

An automated sepsis alert system improves length of stay and reduces mortality

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Description: Sepsis is the most common cause of death in ICUs and has been named the most expensive inpatient cost in American hospitals. Through interdisciplinary collaboration, a clinical redesign was developed to improve the care of the inpatient who develops sepsis by the utilization of the rapid response team (RRT) and the creation of a sepsis alert. The alert triggered a workflow by the RRT-provider that involved provider-level interface with the patient and triggered appropriate treatment and transfer to higher level of care if required.

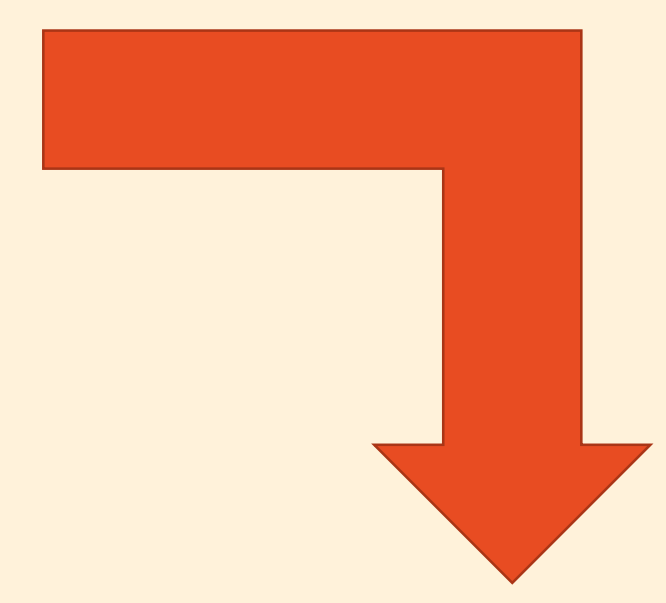
Aim: Reduce mortality and length of stay by early identification and treatment of sepsis through a computer generated alert system

Actions: A sepsis alert is fired to the rapid response provider phone if an inpatient meets pre-specified criteria. The rapid response provider initiates appropriate workup and treatment of sepsis with blood cultures, lactic acid check, fluid bolus, and antibiotic administration if the patient is determined to be truly septic.

Summary of Results: Average length of stay for inpatient sepsis dropped from almost 7.8 days at the end of FY 2017 to just over 6.5 days through the first nine months of FY 2018 – a decrease of more than 15 percent (1.16 days). Mortality has decreased by 4.73% and 2.37% in quarter 2 and 3 of FY 2018 when compared to similar quarters in 2017.

- 2 SIRS criteria
- 1 organ dysfunction
- Suspected infection

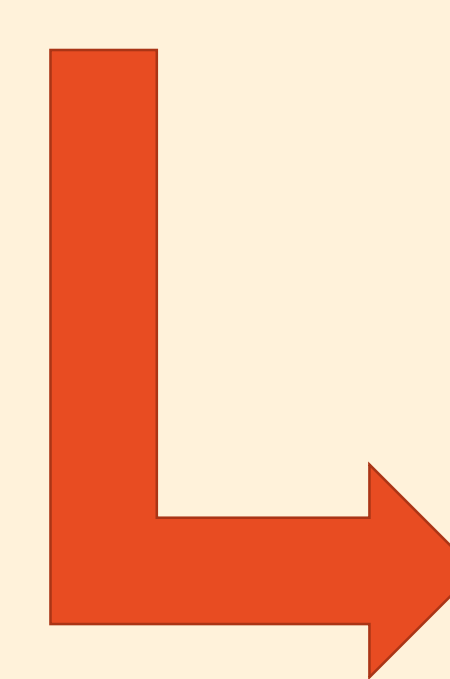
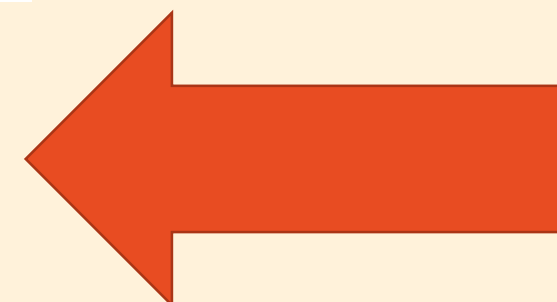
Computer generated alert system



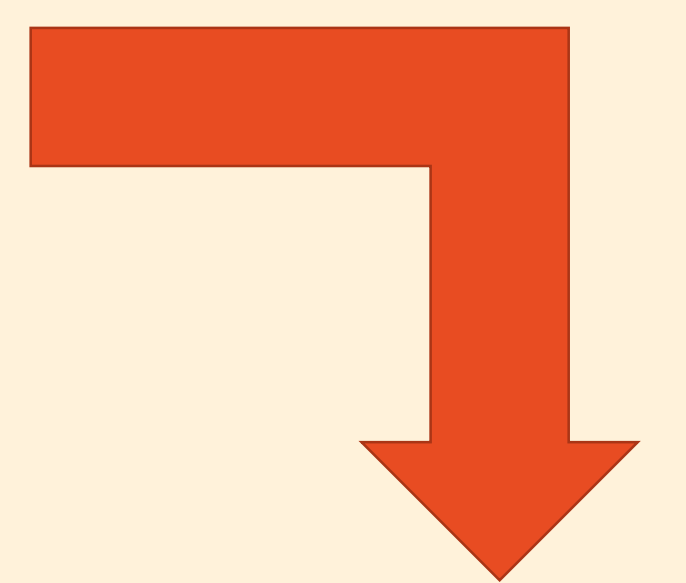
RRT- Provider reviews EMR



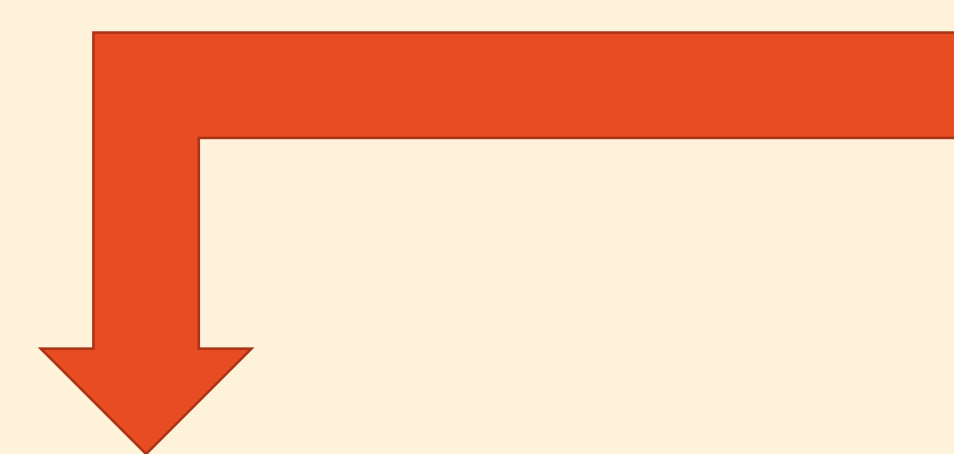
RRT- Provider alerted



Bedside evaluation



Inform primary team and nurse



Utilize sepsis orderset



Initiate treatment

