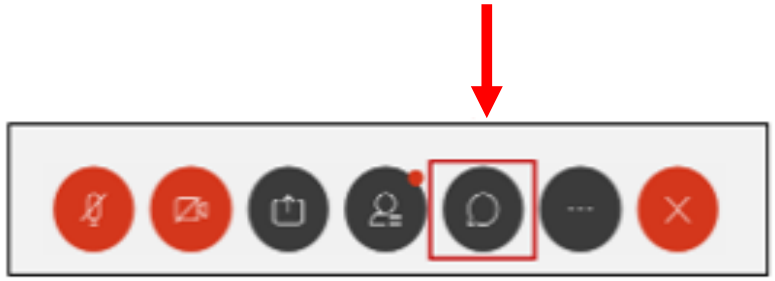
How to Use the Chat Box Feature

To send a Chat message:

- **Open** the **Chat** Panel



- ***Scroll*** *all the way* ***down***
- ***Select "Everyone"***
  - ***Do not*** *select* ***"All Attendees"***
- **Type message** in Chat Text Box, press **Enter** on your keyboard

Enter in Chat:

- **Name**
- **Role**
- **Organization**
- **State**

IPRO HQIC
Sepsis: Lessons Learned
Part One

A Two-Part Series:

September 19, 2023

October 17, 2023

2-3 p.m. EST

This material was prepared by the IPRO HQIC, a Hospital Quality Improvement Contractor, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. Publication # IPRO-HQIC-Tsk56-23-362

IPRO HQIC

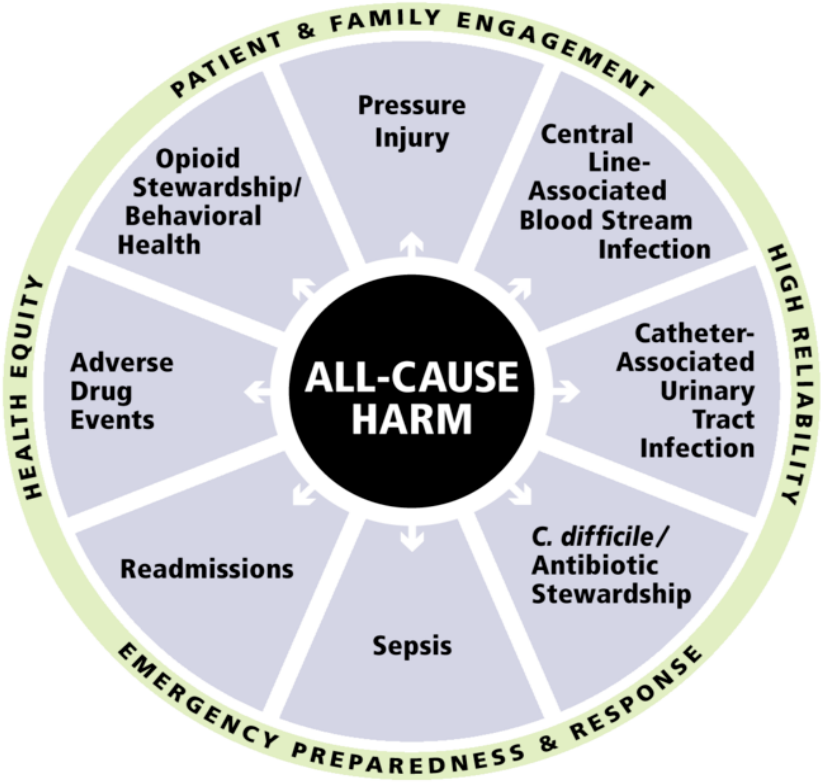
What are HQICs?

Data-driven. It's the data that help hospitals measure progress toward quality improvement (QI) gains. Hundreds of thousands of patients and families benefit from CMS-supported QI projects that make today's hospital stays safer and improve the quality of hospital care.

Dynamic and collaborative. HQICs partner with small, rural and critical access hospitals and facilities that care for vulnerable and underserved patients. Their quality improvement consulting and expertise – offered at no cost to the hospitals – help hospital leaders and clinical teams develop local QI projects designed to:

- Reduce opioid misuse and adverse drug events.
- Increase patient safety with a focus on preventing hospital-acquired infections.
- Refine care coordination processes to reduce unplanned admissions.

HQICs also share their QI resources to assist hospitals with pandemic responses and emergency preparedness.



The federally funded Medicare Hospital Quality Improvement Contractor (HQIC) in 12 states

IPRO (joined by)

- Healthcentric Advisors
- Kentucky Hospital Association
- Qlarant
- Q3 Health Innovation Partners
- Superior Health Quality Alliance
- American Institutes for Research (AIR)
- QSource

States

- MA
- NE
- NY
- OH
- KY
- NJ
- PA
- DE
- MD
- MI
- MN
- WI

Sepsis Treatment Should Begin IMMEDIATELY

Sepsis – Costs of NOT Coordinating Hospital-wide Care

Increasing incidence

Over 1 million annual admissions for severe sepsis[1]

Significant cost burden

Annual acute care costs for sepsis exceeds $24 billion[2]

Risk of mortality

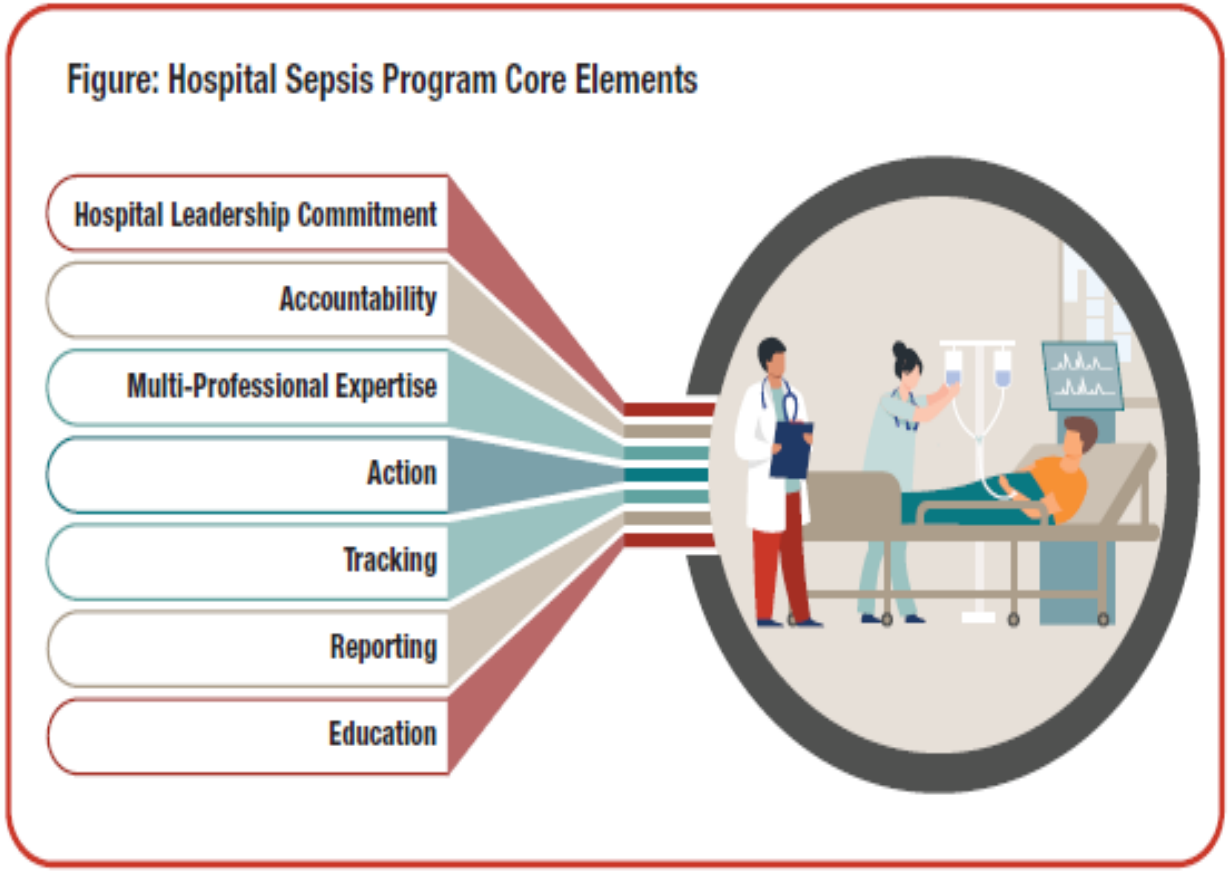
40 – 60% mortality rate for severe sepsis and septic shock[3]

Risk of readmission

Nearly one half are readmitted within six months[2]

Premier 2019

2023 CDC Hospital Sepsis Program Core Elements

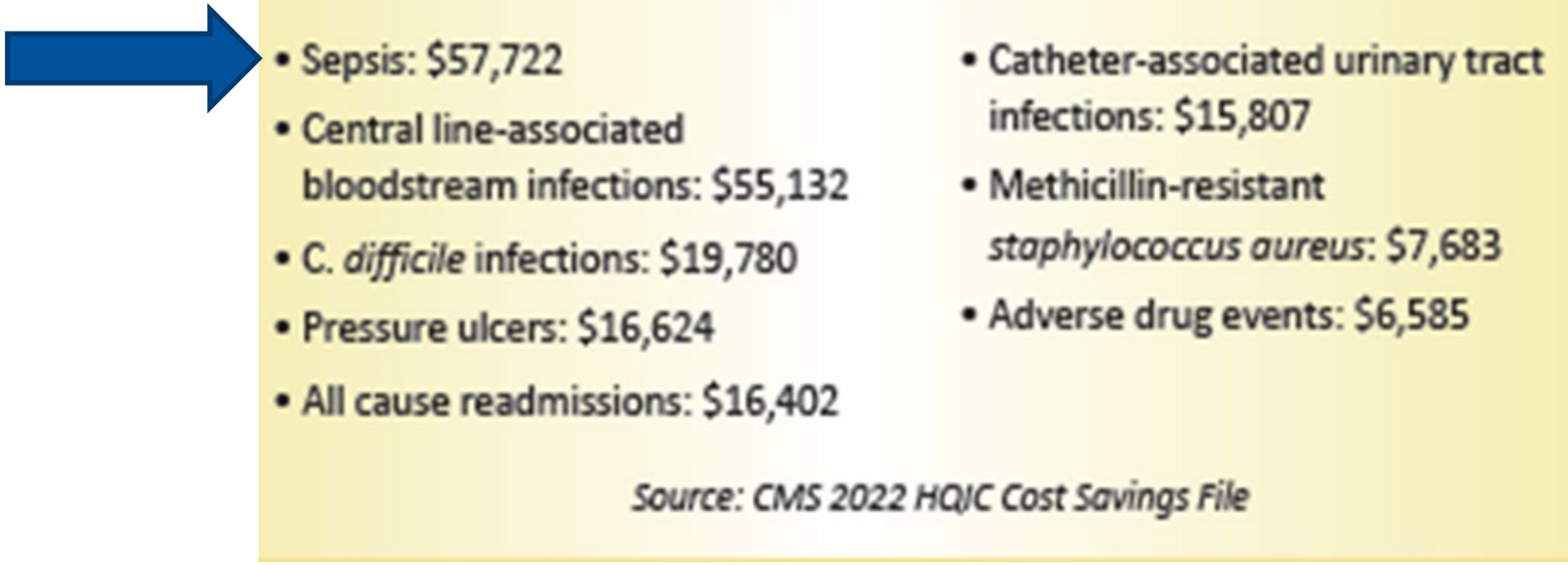


Who is the Hospital Sepsis Program Core Elements guidance for?

Clinicians, hospitals, and health systems leading efforts to improve the hospital management and outcomes of sepsis.

Effective leadership is required to engage the multidisciplinary expertise required to support the care of patients with sepsis, as detailed later in this document.

Sepsis Care Improvements = Savings



IPRO HQIC Gap Assessment Opportunities for Improvement

IPRO
HQIC
Healthcentric Advisors
Qlarant
Kentucky Hospital Association
Q3 Health Innovation Partners
Superior Health Quality Alliance
HQIC
Hospital Quality Improvement Contractors
CENTERS FOR MEDICARE & MEDICAID SERVICES
iQUALITY IMPROVEMENT & INNOVATION GROUP

Standards for Hospital Sepsis Care		% Not Fully Implemented IPRO HQIC Gap Assessment
Consistently use a “time zero” method for tracking the timing of interventions	√	63%
Rapid Response Team (RRT) or sepsis alert process is in place for new sepsis identification	√	72%
Process in place to document interval from time of positive sepsis screening to time of antibiotic administration	√	72%
Utilization of real-time method for tracking sepsis patients	√	78%
Process in place to monitor and identify concerns and barriers to bundle implementation	√	62%
Designated Sepsis Lead/Coordinator regularly rounds in clinical areas	√	84%
Data are stratified to identify disparities to facilitate improvements in health equity		91%
Explicit sepsis communication handoffs are utilized between health care staff for diagnosis and treatment plan	√	82%
Sepsis data are shared with patients/families		81%
Mandatory annual training on sepsis early recognition for providers		75%
Initial and ongoing sepsis education for providers		65%
Patient and family education process defined and tools developed to assist with implementation		78%

Today's Speakers

Baptist Health Louisville

Today's Speakers

Karan Shah, MD

Baptist Health Louisville, Vice President of Physician Integration

- Karan Samir Shah, MD, MMHC, is system physician advisor for Baptist Health and Vice President for Physician Integration. A member of the hospital's executive leadership team, he provides leadership to case management, directs strategic projects, collaborates with the Chief Medical Officer and quality department to improve overall care. As a system leader, he works closely with leaders of case management, denials management, revenue cycle, and managed care organizations to develop a successful internal utilization management program, which helps decrease denials for all 9 hospitals.
- Dr. Shah graduated with a Bachelor of Science in biology and a Bachelor of Arts in religious studies from Bucknell. He earned a medical degree from Wake Forest University School of Medicine and completed an emergency medicine residency at Vanderbilt University Medical Center. He obtained a Master of Management in healthcare from Vanderbilt University Owen School of Management. At Vanderbilt University, he completed a hospital and clinics administrative fellowship at the medical center. Dr. Shah is currently a candidate for a Master of Science in health informatics from University of South Florida Morsani College of Medicine and will receive his degree in December 2024.

Today's Speakers (continued)

Stacey Monarch BSN, RN, CPHQ

Sepsis Coordinator, Baptist Health Louisville

Facilitated organizational TJC sepsis certification

Critical care nurse

Firsthand experience with the devastating effects of sepsis

BAPTIST HEALTH®

Sepsis Opportunities in the Emergency Department (ED)

Stacey Monarch, RN, BSN, CPHQ

Sepsis Coordinator, Baptist Health Louisville

Karan Shah MD, MMHC, FACEP

VP, Physician Integration

BAPTIST HEALTH®

Baptist Health Louisville

- Louisville, KY
- 519 licensed beds
- 44 ED beds
- 150-200 severe sepsis/septic shock patients per month

How to Improve Sepsis Care in the ED?

- Gap Analysis
- Set Goals
  - Decrease door-to-antibiotics time
  - Improve sepsis mortality
- Break down bundle into manageable pieces
  - Physician buy-in
  - Nursing buy-in
  - IT fixes
  - Process improvement

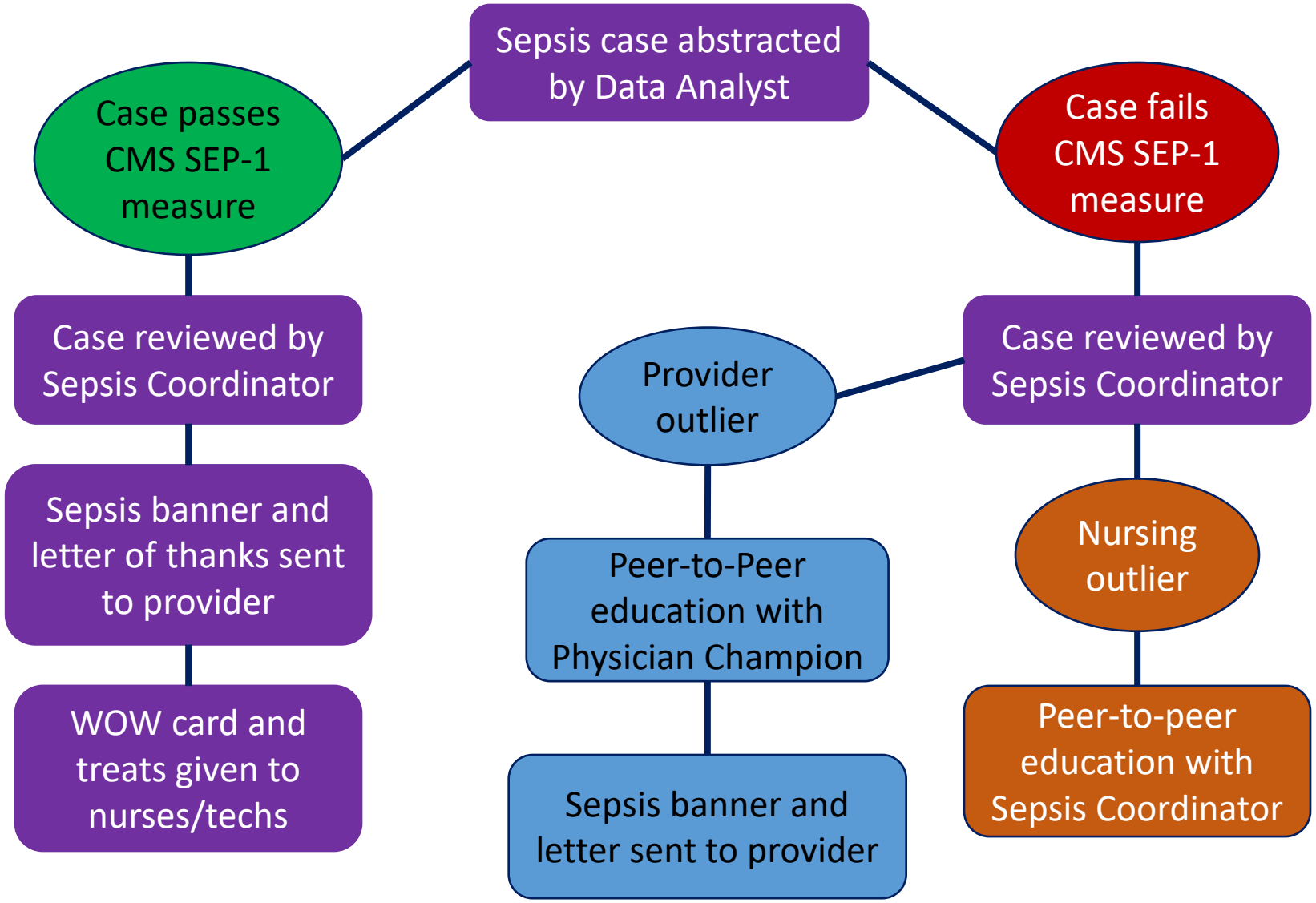
Clinical Time Zero

- Arrival time vs. triage time vs. sepsis recognition
  - Differences
  - How to choose?
- Why did we choose arrival time?
  - Consistent with other measures
  - Decrease confusion
  - Right thing for the patient

Communication with Frontline Staff

- Focus on processes, not people
- Negative feedback = opportunities for improvement
- Reward successes (5:1 feedback)
- Focused, real-time, peer-to-peer feedback
- Peer-to-peer reviews

Standardized Sepsis Case Review



Sepsis Banners

BAPTIST HEALTH LOUISVILLE

SEPSIS CASE REPORT

MRN/Arrival Date	Team S	Age/Sex	ED Physician	Admitting Physician	ED/Unit Nurses
[redacted]	No	40/M	[redacted]		

Severe Sepsis Presentation	Severe Sepsis Criteria
[redacted]	Pneumonia, HR: 130, RR: 37, Respiratory failure, on vent

Initial Lactate Level Collected (within 3hr of severe sepsis)	Blood Cultures Collected (within 3hr of SS and prior to abx)	Antibiotics Started (within 3hr of severe sepsis)	Repeat Lactate Level Collected (within 3hr of initial if initial > 2.0)
Yes	Yes	Yes	Yes

Arrival to Provider Assessment	Provider Assessment to First Order	First Order to Abx Start	Door to Abx Start
8 min	2 min	135 min	145 min

Septic Shock Presentation	Septic Shock Criteria
[redacted]	Severe sepsis and lactate: 5.3

Sepsis Fluid Bolus (30mL/kg) or Sepsis Fluid Exclusion ordered (within 3hr of septic shock)	Pt assessed for Persistent Hypotension (within 1hr of bolus stop)	Vasopressors Initiated (within 6hr of septic shock for persistent hypotension)	Focused Exam (completed within 6hr of septic shock)
Yes	Yes	NA	Yes

ED Departure Time/ Admitting Unit	Delay in Care	Infection Source/ Discharge Status	Sepsis Discharge Education on AVS
[redacted]	Emergent trach placement	Dx: Septic shock w/ acute respiratory failure d/t HCAP. Trach emergently placed on arrival to ED. Treated w/ meropenem, vancomycin and IBW 30mL/kg bolus in ED. Blood cultures +Enterobacter on 4/21. PEG tube replaced per gen sx. Discharged to ICF on 5/5.	NO

Reporting patient outcomes to admitting providers

Partnering with CIT

- Clinical IT representative on Sepsis Team
- EMR doesn't treat sepsis
- Feedback from Frontline
  - Fine-tune existing workflow

- CIT opportunities:
  - One-click ordering
  - Order sets
  - BPAs
  - Electronic Checklists
  - Reports
  - Analytics

Early Goals of Care Discussions

- Partner with Palliative Care Team
- Early goals of care discussions for patients presenting with poor prognosis
  - Out of hospital cardiac arrest
  - Likely to expire in the hospital or over the next 12 months
  - Readmissions: 3 or more admissions/ED visits in last 6 months
  - Functional decline and/or advanced dementia
  - Multiple comorbidities being admitted to critical care unit

Any Questions?

Focusing on Bundle Elements

Sepsis Screening

- To be completed:
  - Triage
  - Q shift (12 hours)
  - Sepsis Predictive Analytic Model prompts
  - With any acute decline in patient's condition
  - Discharge

Sepsis Screening	Complete at triage, Qshift, and when BPA prompts	
1. Does patient have **2 SIRS criteria**?	• Temp < 96.8 or > 100.9 • WBC < 4,000 or > 12,000	• HR > 90 • RR > 20
2. Does patient have known/suspected **infection**?	Cough/Sputum, Abdominal pain/Diarrhea, Line/Device Infection, Wound/Cellulitis, Dysuria, Headache w/ Stiff Neck	
3. Does patient have any signs of end **organ dysfunction**?	• SBP < 90 or MAP < 65 • Creatinine > 2.0 • UOP < 0.5mL/kg/hr • Total Bilirubin > 2.0 • Resp failure requiring mechanical ventilation	• Lactic Acid > 2.0 • PLT < 100,000 • INR > 1.5
If **YES to ALL**, screen is **POSITIVE** → Notify MD and start sepsis bundle		

Code Sepsis Criteria

- Adjust screening to meet the needs of population
- Empower nursing to advocate for septic patients
- Opening dialogue amongst treatment team
- Okay to be wrong!

Team S

MD ordered blood cultures? Call Team S.

Patient has Documented or Suspected Infection?

- Abdominal pain, distention, diarrhea
- Altered mental status
- Cough, sputum
- Wound infection or cellulitis
- Headache with stiff neck
- Line or Device infection
- Dysuria
- Order for blood cultures

AND Any TWO of the following:

- Temp < 96.8 or > 100.4
- HR > 110
- O2 Sat < 90%
- SBP < 100

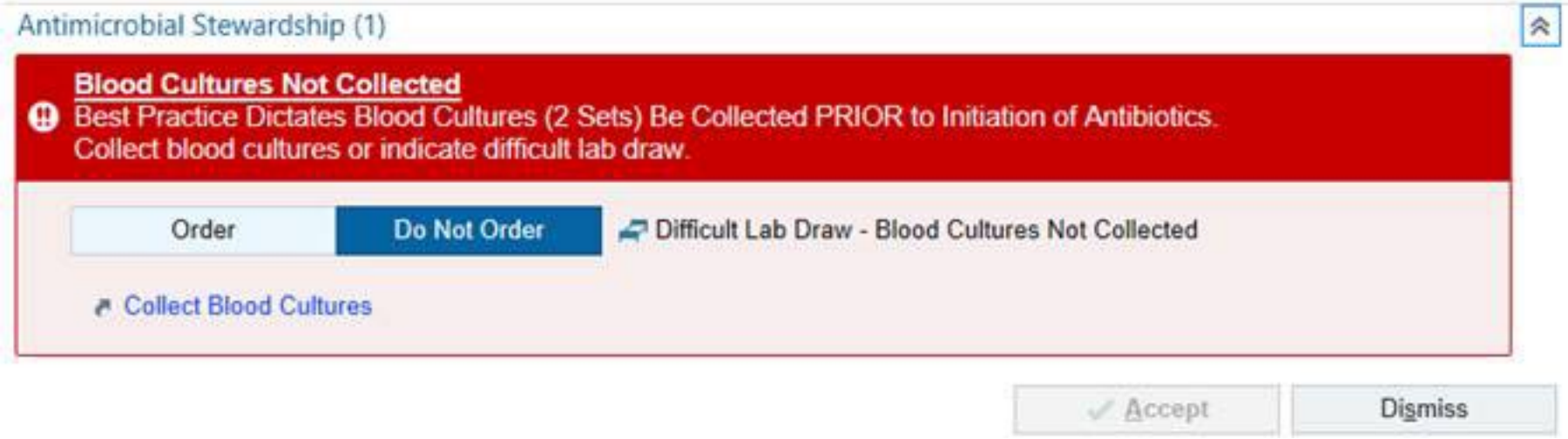
Call Team S and Notify MD immediately!

Blood Culture Bottleneck

- Nursing Education: team communication for missing orders/hard stick
- Provider Education: answering the why behind Team S
- Time consuming task
- Equipment immediately available
- Process to prioritize septic patient

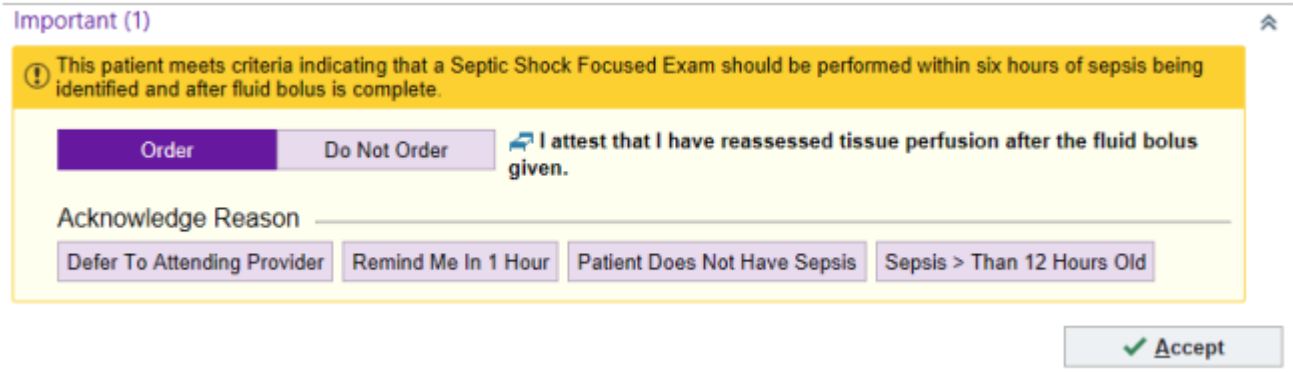
Blood Culture Collection vs. Documentation

- Collecting Blood Cultures → 2 separate tasks:
  - Collection of sample
  - Documentation of collection in EMR
- Nursing Education: team communication, proper documentation
- BPA creates a safety net



Focused Exam

- Education with ED providers
- SmartPhrase attestation
- Education with Intensivists – Focused Exam in H&P
- BPA reminder to enter SmartPhrase
- Attestation order embedded in BPA



BAPTIST HEALTH®

Safe Patient Handoff

Sepsis Checklist

Blood Cultures Not Ordered	Go To Sepsis Navigator
Lactate Not Ordered	Go To Sepsis Navigator
Lactate Not Resulted	
Repeat Lactate Not Ordered	Go To Sepsis Navigator
Fluid Resuscitation Not Ordered	Go To Sepsis Navigator
Fluid Resuscitation Not Administered	
Antibiotics Not Ordered	Go To Sepsis Navigator
Fluid Resuscitation Volume Not Documented	
Sepsis Diagnosis Entered by Provider	Go To Sepsis Navigator
Focused Exam Note Not Complete by Provider	Go To Sepsis Navigator

Patient Sticker

Sepsis Checklist

Emergency Department Downtime Form

Positive Sepsis Screen Date: _____ Time: _____ **Simple** **Severe**

Team S called @ _____ (if applicable) Circle one

Sepsis Bundle

- **Initial Lactic Acid** Collection Time:_____ Result: _____
- **Blood Cultures** (collect prior to starting antibiotics)

  Collection Time - Set 1: _____ Collection Time - Set 2: _____
- **Antibiotics administered STAT**

  Antibiotic start time – first antibiotic: _____

  Antibiotic start time – second antibiotic: _____ (if applicable)
- **Reflex Lactic Acid** (required if initial lactic acid > 2.0)

  -Reflex lactic acid due 3 hours after initial lactic acid collection time

  Reflex Lactic Acid Due: _____ Collection Time: _____
- **Fluid Bolus** (required for SBP < 90, MAP < 65, or lactic acid ≥ 4.0)

  Bolus Start: _____ Bolus Stop: _____ Volume: _____
- **Vasopressors** (indicated for persistent hypotension despite fluid bolus)

  Vasopressor Start: _____ Vasopressor Stop: _____

Checklist should be sent with patient to next unit if not complete and used for handoff communication. When checklist is complete, place in EMS breakroom. THIS IS NOT PART OF THE PERMANENT MEDICAL RECORD. All documentation must be entered into Epic once downtime has ended.

Updated Nov 2022

Any Questions?

Thank You for Attending Today's Event
Join Us For Lessons Learned: Part 2
October 17, 2023 2-3 p.m. EST

We value your input!

Please complete the brief survey after exiting event.

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