

## **Sepsis: Find it, Act on it, An Interdisciplinary Approach**

**Author- Lori Godaire MS, CCRN, CNL**

**Purpose and Rationale:** To evaluate whether the use of evidence based, early screening modalities can improve mortality rates for adult patients, presenting as either a primary diagnosis of sepsis in the emergency department or for inpatients with hospital acquired diagnosis of sepsis at a moderately sized community hospital. **Research Questions:** Can the use of an early warning scoring (EWS) system for screening both in the emergency department and on the inpatient, adult medical/surgical and telemetry units reduce hospital acquired severe sepsis and septic shock mortality? **Synthesis of Review of Literature:** Over the course of several years, various early warning systems for timely recognition and treatment (track and trigger) of physiologic changes in acutely ill adult patients have been studied. These studies have demonstrated that higher early warning scores are associated with increase mortality. These studies have also shown with variable degrees of promise the potential for improving patient outcomes with proficiently executed scoring and intervention methods. Much of the literature discusses the accountability of nursing for proficiency in executing this scoring as the key elements to the score are derived from nursing assessment; furthermore, the detection of patient deterioration is a primary nursing obligation. However, there are well described barriers in the literature for how and why the scoring may be executed less proficiently. **Methods:** Utilizing the “Early Warning Scoring” system from Wake Forest Baptist Health, the records of those patients who had a decline in status on the inpatient units, requiring either transfer to the progressive care or critical care units were retrospectively reviewed. This review included any possible miss of sepsis symptomology in the ED along with review of the last 24-48 hours of inpatient vital signs and other early warning score items prior to the patients need for transfer. Another important focus was to detect if utilizing the early warning score resulted in a needless sounding of an alarm, which would ultimately render the scoring method to become white noise for the nursing staff. **Results:** Over six months of intermittent retrospective review, 27 patient records were examined for the possibility of having detected patient status decline prior to the need for transfer to higher level of care. Of the 27, 12 patients’ decline in status was notable by an early warning score that would have triggered notification of the patient’s medical provider up to 10 hours prior to the patient requiring transfer. 2 of the 27 cases demonstrated dramatic results, with scores detecting decline up to 20 hours before transfer, potentially avoiding the need for these patients to be intubated. A sample of random patient records were also reviewed over the 6-month period resulting in 0 occurrences where the EWS sounded an unnecessary alarm. **Application:** Following these results, the sepsis committee agreed to recommend that an early warning scoring intervention become part of the inpatient nursing and medical management for early detection of severe sepsis and septic shock.

