An Adult Sepsis Identification and Resuscitation Pathway
Innovative Tactics Beyond the Traditional Bundle

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Purpose

This poster details an adult sepsis identification and resuscitation pathway in an academic, tertiary care Magnet® hospital, designed to comply with the 2016 Centers for Medicare & Medicaid Services Core Measures for Sepsis.

Evidence

Sepsis is the leading cause of death in hospitalized patients, with estimated mortality between 25-50 percent. Evidence shows that reducing mortality due to severe sepsis requires an organized process that guarantees the early recognition of severe sepsis, along with standard and consistent application of sepsis resuscitation algorithms. A seminal study in an acute, tertiary teaching facility focused initially on sepsis recognition and treatment in emergency departments (EDs), reducing overall sepsis mortality by approximately 50 percent in a six-year period (2008-2013).

References:

Innovations

- Use of end-tidal CO2 as a triage tool for early identification of sepsis
  Evidence - End-tidal CO2 less than 25 is indicative of a serum lactate level greater than 4, suggestive of severe sepsis
- Inclusion of the pre-hospital, emergency medical system community to facilitate early recognition and treatment of sepsis
- Aggressive and early fluid resuscitation in the pre-hospital setting and ED
- Designated bundled actions within 90 minutes compared to core measure 3 hours metrics
- 4-way disposition conference call including a bed management triage nurse and ED, intensive care and hospital medicine providers

Outcomes

- Reduced overall sepsis mortality by approximately 50 percent in a six-year period (2008-2013)
- Evidence: Level 1-2 evidence supporting the pathway
- Improvement in 3-hour metrics: Septic shock lactate clearance, Blood cultures drawn, Vital Signs and lactate measure 3 hour metrics
- MODIFIED Sepsis Alert Criteria for Pre-hospital, ED, Inpatient ICU: Sepsis patient for severe PCN or MDR colonization/infection
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