Improving Sepsis Bundle Compliance in a Rural Hospital Setting
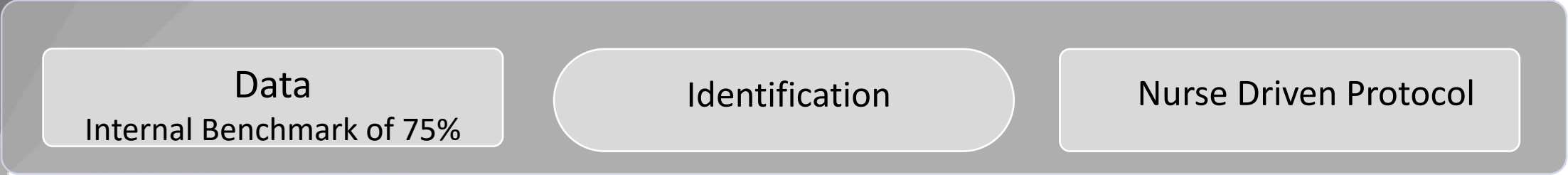
Ashley Kincade, RN, CIC, HACP-CMS
Executive Director of Quality, Infection Prevention,
and Regulatory Affairs

Where did we start?

![HMH Harrison Memorial Hospital - a regional medical center]

Data
Internal Benchmark of 75%

2023	Sepsis Bundle Compliance %
January	57%
February	67%
March	64%
April	67%
May	67%
June	75%
July	46%
Aug	79%
Sept	56%

Identification

ED triage includes Sepsis Screening for <u>ALL</u> patients (hard stop)

Pop-up box alerts the nurse of the following if the patient is considered a positive screen: "Patient meets criteria for Possible Severe Sepsis Risk – Alert responsible MD Immediately"

Nurse to initiate "CODE SEPSIS" after a positive screening

Nurse Driven Protocol

Nurse to initiate labs, IV, blood cultures, begin IV fluid bolus per IBW. Nurse to request antibiotic order from MD at bedside and initiate within 1 hour.

<u>BIG WINS:</u>
Nurse to initiate LR bolus per IBW

Placing a blue armband on patient once blood cultures are obtained

Start ED Nurse Triage

Sepsis Screening Assessment

(2 of the following)
- HR (>90)
- RR (>20)
- Temp (>100.0 or < 96.8)

PLUS
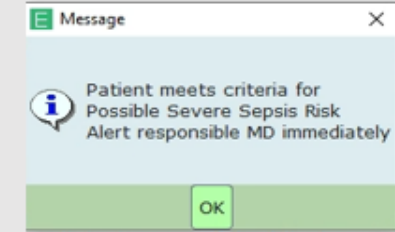
Suspected New or Documented Infection

Sepsis Infection Criteria Present
○ Suspected New Infection   ○ Documented Infection   ○ None
As evidenced by, but not limited to, any of the following examples:
*Diagnosis
* On Antibiotic Therapy
* Recent Invasive Procedure or Surgery
* Fever/Chills
* Cough/Shortness of Breath
* Central Line
* Abdominal Pain
* Purulent Wound Drainage
* Cellulitis

If Patient Screens Positive, INITIATE CODE SEPSIS

Message ✕
ⓘ Patient meets criteria for Possible Severe Sepsis Risk Alert responsible MD immediately

OK

Determine Severe Sepsis vs. Septic Shock – once remaining lab work is resulted

SEPSIS
- WBC >12,000 or <4,000
- HR (>90)
- RR (>20)
- Temp (>100.0 or < 96.8)

SEVERE SEPSIS
Sepsis PLUS 1 Organ Dysfunction below
- SBP< 90 or MAP <65
- Lactic acid > 2
- Acute Resp Failure with new need for mechanical ventilation (invasive/non-invasive)
- Creatinine > 2 or Urine Output <0.5ml/kg/hr
- Bilirubin> 2 mg/dL
- Platelets <100,000 or INR >1.5

SEPTIC SHOCK
Severe Sepsis PLUS
- Persistent hypotension after fluid bolus
  AND/OR
- Lactic acid ≥ 4

- Notify the MD
- Nurse to initiate *"Nursing Sepsis Protocol" Order Set*:
  - Insert Saline Lock IV
  - Place lab orders and obtain labs:
    - CBC Auto Diff
    - CMP
    - Lactic Acid
    - PT/INR, PTT
    - Blood Cultures: *Place blue armband on patient once they are obtained*
  - Begin IV Fluid bolus per Ideal Body Weight: 30mL/kg Lactated Ringers
  - Administer antibiotics **(per MD order)**

COMPLETE WITHIN 1 HOUR OF TRIGGER

****Once Fluid Bolus Initiated:
- Monitor & Document Blood Pressure:
  - Every 30 min while infusing *and* 2 hours after bolus completion.

If MD wants less than 30mL/kg IBW fluids, they must document why and the amount that was given

---

Continued Guidelines for Severe Sepsis or Septic Shock

Complete within 6 hours of Severe Sepsis/Septic Shock Presentation
- If persistent hypotension after fluid administration OR if initial lactate ≥4, MD documents volume status and tissue perfusion reassessment.
- Administration of vasopressor per MD order for hypotension unresponsive to fluid treatment, goal MAP ≥ 65 and/or SBP >90
- If initial lactate is >2 obtain second lactate. *(reflexes automatically with initial lactic lab order)*

Where are we?

2023 / 2024	Sepsis Bundle Compliance % (Internal Benchmark of 75%)
October 2023	71%
November 2023	88%
December 2023	100%
January 2024	85%
February 2024	88%
March 2024	83%
April 2024	89%
May 2024	54%

Staff really were engaged and concentrated on activating "Code Sepsis" and ensuring compliance to our algorithm.

Unfortunately, we did have small set back in May, and have scheduled some mandatory education to discuss our failures.