



Clinical IS Job Aid

Contact IUH Service Desk
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Effective Date
Beginning March 1, 2021

Topic: Systemic Inflammatory Response Syndrome (SIRS) Alert and Sepsis Screening for Pediatric ED Patients - Providers

Facility: IU Health Emergency Departments – Rolling Go Drive

Audience: Emergency Physicians, Fellows, Residents, Advanced Practice Providers

What: Reference guide for Emergency Department (ED) providers who respond to the pediatric SEPSIS alert.

Why: Sepsis is an inflammatory response triggered by infection, with a high in-hospital mortality rate. Early recognition and treatment can reverse the inflammatory response, with evidence of improved patient outcomes.

Overview

New functionality is being introduced that will use pediatric algorithms to evaluate vitals and diagnostics in Cerner. If enough criteria are met, the:

- Nurse will receive a corresponding alert and will complete a secondary screening form for SIRS and Sepsis.
- SIRS, Sepsis Alert, or Severe Sepsis Alert will display in LaunchPoint.
- Provider will receive alert when the patient’s chart is opened for consideration of next steps.

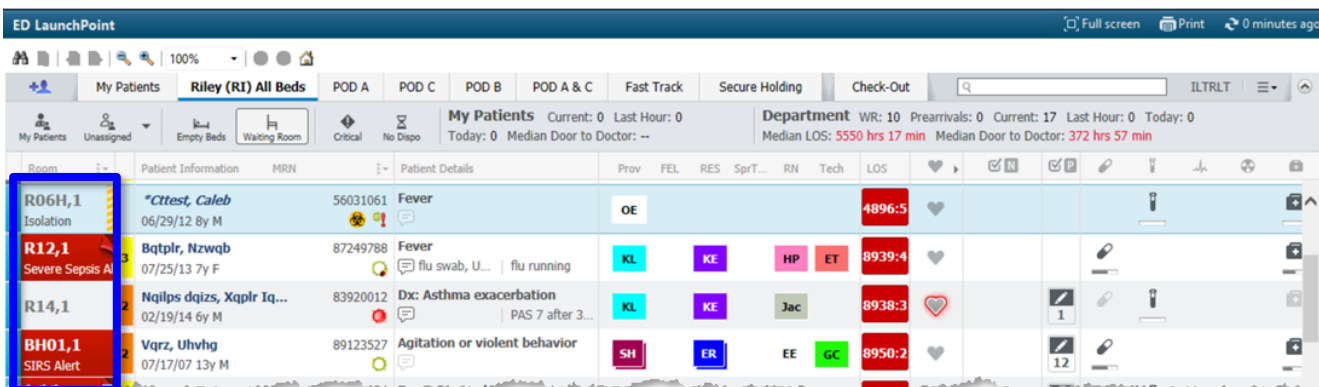
Note: If it is determined **Treatment Is Not Indicated** for any reason other than sepsis treatment already in progress, the LaunchPoint alert display will be removed.

Prerequisites

The provider’s alert is generated when Cerner identifies the patient as having the following:

- **SIRS Alert** - 2 or more qualifying Systemic inflammatory response syndrome (SIRS) criteria + score of 2 or more from the nursing sepsis screen
- **Sepsis Alert** - 2 or more qualifying SIRS criteria + 1 qualifying non-Cardiovascular organ dysfunction system
- **Severe Sepsis Alert** - 2 or more qualifying SIRS criteria + either Cardiovascular organ dysfunction system or 2 or more qualifying non-Cardiovascular organ dysfunction systems

ED LaunchPoint displays the SIRS, Sepsis Alert, or Severe Sepsis Alert in the Room column to indicate the positive screen. Once vitals are signed, it may take 1-2 minutes for the SIRS alert to fire and LaunchPoint display to update.



Note: If an ED Sepsis plan has already been initiated prior to alerts firing, alerts are suppressed.

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Prerequisites (continued)

The tables below highlight the **Pediatric Sepsis Algorithm** that triggers the alert.

Systemic Inflammatory Response Syndrome (SIRS) Criteria

Criteria (at least 1 qualifying Temperature or WBC)	age < 7 days	ages ≥ 7 days to < 1 month	ages ≥ 1 month to < 2 years	ages ≥ 2 years to < 6 years	ages ≥ 6 years to < 13 years	ages ≥ 13 years to < 18 years
Temperature (DegC)	< 36 or ≥ 38.5	< 36 or ≥ 38.5	< 36 or ≥ 38.5	< 36 or ≥ 38.5	< 36 or ≥ 38.5	< 36 or ≥ 38.5
WBC (k/cumm)	> 34	< 5 or > 19.5	< 5 or > 17.5	< 6 or > 15.5	< 4.5 or > 13.5	< 4.5 or > 11
Heart Rate (bpm)	< 100 or > 180	< 100 or > 180	< 100 or > 180	> 140	> 130	> 110
Respiratory Rate (br/min)	> 48	> 48	> 40	> 30	> 26	> 21

Organ Dysfunction Systems

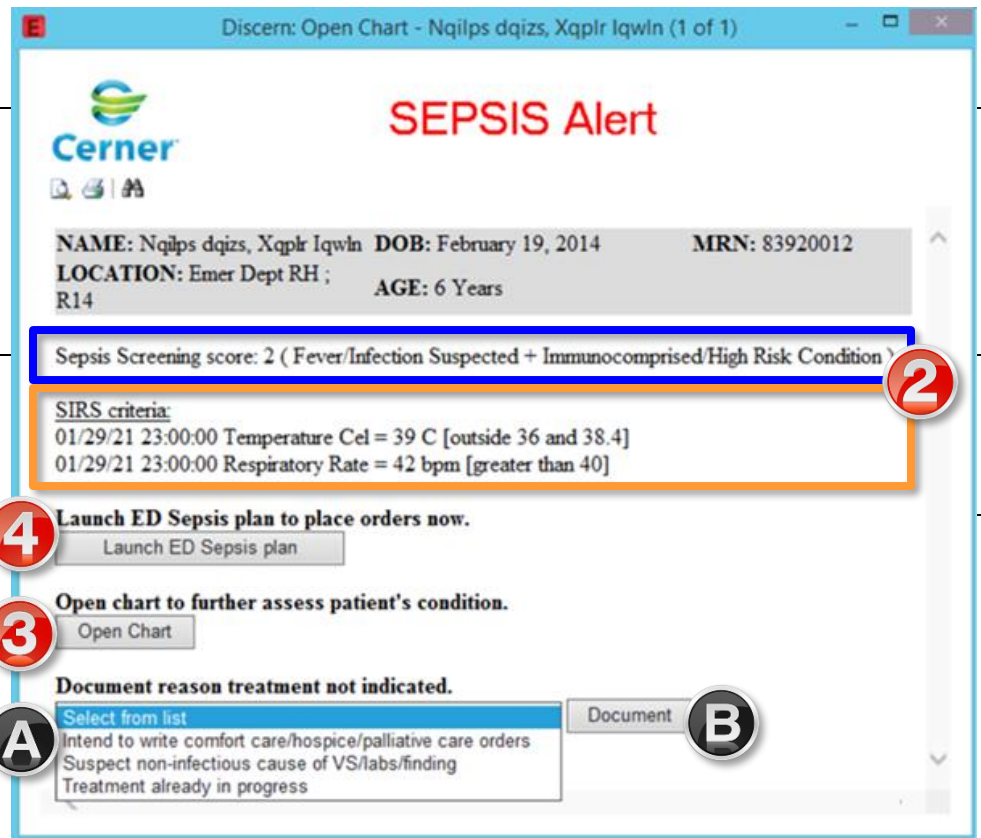
Cardiovascular	Hematologic	Hepatic	Neurologic	Renal	Respiratory
Low Systolic Blood Pressure	Low Platelets	High Bilirubin	Low Peds Coma Score or Glasgow Coma Score	High Creatinine	High PaCO₂
2 of the following: <ul style="list-style-type: none"> Low Bicarbonate High Lactate Prolonged (≥ 3 seconds) Capillary Refill High Core to Peripheral temperature gap Abnormal Pulse Quality Abnormal Skin Assessment 	50 % Decrease in Platelets in the last 72 hrs	High ALT	Coma Score decrease of 3 or more points over 72 hrs	Creatinine doubled over 72 hrs	PaCO₂ increase of 20 mmHg over 72 hrs
	High INR		Low or decreased mental status		Low PaO₂/FIO₂ in the absence of cyanotic heart disease
	Low ANC				High FIO₂

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Respond to the Alert

Step	Action
1	Open patient's chart from ED LaunchPoint <i>The Discern Open Chart alert displays.</i>
2	Review the Sepsis Screening score and qualifying SIRS criteria displayed in the alert. <ul style="list-style-type: none"> • Displays the nurse's sepsis screening results • Displays identified criteria from the Pediatric Sepsis Algorithm
3 Optional	Click the Open Chart button to further investigate if treatment is needed.
4	Click the Launch ED Sepsis plan button to order diagnostics, antibiotics and/or fluids. <i>The Sepsis alerts cease to fire.</i>



Document a Reason that Treatment for Sepsis is not Indicated

5	<p>A Click Select from list and select the appropriate reason.</p> <p>Note: When sepsis bundle has already been initiated, select Treatment already in progress as Reason Treatment is not Indicated</p> <p>B Click Document.</p> <p><i>If Treatment Is Not Indicated for any reason other than sepsis treatment already in progress, the LaunchPoint alert display will be removed.</i></p>
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Note: If patient now qualifies for a more severe alert level, alerting 'cycle' begins again (as long as ED Pediatric Sepsis plan has not been initiated).