CRT Sepsis Response Guidelines

*****Immediate Actions of CRT RN*****

CRT should call x 784 - 1537 (Intensivist APP) for any questions / concerns re: Sepsis Alerts

SEPSIS ALERT (To be completed in < 60 minutes) Review exclusion and inclusion criteria:

- Lactate POC – CRT RN to draw, RT to run STAT on Blood Gas Analyzer
- Draw and hold the following labs at the bedside while awaiting Provider orders:
    - 2 sets of blood cultures
    - CBC with differential, CMP, PT/PTT
- If initial lactate >2, place timed order for repeat lactate at 4 hours after Time Zero (phlebotomy draw)
- Confirm / establish IV access x 1, consider 2nd IV if lactate >4 or patient is hypotensive
- Notify Provider once lactate is known – see scripting
- Orders to be given by Provider
- Assist Bedside RN in completion of bedside orders, as needed

ANTIBIOTIC ADMINISTRATION:

A sepsis alert will mobilize the sepsis pharmacist to the bedside. It is extremely important that a pharmacist is dispatched to the bedside of a positive screen. The pharmacist will review the antibiotic order and deliver it to the bedside as rapidly as possible.

Time Zero (TZ)

The CMS definition-TZ for severe sepsis is when 3 of the following occur within 6 hours of each other:

- 2 or more SIRS
- 1 sign of organ dysfunction
- Suspected/possible source of infection

The CMS definition – TZ for septic shock is criteria for severe sepsis plus one of the following:

- Lactate $\geq$ 4
- Hypotension in the 1 hour following a 30 ml/kg bolus of crystalloid fluid

When responding to a sepsis alert and a positive sepsis screen (2 or more SIRS + possible infection or suspected infection), it is important to activate the sepsis alert asap to ***facilitate rapid turnaround for a lactate result via Nurse Draw> RT > MICU analyzer.***

- Determine Time Zero via chart review and discussion with staff
    - Initiate Handoff Tool (completed handoff tools can be delivered to the MICU managers office)

    - Review determination of Time Zero with bedside RN
        - Opportunity for sepsis education and emphasis on early recognition
    - Ensure bedside RN completion of handoff tool

<u>*Follow-up Actions of CRT RN - Sepsis Alert</u>**

- **If lactate >2**, patient will need repeat lactate drawn (CRT RN to ensure phlebotomy is scheduled to arrive on time) at 4 hours after Time Zero and after initiation of IV fluids – Notify Provider with repeat lactate result if >2 and inquire re: additional orders

- **If lactate ≥4** or patient is hypotensive
    - Initiate NS 30 mL/kg bolus - pressure bag infused – clarify MD order if needed – entire volume needs to be ORDERED AND STARTED within 3 hours of Time Zero. Recommended to run as rapidly as possible, but must run at a rate to exceed >125 ml/hr for CMS compliance
    - Consult with Provider re: Intensivist involvement and consideration of ICU transfer
    - Repeat lactate draw at 4 hours after Time Zero – Phlebotomy to draw and run in lab drawn (CRT RN to ensure phlebotomy is scheduled to arrive on time)
    - Notify Provider at as soon as 4 hour lactate is resulted with lactate value, and to prompt Provider to complete bedside assessment and document Provider Repeat Assessment via ".sepsisexam" feature in Epic, needs to be completed by Provider once IV fluids are initiated and within 6 hours of Time Zero for septic shock

<u>EXCLUSIONS:</u>

If patient is actively receiving treatment for sepsis / severe sepsis / septic shock, then no sepsis alert is required for 24 hours unless the patient is deteriorating from sepsis → severe sepsis or severe sepsis → septic shock.

Post-op 48 hours (elective cases), post-partum 48 hours → if called to evaluate these patients, assess for other etiologies, but do not activate sepsis alert.

Directive for Comfort Care or palliative care within 3 hours of presentation of severe sepsis

Directive for Comfort Care or palliative care within 6 hours of presentation of septic shock

Administrative contraindication to care

- ONLY acceptable sources are:
    - Physician/APN/PA documentation that patient/decision-maker refused either blood draw, fluid administration, or antibiotic administration; or
    - A signed or unsigned consent form marked "refused" that is witnessed by MD/PA/APN or other hospital personnel.

INCLUSIONS:

Blood cultures prior 48 hours prior to TZ – repeat not required

ANY IV Antibiotics given within 24 hours prior to TZ - repeat antibiotics are not technically required, but patient may need additional or different antibiotics. Pharmacy to review and make recommendations.

Labs are valid for up to 6 hours prior and to 3 hours following Time Zero, but be mindful of lactate value and need for timely repeat if initial is >2

SCRIPTING:

Scripting for phone call to Providers, and suggested Orders for Severe Sepsis and Septic Shock

Hello Dr. {name of provider}, this is {your name}, I'm the Critical Response Nurse taking care of {patient name} in room {room number}.

I've just completed a sepsis screening of the patient. He/she meets SIRS criteria based on the following: {state SIRS criteria met} and has a suspected infection of {state suspected source of infection}. The current lactate level is {state serum lactate}.

Based on my assessment, I believe this patient has {severe sepsis / septic shock}, based on the following criteria:

{***Severe sepsis***:

☐ Hypotension: SBP < 90 or MAP < 65 or drop in SBP > 40 points from baseline

☐ Creatinine > 2 or UOP < 0.5mL/kg/hr for > 2 hrs

☐ T. bili > 2 ☐ Platelets < 100K ☐ Lactate > 2mmol/L

☐ INR > 1.5 or aPtt > 60secs

☐ Acute respiratory failure as evidenced by new need for invasive/noninvasive mechanical ventilation

Septic shock: AS ABOVE and

☐ Lactate ≥ 4

☐ Hypotension in first hour after completion of 30ml/kg bolus

Last labs drawn: {state date/time and whether they were drawn within 6 hours of Time Zero, in which case repeat labs are not indicated}

Last Blood cultures were drawn: {state date/time or none during this admission and whether they were drawn within 48 hours of Time Zero, in which case repeat blood cultures are not indicated}

I have already {state interventions completed here}, and ***recommend the following orders*** *to continue with the sepsis bundle interventions:*

***Recommend**: Blood cultures x 2, CBC, CMP, PT/PTT, and if initial lactate >2 →order for repeat lactate draw (phlebotomy) in 4 hours after Time Zero*

If patient has severe sepsis with hypotension or septic shock: *I would like to **recommend** a 30 ml/kg bolus of NS IV*. Ideally this should run as rapidly as possible, but must be >125ml/hr to be CMS compliant. Clarify timing of bolus with Provider at the time of order placement. The full fluid amount MUST BE ORDERED AND STARTED within the first 3 hours of TZ, but infusion can exceed the 3 hour mark.

Are there any additional orders you would like me to initiate to search for infection? (Consider Urinalysis, Chest Xray, etc.)

Would you like to change the frequency of vital sign monitoring for the next 24 hours?

Would you like to place a consult to {Hospitalist for severe sepsis / Intensivist for septic shock}?

Would you like me to call you once orders are resulted?

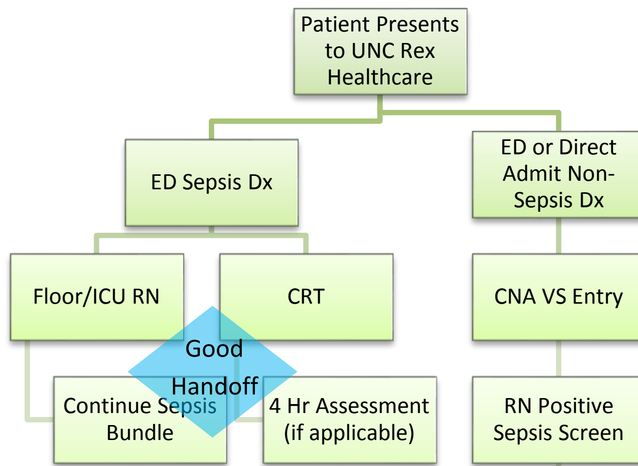
If initial lactate >2: I will be calling you if the repeat lactate remains >2.

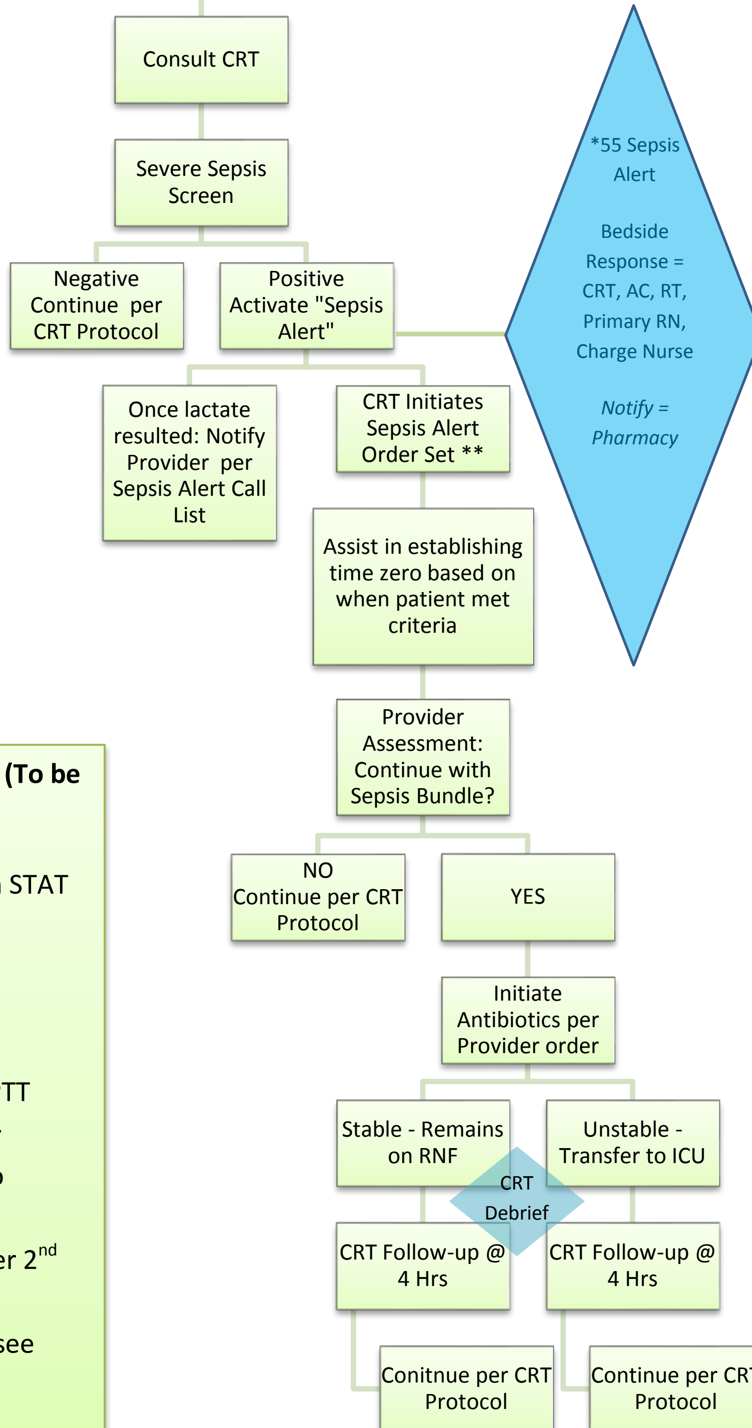
The sepsis Pharmacist is at the bedside and is available to speak with you about antibiotics at this time. Would you like to speak with them? Give phone to Pharmacist for antibiotic discussion. If Provider does not need to speak with Pharmacist, the get antibiotic orders as indicated.

******If the sepsis protocol is not initiated by the physician, ask for the reason or alternate diagnosis that he/she would like recorded in the patient's chart/on screening tool for not initiating the sepsis orders.******

UNC REX HEALTHCARE

Sepsis Alert Process Map





* Sepsis Alert Provider Call List:

- Rex Surgical patients: Call the Rex Surgicalist x2227
- NC Heart and Vascular patients: Call the Cardiology APP x3542 (they will complete bedside evaluation and involve Hospitalist as indicated)
- All Internal Medicine patients: Call the Hospitalist (include courtesy notification to Attending if non-hospitalist patient)
- **For patients who have a lactate ≥ 4 or does not respond to 30ml/kg Fluid Bolus, Call the intensivist x1535.**

**** Immediate Actions of Sepsis Alert Order Set (To be completed in < 60 minutes)**

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