Inova Fairfax Hospital ED

CMS Core Measure for Severe Sepsis and Septic Shock

September, 2017

The CMS core measure for severe sepsis and septic shock (SEP-1), is a major area of focus at Fairfax. The major reason this core measure is important is that it drives down mortality from sepsis. As we have become more compliant with this CM, our hospital wide adjusted mortality for sepsis has dropped significantly.

This core measure is also important to all hospitals that participate in Medicare. Compliance with this core measure is reported to CMS and it drives a large portion of the variable compensation to hospitals, and will do so for years. Ultimately, your individual compliance will be reported to the government and be available to the public. This core measure is important to CMS, individual hospitals, and will be important in any job you apply for.

Here is how we approach this core measure at Fairfax.

* To be included in the “denominator”, or the cohort of patients that may be identified as having either severe sepsis or septic shock, a given patient must have known or suspected infection and be SIRS positive. SIRS positive means two of the following must be true-
	+ Pulse > 90
	+ RR > 20
	+ Temperature either > 100.9F or < 96.8F
	+ WBC either > 12,0000 or < 4,000 or > 10% bands
* If SIRS +, severe sepsis exists if there is evidence of end organ damage, manifested by any one of the following
	+ Lactate > 2
	+ SBP < 90 or MAP < 65 or SBP > 40% less than prior reading
	+ Creatinine > 2
	+ Bilirubin > 2
	+ Platelets < 100,000
	+ INR > 1.5
	+ Acute respiratory failure (either invasive or non-invasive ventilation
	+ If the provider uses the term “severe sepsis” anywhere in the chart
* **Lactate > 2** - When one of these patients has end organ damage – typically via a lactate > 2 – we **HUDDLE**. Our sepsis huddle is one of the tools we use from **TeamSTEPPS**. The huddle is initiated by anyone on the team, typically the nurse. A huddle occurs in or outside the patient’s room and includes the attending, resident, nurse and tech. We use a sepsis huddle sheet to identify 3 and 6 hour (from the time of end organ damage) time limits and a **shared mental model** as regards the patient.
* Patients with lactates > 2 and < 4 the following have to occur within 3 hours – blood cultures drawn before the first antibiotic is started, all antibiotics started, a 30 mL/kg NS bolus started, and a repeat lactate ordered (needs to be resulted by 6 hours)
* **Lactate > 4 or Hypotension** - Septic Shock is defined as being SIRS positive and having a lactate >= 4 OR 2 hypotensive BP readings in the hour after a 30/kg NS bolus finishes. These patients require:
	+ Two BPs recorded in the hour after a bolus finishes. If there are two hypotensive readings in that hour, the patient requires another bolus and a pressor if the hypotension continues by 6 hours
* **DEBRIEF** – For patients who are in any way challenging, the team debriefs for a few minutes. We discuss what went well, what could have been done better, and suggestions for improvement. This is another **TeamSTEPPS** tool that we employ. Suggestions are placed in the charge nurse report and escalated to leadership the next day.