ED Sepsis Recognition and Treatment Flow Sheet FAQ's and Recommendations

Why did the System Sepsis Steering Committee develop these?

- Through research and reviewing available data it was found that >80% of patients diagnosed with sepsis present to the ED. After discussion with key stakeholders in every IU Health Region, recognition and early initiation was found to be key drivers in improving sepsis care in our hospitals.

How did the System Sepsis Steering Committee choose the content for the Sepsis Recognition and Treatment Flow Sheets?

- For each sheet, a sub-committee consisting of team members from different IU Health hospitals and disciplines participated in the development of these sheets. Each committee reviewed the recognition and treatment flow sheets already existing in IU Health, current literature, and feedback from quality abstractors and sepsis leaders on where we needed to improve sepsis care.

Does every ED have to implement the Sepsis Recognition and Treatment flow sheet? What if we already have one we like?

- The Emergency Medicine Clinical Council unanimously voted to have a single Flow Sheet used across the system. Several physicians work in different EDs and it was thought best to standardize our approach to sepsis recognition and treatment. Every ED is expected to implement the Sepsis Recognition and Treatment flow sheet into their ED standard work. How it is implemented will look different based on the dynamic of the ED. (Triage vs no triage, overhead announcements vs no overhead announcements etc.)

Are we expected to screen EVERY patient that comes in the door? Do we have to fill out a sheet for everyone who comes in the door?

- Yes, it is expected that 100% of patients are screened. How else do we ensure we are capturing 100% of the patients. Did you know that Rory Staunton, the 11 year old who died of sepsis prompting New York's sepsis legislation, died of sepsis from a small scratch he got on a playground? Sepsis is not always obvious. We have to always be on high alert.
- No, you do not have to fill out a sheet on everyone who comes in to the ED. If they come if for a simple trip on curb and hurt my ankle that does not need a sheet. Nor does the chest pain patient that is found to have a STEMI and goes to the cath lab. However, the "body aches and fever" who only has fever on vitals probably should have one filled out so that we learn to go through the process of identifying patients at risk and specifically looking for signs and symptoms of sepsis.

Will it always be on paper? There are a lot of words on here and it seems like a big waste of paper and time! Flu season is coming up!

- The goal is not to always have it on paper! However, we suspect lots of changes will be made to it over the next several months. We recognize there

are a lot of words. We are hoping this form also serves an education opportunity. As we all become better education on the signs and symptoms of sepsis the goal is to simplify.

There is a lot of emphasis on antibiotics. Do we not need to worry about the rest of the "sepsis bundle?"

- The sepsis bundle is important so please encourage providers to order using the ED Sepsis OrderSet and to complete the sepsis bundle to their discretion. That being said, literature supports early antibiotics as the major driver in decreasing mortality. Our initial data at IU Health also supports early antibiotics decreasing mortality.

What about fluid resuscitation? Are the docs being forced to give 30 mL/kg bolus?

- Physicians should use their discretion when giving fluids. Septic patients need fluid volume. Most physicians agree that patients likely needed more fluid than what they were given in the past. It is appropriate to use ideal body weight or adjusted body weight to calculate the mL/kg bolus. Please have physicians document that they used the weight adjustment. For some patients, 30 mL/kg may not be best for several reasons. Please have the physician document why they did not give 30 mL/Kg. (Also note that EMS fluids do count towards the fluid bolus.)
- Please also note that it is expected to start norepinephrine if the patient remains hypotensive during and/or after the fluid bolus.

By what date should we have this implemented?

- The goal is to have this implemented by the end of 2019. However, every hospital is in a different spot so if more time is needed please let the steering committee know how we can be of assistance.

Recommendations for successful implementation:

- ED leadership support and communication to ED team on roll out and expectations
- ED physician, ED bedside nurse, ED triage nurse (when available), and ED PCA involvement in developing ED work flow.
- Standard work for where to keep flow sheet, who in charge of stocking, where they are placed when completed, and who collects to review
- Collaboration with inpatient teamson expectations for completing the form and where they should be placed when completed
- Sharing of standard work with staff and frequent review of process

Lastly, this is a work in progress that has been >6 Months in the making but is not perfect. The Sepsis Steering Committee appreciates your feedback, both good and bad. This is just one of many tools that can hopefully assist with continuing to increase sepsis survivorship at IU Health.

Important Sepsis Steering Committee Endorsement

IU Health Leadership,

*The Emergency Medicine council met on **October 9, 2019**, and reviewed the proposal of a standard sepsis screening tool and treatment flowsheet across all the emergency departments for IU Health. The council unanimously approved the submitted proposal from the Sepsis Steering committee and is presenting this letter as verification of full endorsement of this process and implementation.*

*The council agreed to **January 1, 2020**, as the deadline to implement these sepsis tools within the Emergency Departments. Please work with the appropriate personnel at your facility to ensure timely and effective implementation. If you have further questions, please contact your Emergency Medicine council site representative listed below.*

Dr. Chris Strachan

Physician Chair, Emergency Medicine Clinical Council

Emergency Medicine Council Representatives	
Location	**Members**
Council Chair (ECR)	Christian Strachan
CHIO	Jason Schaffer
Nursing Leader (Ball)	Rebekah Dillon
Adult AHC	Lindsay Weaver
Methodist	Steve Roumpf
Arnett	Marc Estes
Saxony/West	Kevin Nowak
Indy Sub Region	Megan Crittendon
North/Tipton	Courtney Soley
Frankfort	Pamela Herbert
West	Karen Crevier
Eskenazi	Tyler Stepsis
Riley	Brian Wagers
Jay/Blackford	Gregory Chupp

Sepsis recognition

Triage RN:_____

Date: _____ **Time:**_____

❑ **Altered mental status from baseline – move to sepsis alert below**
(Unless clear alternative cause of altered mental status. Example: seizure)

❑ **Infection complaint: fever, shivering, "I feel like I might die," breathless**
- ❑ Pneumonia **(cough, SOB, chest pain)**
- ❑ Urinary tract infection **(urgency, frequency, dysuria, foul smelling or cloudy urine)**
- ❑ Acute abdominal infection **(abdominal distension, abdominal pain, change in bowel habits)**
- ❑ Skin/soft tissue infection **(abscess, cellulitis, wound, skin drainage, swelling, red streaking)**
- ❑ Bone/joint infection **(redness, swelling, pain, joint immobility)**
- ❑ High-risk medical history **(recent surgery, obstetrical history, long-term care facility, recent antibiotic use, positive blood cultures)**

High risk for sepsis
- ❑ **Immunocompromised:** active cancer/undergoing chemotherapy, transplant patient, taking immunosuppressant (steroids, autoimmune), HIV/AIDS
- ❑ **Chronic Invasive lines, drains, and tubes:** Foley catheter, central or PICC line, dialysis catheter

Yes

No

Altered mental status
and/or
Meets ≥2 SIRS criteria
- Heart rate ≥90 bpm
- Temperature ≥38.3°C or ≤36°C
- Respirations ≥20 bpm
- MAP ≤65, Systolic blood pressure ≤90
- WBC ≤4,000 mg/dl or ≥12,000 mg/dl

Caution: Patients ≥ 65 years may not develop significant fever and are less likely to develop tachycardia.

Consider patient's overall presentation

Altered mental status may be the patient's only complaint with sepsis presentation especially with extremes of age. Consider continuing with the sepsis algorithm unless there is an obvious other source.

No

Continue to reevaluate for changes in vitals/ condition

Yes

Activate sepsis alert

Sepsis alert activation: Please check each box when completed

- ❑ Document actual weight, height and allergies in Cerner
- ❑ Write **Time Zero** on treatment tool (back of paper) and hand to bedside nurse
- ❑ Provider notified time: ____:____ am/pm

Provider initials: _____

- ❑ Yes, initiate ED Sepsis Order set and treatment protocol
- ❑ No, patient is not septic.

  Comment: _____

  _____
- ❑ Unsure, will reevaluate for sepsis at ____:____ am/pm

Patient label

(Please see reverse side for Sepsis treatment)

Indiana University Health

Sepsis treatment

Bedside RN:_____

Date: _____ **Time:**_____

Check boxes as completed and document time completed.

Start time/arrival

____:____ am/pm

ED arrival/Time Zero
(document EMS fluids)
Fill in target times

- ❑ **Provider to use ED Sepsis Power Plan for orders.** If provider unable to put in orders immediately, nurse may initiate Nursing Sepsis Protocol
- ❑ **IV access (2 sites preferred)** – notify provider if no access within 30 minutes
- ❑ Repeat vital signs Q 30 minutes x 2 – notify provider if abnormal
- ❑ **Lactate** *(Document lactate below)*
- ❑ **Blood cultures** x 2 first **before** antibiotics
- ❑ Labs, fluids, infectious source work up as appropriate

Blood pressure:
____/____
MAP_____

Target time
≤3 hrs from arrival
____:____ am/pm
Completed
____:____ am/pm

Broad spectrum antibiotics priority
Do not delay for source of infection or inability to obtain blood cultures (*please document why if antibiotics started before blood cultures)*
- Provider to use ED Sepsis Power Plan to order appropriate antibiotics based on suspected source

If hypotensive (2 readings):
SBP ≤90 or MAP ≤65)

Target time
≤3 hrs from arrival
____:____ am/pm
Completed
____:____ am/pm

1st lactate result
_____

If the lactate is ≥4, then bolus fluids and repeat the lactate in 2 hours *(please see automatic lactate reorder)*

If the first lactate is ≥2 but ≤4, redraw in 2 hours *(please see automatic lactate reorder)*

Repeat lactate 2 hours after first.
Time: ____:____ am/pm
Completed
____:____ am/pm

2nd lactate result
_____

If repeat lactate is ≥4

- ❑ **30 ml/kg of crystalloid IV fluid bolus** (Lactated ringers preferred) for hypotension and/or lactate ≥4

Weight (kg) _____ 30ml/kg = _____ for:

- BMI ≥30, provider may document ideal body weight and order bolus on IBW
- May also use adjusted body weight
- EMS fluids count towards total (document)

❑ Not given (fully) due to provider discretion. Document why:
_____

❑ **If still hypotensive** (MAP ≤65) during or after 60 minutes, then recommend **norepinephrine** as a vasopressor and sepsis reassessment to provider *(Titrate vasopressor to MAP ≥65).*

❑ **Provider sepsis reassessment:**
Provider to use =sepsis_reexam autotext

Patient label

Indiana University Health