ASSESSING THE SEPSIS KNOWLEDGE GAP

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OVERVIEW

Sepsis Bundle Compliance

- Project in place to meet the SEP 1 bundle compliance
- Sepsis Collaborative monthly meetings
- Sent out to systemwide RNs to address the current knowledge gap
- RN Sepsis education blitz in April
- Ongoing QI project
- ED project
- ICU project Fall of 2024

Sepsis Best Practice Advisory

Fires when a patient's chart triggers sepsis risk from abnormal vitals, test results, and/or chart documentation

Should prompt the nurse to be on high alert and have open communication with the provider about sepsis risk

Place orders for blood work, if prompted, and contact admitting physician for orders if patient is boarding

SURVEY RESULTS

180 responses returned

1. I routinely hit "chart review only" when I get the Sepsis BPA

More Details

Yes	125
No	55

2. If you selected yes to #1, select all that apply: (If you did not select yes to #1, proceed to question 3):

More Details

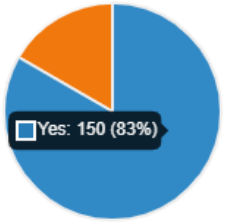
Unclear understanding of BPA	40
I do not suspect sepsis in my pa...	94

SURVEY RESULTS

3. I feel confident contacting the provider for additional orders when Sepsis is suspected

More Details

Yes	150
No	30



4. I know how to utilize the Sepsis Navigator (inpatient)

More Details

Yes	82
No	95

5. I feel that we treat septic patients timely and adequately

More Details

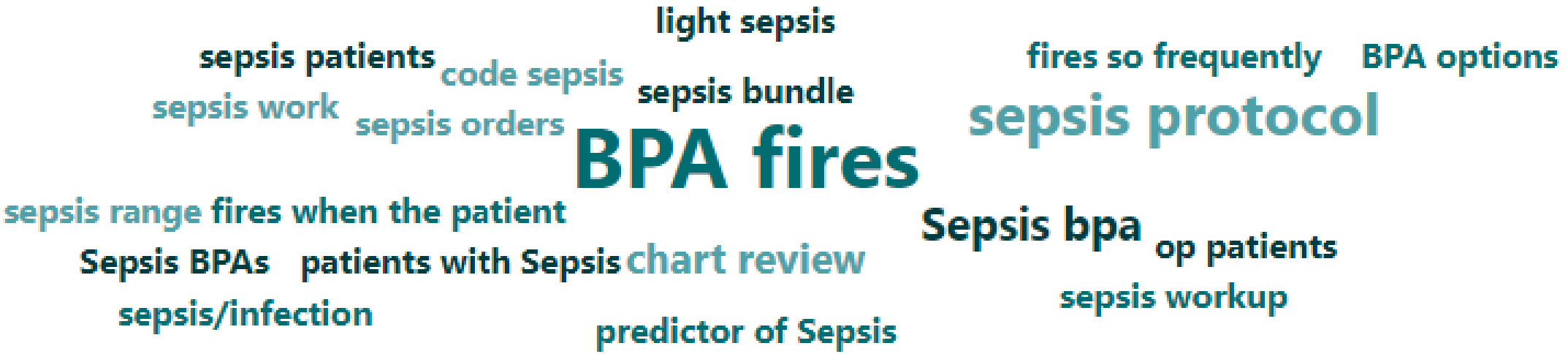
Yes	141
No	38

ADDITIONAL FEEDBACK

60 responses

...

14 respondents (**23**%) answered **BPA fires** for this question.



ONGOING QI PROJECT: APRIL EDUCATION

St. Elizabeth HEALTHCARE

Sepsis Bundle Compliance Checklist

Sepsis Identification

Severe Sepsis Clinical Criteria

Severe Sepsis is identified by either provider documentation of severe sepsis or the presence of the following clinical criteria occurring within 6 hours.

Infection

- ☐ Known/Suspected Infection

AND SIRS (Must have 2+)

- ☐ HR > 90
- ☐ Temp > 100.9F (38.3 C) OR < 96.8 F (36 C)
- ☐ WBC > 12,000 OR < 4,000 OR > 10% bands
- ☐ RR > 20

AND Organ Dysfunction (Must have 1+)

- ☐ Lactate > 2
- ☐ Bilirubin > 2
- ☐ Creatinine > 2
- ☐ INR > 1.5
- ☐ PTT > 60
- ☐ BP < 90 OR decrease ≥40 from base
- ☐ MAP < 65
- ☐ New Vent/BiPap/AVAP
- ☐ Platelets < 100,000

Septic Shock Clinical Criteria

Septic Shock is identified by either provider documentation of septic shock or the presence of the following clinical criteria.

Severe Sepsis

- ☐ Meets criteria or has documentation of Severe Sepsis

AND 1+ of the Following

- ☐ Lactate ≥4 within 6 hours of Severe Sepsis start time
- ☐ Persistent or new onset hypotension within 1 hour of fluid administration and 6 hours of Severe Sepsis identified by 2 consecutive instances of:
  - ☐ BP < 90
  - ☐ MAP < 65
  - ☐ Decrease in BP ≥ 40 mmHg

Sepsis Bundle Requirements

The bundle clock starts with provider documentation of Severe Sepsis/Septic Shock or when the last clinical criterion is met, whichever occurs **first**.

Severe Sepsis

3-Hour Bundle:

- ☐ **1. Blood Cultures** – collection attempt required prior to IV antibiotic administration and 48hrs prior to 3 hours after severe sepsis start time
- ☐ **2. Lactate** – collection required 6 hours prior to 3 hours after severe sepsis start time
- ☐ **3. IV Antibiotics** – administration required after blood culture collection 24 hours prior to 3 hours after severe sepsis start time
- ☐ **4. Fluids** (only with hypotension) – 30ml/kg crystalloid fluids initiated 6 hours prior to 3 hours after initial hypotension

6-Hour Bundle:

- ☐ **Repeat Lactate** – required within 6 hours of severe sepsis start only if initial lactate >2 or not resulted

Septic Shock

3-Hour Bundle:

- ☐ **Fluids** – 30ml/kg Crystalloid Fluid Resuscitation - initiated 6 hours prior to 3 hours after initial hypotension or septic shock start time (whichever occurs first)

6-Hour Bundle:

- ☐ **Vasopressors** – only with persistent hypotension (2+ hypotension events w/in 1 hour of fluid bolus) or new hypotension after fluid administration initiated w/in 6 hours of Septic Shock Start Time
- ☐ **Repeat Assessment** – repeat volume status and tissue perfusion assessment if persistent or new hypotension after fluid administration or a lactate ≥4

Allowable Exclusions and Modifications

- ☐ **Patient or Authorized Representative Refusal** – refusal by patient/rep documented before or within 6 hours of Severe Sepsis/Septic Shock start time during current encounter.
  - Severe Sepsis Bundle: Excluded if patient/rep refuses Blood Draw, Fluids, or IV Antibiotics
  - Septic Shock Bundle: Excluded if patient/rep refuses Blood Draw, Fluids, IV Antibiotics, or Vasopressors
- ☐ **Hospice Care, Palliative Care or Comfort Measures** – Active referral, recommendation, or request for hospice, palliative care, or comfort measures only documented **during the current encounter** before or within 6 hours of Severe Sepsis/Septic Shock start time. (Ex: documentation to continue with hospice/palliative/comfort measures only, or a new referral/recommendation/request for hospice/palliative/comfort measures.)
- ☐ **Fluid Order Modifications** – 30ml/kg can be based on ideal body weight if BMI > 30 (IBW must be documented). Fluids can be reduced below 30ml/kg if the fluids are ordered as a specific volume or weight-based volume w/ documentation of contraindication (contraindication must be documented with amount ordered).
- ☐ **Blood Culture Collection** – Documented collection attempt or reason for collection delay are acceptable (ex: documentation of difficult stick, unable to collect, or attempted collection)
- ☐ **Provider Rule Out** – Documentation that patient has viral infection source, that Severe Sepsis/Septic Shock is not suspected, or that SIRS/Organ

Created: 4/9/2024
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Practice Update Reminder:
Sepsis Navigator and Bundle Tips

A Sepsis BPA and Order Set Survey was recently sent out to gauge knowledge of sepsis and the use of the BPA. Based on the results and feedback, here are some tips:

Have you ever wondered if your patient was at risk for sepsis or wondered why the sepsis BPA was firing.

- Theres no need to hit chart review to explore, you can do so within the BPA by clicking the Explore link. The Sepsis Navigator can be used as a tool, in addition to patient's clinical presentation, to assess patient's sepsis risk and escalate care if warranted.

We do not need to wait for the BPA to fire to act.

- Be proactive, assessing for risks and potential signs and symptoms of sepsis. Communicate concerns in bedside report, rounds, Secure chat etc. See included checklist, and make a copy for yourself, to help identify potential sepsis patients and information related to sepsis bundles.

Consider these items related to sepsis to help improve overall patient outcomes:

- Make sure you get an actual weight as soon as possible on your patient.
- Document a progress note when labs (lactic, procalcitonin, blood cultures) are unable to be obtained.
- Ideally obtain blood cultures first, then start antibiotic.
  - Do not let difficult sticks/clotted central lines delay treatment. If we document the reason for delay in blood culture, we are good to initiate antibiotic and still meet CMS guidelines.
- Even if we do not think there is an infection, the healthcare provider needs to be notified as they must review the case to make appropriate documentation. This acknowledgement/documentation of the situation is what suppresses the BPA.

EMERGENCY DEPARTMENT OVERVIEW

- Starting with: Sepsis overview (all from St. E's official criteria)
- Surviving Sepsis Campaign's Bundle elements - emphasizing timely/routine vital signs
- BPA Overview (don't ignore BPA)
- Importance of IV placement, updating providers, and documentation of any delays
- Handout from ENA for “why”

SURVIVING SEPSIS CAMPAIGN'S BUNDLE ELEMENTS

1

Measure Lactate Level and Obtain Blood Cultures

- Utilize Steripath Blood Culture Collection device for patients >18 years
- Patient care technicians, not RNs, should be drawing blood cultures

2

Administer broad spectrum antibiotics

- Obtaining BCs ASAP is essential so that there is no delay in antibiotics

3

Begin rapid administration of 30 ml/kg crystalloid for hypotension or lactate greater than or equal to 4 mmol/L

- Providers *need* height and weight documented to place fluid resuscitation order
- Minimum hourly vital signs + blood pressure x2 after fluid infusion complete

4

Apply vasopressors if hypotensive during or after fluid resuscitation to maintain a MAP greater than or equal to 65 mm Hg

- Communicate with providers ASAP if post fluid resuscitation BPs are not improved

NEXT STEPS

- 2024 Hicuity Goal
  - Increase Sepsis Bundle Compliance by 5% in the ICUs
- Implement Code Sepsis Response Team in the fall of 2024 in the Florence and Ft Thomas ICUs
  - Plan to include at a system level after 6 month trial
- Collecting baseline data for Q1 on all patients with a diagnosis of Sepsis
- Continue to monitor monthly compliance
- BPA (Best Practice Alert) fires for RNs prior this BPA only fired on admitted patients.
- Education rollout
- Monitor compliance with ED providers – Monthly quality reviews.

ICU

EMERGENCY DEPARTMENT

QUESTIONS?

Thank You