Lutheran Hospital

Developing a Nurse-Friendly Sepsis Tracking Tool

7/26/17

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Original Tool

- First nursing tracking tool implemented 5/2/16
- Hybrid of forms used at 2 other regional hospitals
  - To be initiated at time of first sepsis lactate draw
  - Assisted nurse in tracking where patient is on the sepsis pathway
  - Included prompts for drawing blood cultures, repeat lactate level

Alert Tracker

Sepsis Alert Tracker

Patient Label

Date Identified _____ Time _____

3 hour time_____ 6 hour time _____

Two or more (SIRS) of the following parameters must be true:

- Temperature >38.3°C (101°F) OR <36°C (96.8°F)
- WBC >12,000 or < 4,000
- Pulse ≥ 100
- Respirations >22
- Systolic BP <90
- Systolic decrease of 40 points or more since the last BP
- MAP ≤ 65
- O2 Sat ≤ 92%

BPA 1 Fires for ≥ 2 SIRS

Call H.O. for Lactate order

Lactate Draw – Clock starts

Lactate result ≥ 2.1 BPA 2 fires

Call H.O.

-Start sepsis order set

-Sepsis care path

-Blood Cultures

-ATBX

-Fluids 30ml/kg unless H.O. writes contraindication

At 3 hours…

Repeat Lactate

Before 6 hours- Call H.O. for .sepsis note

➢ Within 3 hours of Severe Sepsis (source +2 SIRS + organ dysfunction)

✓	What	Time Completed	Comments
	Lactic Acid ordered and DRAWN (Initial) Result_____		
	Sepsis Order set and Sepsis Care path initiated		
	Blood Culture drawn prior to Antibiotics started		
	Antibiotics started		

➢ Within 3 hours of onset of SBP < 90, MAP < 65, Systolic decrease of 40 points or more since the last BP or Lactate > 4

✓	What	Time Due	Time Completed	Comments
	30ml/kg IV fluids ordered and started			
	IF initial lactate > 2, REPEAT Lactate			
	Vasopressors for SBP < 90, MAP < 65, SBP decrease of 40 points or more since the last BP			

➢ Within 6 hours of Severe Sepsis/Septic Shock: Hypotension treated with fluids/pressors, and/or Lactate > 4

✓	What	Time Due	Time Completed	Comments
	.Sepsis note by house officer			

Issues

- Outdated
- No differentiation between severe sepsis vs. septic shock
- Form too confusing, “busy”
- Low rate of use / return

Goal: To create a sepsis tracking tool that aligns with CMS criteria and is user-friendly

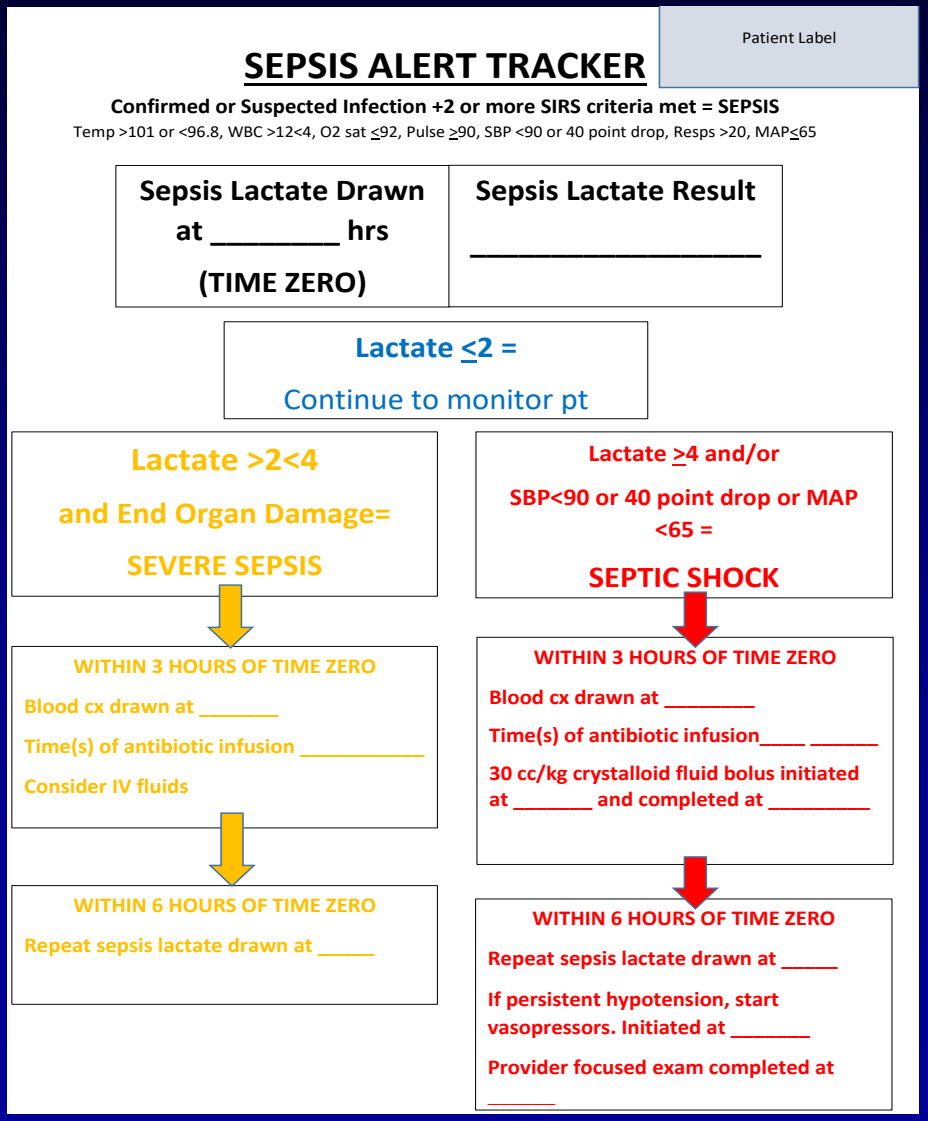
Process

- Collaboration between Quality and Nursing
  - Utilized feedback from bedside RNs
  - ED, ICU, 4D Medical unit
- Requirements for New Form:
  - Easy to follow, logical, succinct (“a flowsheet that actually flows”)
  - Clear differentiation between severe sepsis and septic shock

Process, cont'd

- Improvements
  - Streamlined form to reduce visual clutter
  - Updated form to reflect current CMS requirements (ex: SIRS criteria, fluid bolus)
  - Created separate color-coded paths for severe sepsis and septic shock
  - Included antibiotic reference tool on back of form

Documentation



SEPSIS ALERT TRACKER

Patient Label

Confirmed or Suspected Infection +2 or more SIRS criteria met = SEPSIS

Temp >101 or <96.8, WBC >12<4, O2 sat ≤92, Pulse ≥90, SBP <90 or 40 point drop, Resps >20, MAP≤65

Sepsis Lactate Drawn at _____ hrs (TIME ZERO)	Sepsis Lactate Result _____

Lactate ≤2 =

Continue to monitor pt

Lactate >2<4

and End Organ Damage=

SEVERE SEPSIS

WITHIN 3 HOURS OF TIME ZERO

Blood cx drawn at _____

Time(s) of antibiotic infusion _____

Consider IV fluids

WITHIN 6 HOURS OF TIME ZERO

Repeat sepsis lactate drawn at _____

Lactate ≥4 and/or

SBP<90 or 40 point drop or MAP <65 =

SEPTIC SHOCK

WITHIN 3 HOURS OF TIME ZERO

Blood cx drawn at _____

Time(s) of antibiotic infusion____ _____

30 cc/kg crystalloid fluid bolus initiated at _____ and completed at _____

WITHIN 6 HOURS OF TIME ZERO

Repeat sepsis lactate drawn at _____

If persistent hypotension, start vasopressors. Initiated at _____

Provider focused exam completed at _____

Therapies

The Patient must receive 1 antibiotic from the monotherapy table or on the combination therapy table receive 1 antibiotic from column A and 1 antibiotic from column B to pass the SEP measure

CMS Monotherapy Broad Spectrum Antibiotics- RNs give this antibiotic first:

Ivanz (Eratapenem)	Ceftazidime/avibactam (Avycaz)
Primaxin (Imipenem/Cilastatin)	Merrem (Meropenem)
Rocephin (Ceftriaxone)	Maxipime (Cefepime)
Teflaro (Ceftaroline fosamil)	Avelox (Moxifloxacin)
Levaquin (Levofloxacin)	Unasyn (Ampicillin/Sulbactam)
Zosyn (Piperacillin/Tazobactam)	Ceftolozane/tazobactam (Zerbaxa)

CMS Combination Therapy: The patient must receive 1 antibiotic from column A and one from column B

Column A		**Column B**
Aminoglycosides {Amikacin, Gentamicin Tobramycin}		Cephlosporins (1st and 2nd gen)
OR		OR
Aztreozam	+	Clindamycin
OR		OR
Ciprofloxacin		Daptomycin
		OR
		Glycopeptides {i.e. Vancomycin}
		OR
		Linezolid
		OR
		Macrolides {i.e.Azithromycin}
		OR
		Penicillins

Vasopressors:

Norepinephrine (Levophed)	Epinephrine (Adrenalin)
Phenylephrine (Neosynephrine)	Dopamine (Inotropin)
Vasopressin (Pitressin)	

Results

- Piloted in ED on 5/1/17
- Went live house-wide on 5/24/17
- Preliminary May compliance rate = 80%
- Rate of return greatly increased
- Positive nursing feedback thus far

Questions?

Cleveland Clinic

Every life deserves world class care.