

ABSTRACT TITLE: Impact of Updated Sepsis Protocol Posters, Order Sets and Education on 90 Day Mortality at Portland VA Healthcare System.

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Background: Evidence has shown early recognition and response to patients with symptoms of sepsis resulted in better outcomes and decreased mortality. Previously, our healthcare system had limited screening, no unified approach to sepsis care or sepsis bundle to support rapid ordering of antibiotics, fluids and labs.

Purpose: The purpose is to evaluate our updated sepsis protocol, to determine if current targets of fluid resuscitation, timely antibiotic administration, and use of lactate levels were met and associated with sepsis 90 day mortality.

Methods: An updated sepsis protocol and electronic order set bundle went live in August of 2015. Updated sepsis education was provided by the Critical Care (CCU) and Emergency Department Attendings as well as five CCU RNs. Subjects were selected using nationally accepted sepsis criteria. Retrospective chart reviews were completed on 43 patients by CCU RNs from August through November 2015. Data collection focused on 4 data points: average fluid resuscitation, antibiotic delivery times, initial and follow up lactate levels, and 90 day mortality. The subjects were then divided into subsets of sepsis, severe sepsis, and septic shock.

Results: Based on the 43 reviewed patients, an average of 2.6 liters of fluid resuscitation, equivalent to 29ml/kg, were administered. Antibiotic delivery rates and associated 90 mortality: sepsis - 129 minutes and 18% mortality; severe sepsis - 131 minutes and 11% mortality; and septic shock - 241 minutes and 14% mortality. All patients had a lactate drawn and 100% of those with elevated levels had a follow up.

Conclusion: Fluid resuscitation amount and use of lactate levels to determine treatment efficacy were adequate; however delivery of antibiotics is an area of opportunity. The main nursing implication is advocating for expedited antibiotic administration.