

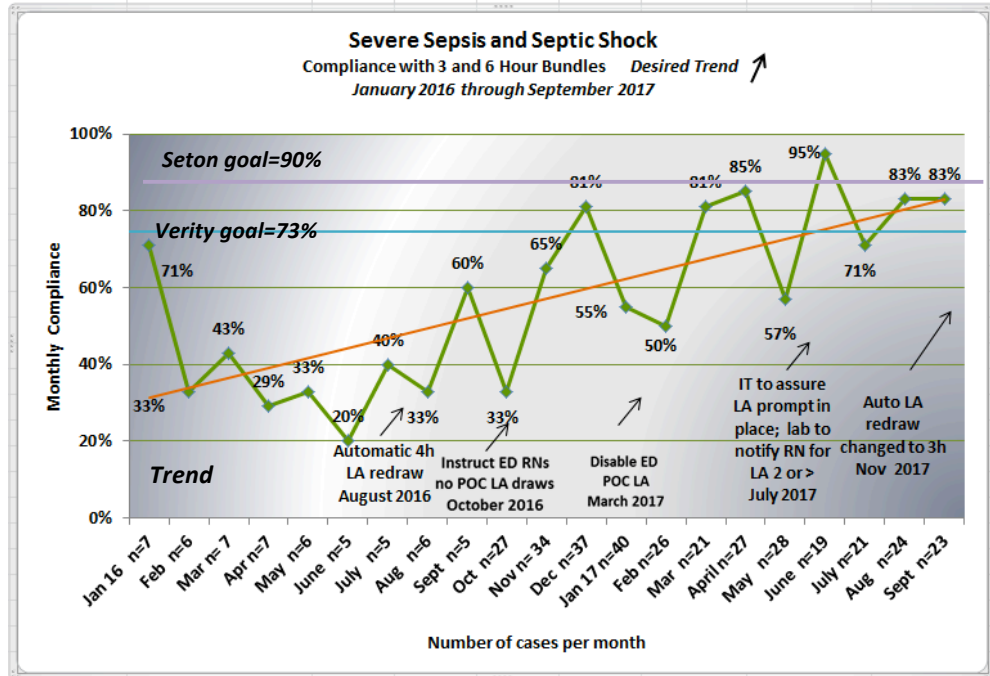
Rationale		
HV	=	High Volume
LV	=	Low volume
HR	=	High Risk
PP	=	Problem Prone

December 4, 2017

Performance Improvement Summary

Process: Severe Sepsis and Septic Shock Three Hour and Six Hour Bundle
Goal: 90% compliance by December 2017
Methodology: Monthly retrospective data abstraction is submitted to Premier for collation, and reported in the Quality Measures Performance Report - Hospital Performance Trended Data.

Rationale:	Time Period:	Reported To:
HR, PP	January 2016 through September 2017	Sepsis, Patient Safety Hospital PI, and Cancer Committees



Analysis / Discussion: Cancer patients are known to be at high risk for infection and the development of severe sepsis and septic shock. In 2009, Seton embarked on a program to decrease mortality due to severe sepsis and septic shock through implementation of early identification and treatment. Sepsis screening and early goal directed therapy (EGDT) - consisting of lactate level measurement, blood cultures, antibiotic administration, and fluid resuscitation within the first 3 hours - became integrated into nursing and physician practice. The baseline mortality rate of 18% decreased to 13.2% by Q3 2013 and Seton was recognized by BEACON for its reduction in sepsis mortality. In October 2015, severe sepsis/septic shock were added to the CMS core measure set, with the addition of a 6 hour bundle consisting of repeat lactic acid and MD assessment of volume status. Compliance with the measure is “all or nothing”- all elements are to be met or compliance for any given patient is zero. With an established program in place, the initial results did not meet our expectations. Review of the data demonstrated that the greatest opportunity was improvement in obtaining the 6 hour lactic acid. Another area of improvement is administration of the full volume complement, historically a challenge in patients with cardiac/renal compromise.

Actions Taken / Recommendations: A multidisciplinary team of physicians, nurses, ED, lab, pharmacy, informatics, and quality was formed in August 2016, and meets monthly. Intensivist Dr Rai is our sepsis champion, as is Dr Nee, Medical Director of ED. As timely LA redraw was the indicator with the most opportunity for improvement, the group recommended that any initial lactic acid level ≥ 2 be redrawn within four hours. IT, in conjunction with lab, built this automatic lab draw in ARCIS, and was rolled out that month. The sepsis order set was revised, a sepsis action checklist was created, and Code Sepsis, a system wide initiative, went live Dec 2016. **Follow Up:** Effect of the automation, with incremental tests of change in the process, resulted in timely LA redraws. Compliance in Sept 2017 was 83%, exceeding the goal set by Verity. Focus will now turn to completion of the 6 hour MD assessment of volume status and tissue perfusion for those patients with initial LA of 4 or greater, inconsistently done when patients are admitted to the med-surg units. Other actions implemented to improve compliance include new hire RN education; MD educational module; and a sepsis badge card that is underway. **Plan:** Next sepsis team meeting January 2018; continue PDCA process and focus on missed opportunities.

