

Epic (Nationwide) Sepsis Screening Tool

- Score generated based on various vitals, physical assessments, and labs within a 4 hour period.
- Suggested score of 6 to trigger BPA
- This tool has been running in the background at CHOA since 2019 system wide collecting data and trending potential future usage.

Score	True Positive	False Positive	Sensitivity	PPV
1	302	67747	86.04%	0.44%
2	293	59788	83.48%	0.49%
3	268	27572	76.35%	0.96%
4	234	18429	66.67%	1.25%
5	194	8790	55.27%	2.16%
6	154	3681	43.87%	4.02%
7	126	2100	35.90%	5.66%
8	71	502	20.23%	12.39%
9	42	305	11.97%	12.10%
10	6	20	1.71%	23.08%



Ramp #: 1

Test #: 1

Test Start Date: 1/13/22

Test Complete Date: 2/2/22

Project SMART Aim: Among patients that the BPA triggers (score of 8 or greater), increase proportion of patients that a huddle was completed from 0% to 80% by end of 2022

What key driver does this test impact? Accurate and timely identification of patients who will develop IPSO Sepsis AND Shared mental model among clinical team

PLAN:

A. Briefly describe the test:

If patient meets predefined criteria and scores 8 or higher, BPA will trigger that a huddle is needed on patient. Staff will huddle on patient and give classification (red, yellow, green). Appropriate next steps will be given via guideline

B: How will you measure the success of this test?

BPA will fire on all patients scoring 8 and higher. Huddle will be completed on 80 % of patients that BPA fires on. Appropriate staff huddle on patient. Correct classification given.

C. What do you predict will happen?

Huddle will be called. May be a delay in getting appropriate staff to show up for the huddle.

D. Plan for collection of data:

Tal's team to build Epic Report. Hannah to analyze and send data to team daily if possible

E. Tasks:

List the tasks necessary to complete this test (what)	Person responsible (who)	When
Staff Education – RN and MD	Michelle, Stephanie, Dr. Bui, Dr. Cheng	Begin 1/11/22
Epic Build - BPA	Evan, Tal	

DO:

Was the Cycle Carried out as planned? Yes or No

Record Data and Observations.

- Many BPAs trigger on patients in a Medical Emergency in trauma room. Should a huddle be done? Exclude from denominator?
- There has been a case or two where the "s" was on the board but BPA never fired.
- Huddles being done but not documented.
- Data: Excluding Trauma room, 14 out of 17 had huddle (82.4%)

STUDY:

Did the results match your predictions? Yes or No

What did you learn? Compare the result of your test to your previous performance:

- Little to no issue with appropriate staff showing up for huddle in timely fashion.
- Need more education on making sure to document huddle in navigator
- Need Epic to display Sepsis information for both RNs and MDs in additional/different areas of Epic
- Look into patients that were treated for Sepsis prior to BPA triggering

Act: Decide to Adapt, Adopt or Abandon (shade one box)

Adapt. Improve the change and continue testing the plan.

BPA will not trigger on patients in a trauma room.

Adopt. Select changes to implement on a larger scale and develop an implementation plan and plan for sustainability.

Abandon. Discard this change idea and try a different one.

Epic Screenshots

ED Track Board (HSEMR)

Refresh | History | Dispo

All Pts (4) | My Pts (0)

Bed	Loc	S	Patient
ED 42			
ED 03			
		S	

Sepsis Advisory



Suspected Sepsis

Temperature: (!) 39 °C
Heart Rate (3-6 mo): (!) 190

NIBP (0-6 mo): 64/39
Respiratory Rate (3-6 mo): 65

What steps do I need to complete?

1. Call Charge RN (Charge RN pages huddle alert to team members)
2. Obtain a set of vital signs prior to the huddle
3. Complete Sepsis Huddle
4. Document huddle outcome in sepsis narrator

The following actions have been applied: _____

✓ Sent: This advisory has been sent via In Basket to the Data Collectors

Acknowledge Reason _____

Epic Screenshots

Event Log Patient Summary Orders

← Triage Summary Printable Active Orders ED Pt Care Timeline Results Ongoing Vitals » **Sepsis Overview** 🔍 ⚙️

ED Early Detection of Pediatric Sepsis

Mark as Reviewed

██████████ - Score calculated 3 minutes ago

10

High

Range	Value
8 - 15	High
4 - 7	Medium
0 - 3	Low

Factors Contributing to Score

Contribution	Factor	Value
30%	Lowest systolic BP in 4 hours	64
20%	Latest capillary refill time	abnormal
20%	Worst temperature in 4 hours	39 °C
20%	Fastest respirations in 4 hours	65
10%	Latest skin condition/temperature	abnormal

Factors Not Contributing to Score

Description

View model formula and coefficients

Current estimated likelihood of a patient being septic. This model is designed to run for all current pediatric patients in the Emergency Department.

Vitals (last day)

Date/Time	Temp	Pulse	Resp	BP	SpO2	Weight	PEWS Score	Who
11/30/22 14:40:20	38.9 °C !	188 !	65	75/45	100 %	—	—	RC
11/30/22 14:37:06	39 °C !	190 !	65	64/39	100 %	—	—	RC
11/29/22 1840	—	—	—	—	—	—	2	LN
11/29/22 1836	—	168	60	—	100 %	—	—	RR
11/29/22 1739	—	120	48	—	100 %	—	—	RR
11/29/22 1737	—	122	41	—	100 %	—	—	EA