# Applicability

Henry Ford Health

# Scope

This policy applies to all Henry Ford Health Emergency Departments involved in the care of patients presenting with possible sepsis.

# Background

'The 2021 surviving sepsis campaign guideline highlights the importance of recognizing sepsis as a medical emergency for which treatment should begin immediately. Nurses are often the first to recognize early signs of sepsis. This policy is intended to ensure nurses are empowered to execute orders intended to aid in the screening for sepsis, thus enabling timely identification, evaluation, and treatment of patients at risk for severe sepsis/septic shock

### Protocol Exclusions

Maternal-Child, NICU and Pediatric patients under 15 years of age who present to the ED.

# Definitions

**Systemic Inflammatory Response Syndrome (SIRS)**: Criteria to define the clinical response to a nonspecific insult of either infectious or noninfectious origin, consisting of 2 or more of the following:

- Temperature (Temp) > 38.3°C (100.9°F) or <36°C (96.8°F)
- Pulse >90 beats/min
- Respiratory Rate (Resp) >20 breaths/min
- White Blood Cell (WBC) Count <4000 cells/µl or >12000 cells/µl or Bands >10%
- SBP < 90 mmHg (**SBP is not SIRS criteria per CMS guidelines, however it is included as part of triage screen due to its importance to identify high risk patients with sepsis)

**Sepsis**: The systemic response to infection defined by the presence of 2 or more SIRS criteria in addition to documented or suspected infection.

**Severe Sepsis**: Sepsis with end organ dysfunction as evidenced by:

- lactic acidosis (>2 mmol/L)
- SBP <90 mmHg or SBP decrease ≥40 mmHg from baseline
- acute respiratory failure (requiring new need for intubation, BiPAP or CPAP)

- creatinine >2 mg/dL
- urine output <0.5 mL/kg/hr for 2 hours
- bilirubin >2 mg/dL
- platelet count <100,000 cells/µl
- INR >1.5
- PTT >60 sec
- MAP <65 mmHg

**Septic Shock**: Severe sepsis with persistent hypotension despite adequate fluid resuscitation (30 mL/kg bolus; unless there is convincing evidence of significant pulmonary edema), or any patient meeting the severe sepsis criteria who has a lactate ≥4 mmol/L.

# Policy

This order set is authorized for use as a standing order from the System Sepsis Program committee – delegated the chair of that committee. This order set is intended for placing lab orders that screen for the presence of severe sepsis/septic shock

1. 21 Chief Complaints at time of triage in combination with 2 SIRS criteria will trigger the Suspected Sepsis Best Practice Advisory (BPA). The 21 chief complaints include:
    1. Shortness of Breath
    2. Altered Mental Status
    3. ER Eval
    4. Fever
    5. Abdominal Pain
    6. Chest Pain
    7. Unresponsive
    8. Back Pain
    9. Emesis
    10. Hyperglycemia
    11. Sick
    12. Chills
    13. Fatigue
    14. Cough
    15. Diarrhea
    16. Dysuria
    17. Urinary Frequency
    18. Post-Op Problem
    19. Cellulitis
    20. Skin Ulcer
    21. Abscess

    **This list is based on the 21 most common chief complaints of severe sepsis/septic shock patients and is subject to change upon frequency of complaints.

2. If sepsis is suspected by the RN, the following orders may be entered by the RN and completed, in addition to notification of the ED Provider of the potential sepsis patient:
    1. Complete Blood Count with differential
    2. Basic Metabolic Panel
    3. Arterial Blood Gas/Venous Blood Gas with lactate x 0 and 3 hours OR Plasma lactate x 0 and 3 hours
    4. Blood cultures x 2 (2 different sites)
    5. PT/PTT/INR
    6. Saline lock

Each Henry Ford Campus' ED will be responsible for the implementation of a coordinated response to the sepsis BPA that includes provider notification and expedited initial laboratory screening and treatment for sepsis.

If during the patient's subsequent workup, the patient meets criteria for Severe Sepsis or Septic Shock, an additional Severe/Shock BPA will fire. The RN will determine the appropriate response based on local Henry Ford campus' code sepsis policy and procedure.

# Procedure

Each Henry Ford Health System ED procedure will vary slightly based on local triage practices and resource availability, as defined by department leadership. See Appendix A for general ED Sepsis Work-flow. The following will serve as a template for the implementation of the protocol for Sepsis Screening Orders in the ED.

### Response to Suspected Sepsis BPA (Appendix B):

1. Patient presents to any Henry Ford Health ED with 1/21 chief complaints concerning for sepsis AND patient has 2/4 SIRS criteria, the Suspected Sepsis BPA will fire.
2. If the RN completing triage suspects sepsis, they will enter sepsis screening orders per protocol and notify the Henry Ford Health ED (campus specific) designated provider.

   This will complete the Suspected Sepsis BPA and it will not fire again.

   ALTERNATIVELY — at the Henry Ford Health ED campus who opt not to order screening labs in triage due to their local triage process — the RN completing triage will immediately notify Henry Ford Health ED (campus specific) designated provider and expedite evaluation and orders as directed by provider.
3. If the triaging RN does not suspect sepsis:
    - RN selects "Triage Nurse – No suspicion of sepsis" completing the Suspected Sepsis BPA for that user only. BPA will fire for second/bedside RN.
    - If the bedside RN DOES suspect sepsis based on additional assessment findings, they will order sepsis screening labs and saline lock per protocol, complete the orders and notify ED Provider.

This will complete the Suspected Sepsis BPA and it will not fire again for any user.

    - If the bedside RN also has no suspicion of sepsis, they will select "Bedside Nurse – No suspicion of sepsis," completing the Suspected Sepsis BPA for all users.
4. If the initial chief complaint and vital signs are completed by an ED Tech/Paramedic and meet the criteria in **step 1**, the Suspected Sepsis BPA will fire.
    - The Tech/Paramedic will notify the ED RN and select "Nurse Notified." This will complete the Suspected Sepsis BPA for that user only.
    - Suspected Sepsis BPA will continue to fire for RNs until **steps 2** (acknowledge the Sepsis BPA--either clicking "Not Directly Providing Care for Patient," "Already Done," "No Suspicion of Sepsis") or **3** (ordered Sepsis workup according to Sepsis protocol or ED physician) are completed.
5. When an RN has clinical suspicion for sepsis based on physical findings, complaint and/or abnormal vital signs not otherwise triggering the screening BPA alert, the RN should alert the Henry Ford Health (campus specific) designated provider to evaluate the patient and initiate orders as deemed appropriate.

### Response to Severe Sepsis/Septic Shock BPA:

1. Patient in the ED has 2/4 SIRS criteria AND suspicion of infection AND has any 1 of the Severe Sepsis/Septic Shock criteria, Severe/Shock BPA will fire.
2. RN determines next appropriate action based on Henry Ford Health ED (campus specific) code sepsis policy

## Related Documents

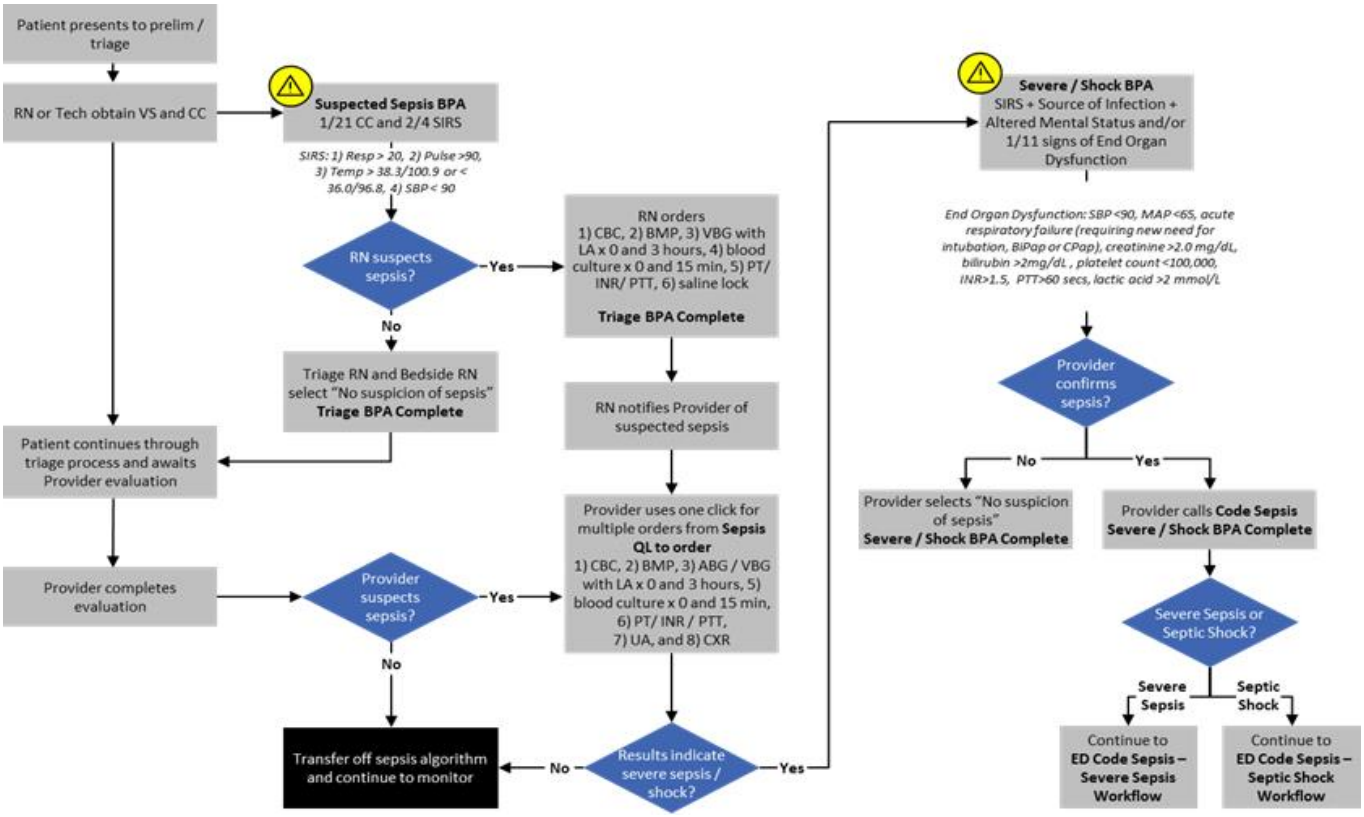
Tier 1: Code Sepsis

## Reference/External Regulations

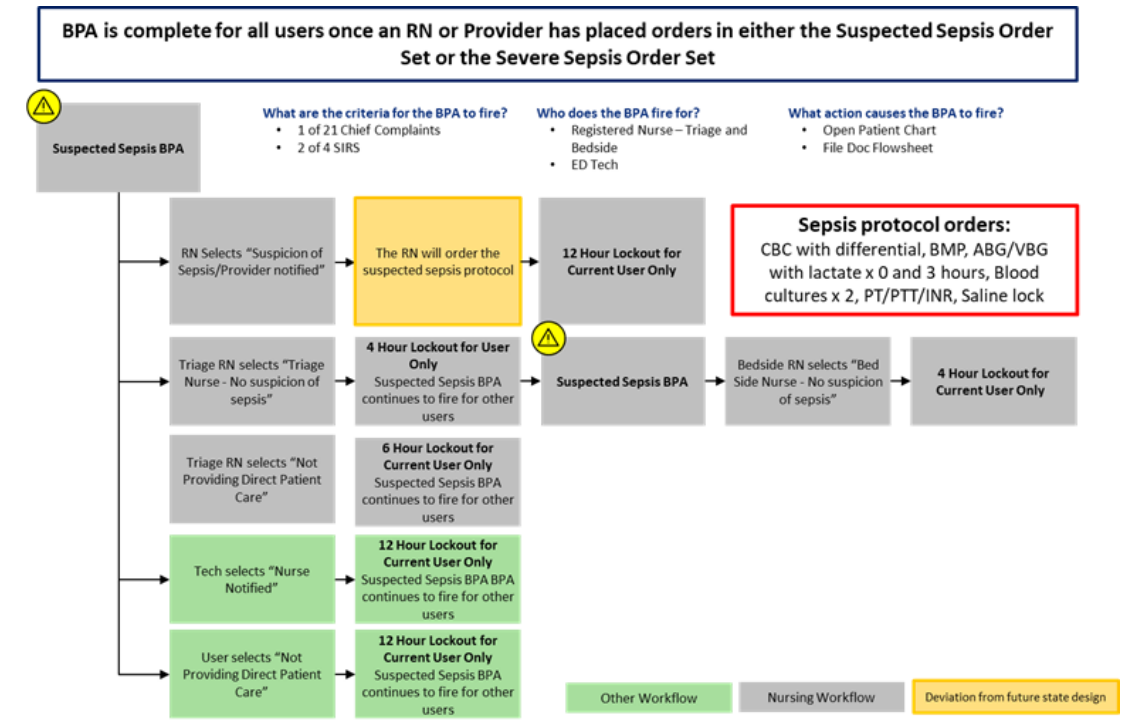

1. ICD-10-CM Official Guidelines for Coding and Reporting. Centers for Medicare and Medicaid Services. 2018. https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2018-ICD-10-CM-Coding-Guidelines.pdf
2. Gregory Schmidt, MD; Jess Mandel, MD. (2020, 02 11). Evaluation and management of suspected sepsis and septic shock in adults. Retrieved 02 20, 2020, from UpToDate: https://www.uptodate.com/contents/evaluation-and-management-of-suspected-sepsis-and-septic-shock-in-adults
3. Taylor Ramsdell, PharmD; April Smith, PharmD, BCPS; Eric Kerkhove, PharmD, BCPS. (2017, 03). Compliance with Updated Sepsis Bundles to Meet New Sepsis Core Measure in a Tertiary Care Hospital. Retrieved 02 20, 2020, from NCBI: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5396984/
4. CMS

# Appendices

## Appendix A: ED Sepsis Workflow




## Appendix B: ED Suspected Sepsis BPA




**Current BPA for Modification:** 2492 and 2644