

TITLE: Hospital Wide Sepsis Alert Protocol, Analyzing a Large Data set

FACULTY MENTOR:

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RESEARCH PROJECT DESCRIPTION:

Sepsis is the systemic inflammatory response to infection, which can lead to acute organ dysfunction and death. Severe sepsis has a high mortality rate and is the most expensive condition to treat in the United States. The adoption of sepsis resuscitation bundles has been shown to decrease mortality by as much as one-third and timely identification and treatment of sepsis decreases mortality, length of stay, and cost. The purpose of our hospital-wide Sepsis Alert Protocol which began November 19th, 2014, was to implement a comprehensive approach to the recognition, diagnosis, and treatment of patients with sepsis, severe sepsis, and septic shock. We derived a large dataset from the hospital EMR, retrieving data on sepsis admissions before and after the integration of Electronic Health Record (EHR) monitoring for sepsis and the Sepsis Alert Protocol, an EHR order-set for bundled care of sepsis. This de-identified dataset includes over 4000 sepsis inpatient admissions and contains patient level data on primary, secondary, and tertiary diagnosis, sepsis protocol utilization, pertinent lab-values, clinical outcomes, hospital and ICU length of stay, and more. The role of the student in this project will be to work with two research-oriented clinical emergency medicine faculty and statisticians at UF Health Jacksonville to derive a hypothesis, a primary research question, and develop and design a study from the data provided. Students will also gain exposure to other ED-based clinical research studies and will learn to screen and accurately identify patients with severe sepsis. Students interested in gaining clinical research experience are encouraged to apply, particularly those with an interest in Emergency Medicine or Critical Care.