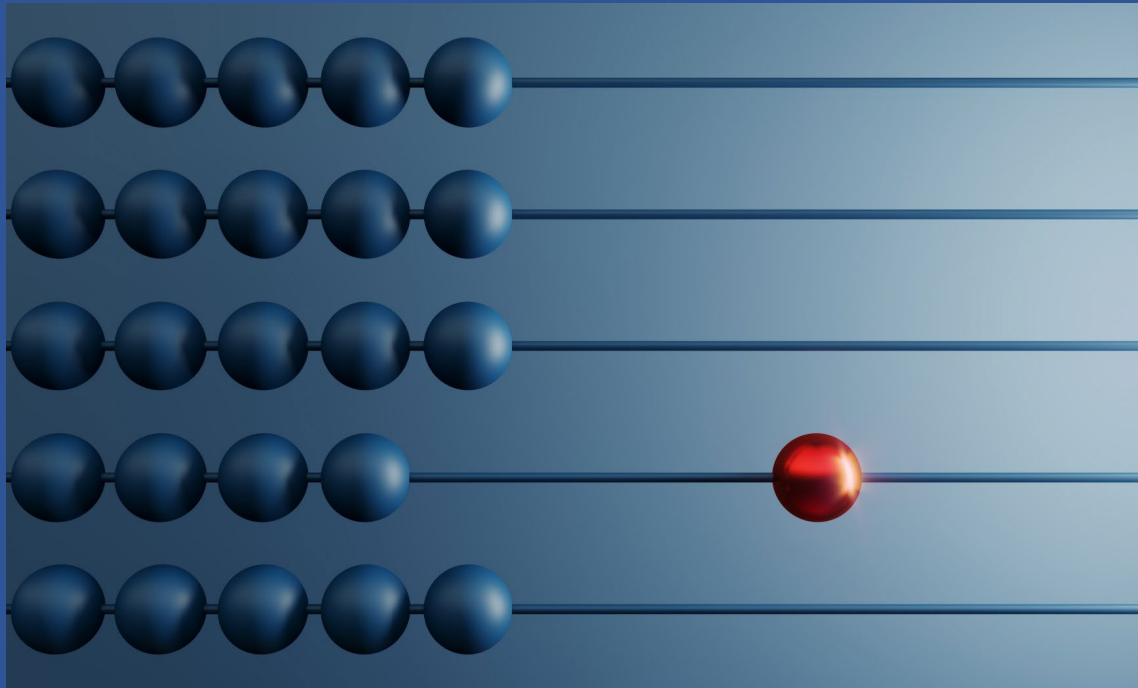
# Hospital Self-Assessment: The Results

## Four Tiers of Recognition:

1. Foundational (4%)
2. Commendable (65%)
3. Exceptional (26%)
4. Superior (4%)



# What Did We Learn?



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**46%** report ongoing compliance with sepsis bundle within 3 hours.

**42%** of our hospitals report having a standardized, reliable screening tool that is used in the ED and inpatient areas.

**48%** report ongoing compliance with Hour 1 bundle.

**90%** report the use of an automated alert in the medical record, however **42%** have automated that further to include automatic notification to medical emergency or sepsis team.

## What Did We Learn?



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Participating hospitals with *the lowest scores* in the self-assessment also reported that sepsis is *not yet an organizational strategic goal*.

## What Did We Learn?



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Plan to have highest performing hospital teams share best practices and advice for others during Sepsis Awareness Week to educate and encourage other hospitals to continue their sepsis improvement journeys.

## What's Next?



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# Thank You!

Kim Werkmeister

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## Discussion

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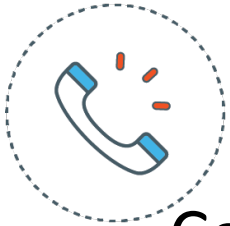
- What impactful actions can you take as a result of the information shared today?
- How are you able to increase engagement within your facilities to ensure a true change in patient safety?
- Based on what you heard today, what activities do you currently have underway that can leverage immediate action over the next 30, 60 or 90 days?

# Final Thoughts

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# Join Us for the Next Community of Practice Call!

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Join us for the next  
Community of Practice Call on October 12, 2023  
from 1:00 – 2:00 p.m. ET

We invite you to register at the following link:

[https://zoom.us/webinar/register/WN\\_ASI\\_I3p\\_TEyX\\_VY\\_YYFFeA](https://zoom.us/webinar/register/WN_ASI_I3p_TEyX_VY_YYFFeA)

*You will receive a confirmation email with login details.*

Thank You!

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*Your opinion is valuable to us. Please take 4 minutes to complete the [post assessment](#).*

*We will use the information you provide to improve future events.*