Improving the Accuracy of Sepsis Screening and Bundle Compliance Rates through Unit-Based Education and Dual Nurse Screening
Linda Davila, RN, BSN, PCCN | 7West Cardiac and Thoracic Surgical Unit

Purpose

- To implement and evaluate a nurse-driven sepsis bundle protocol on a cardiac and thoracic telemetry unit in aims of improving sepsis screening accuracy and bundle compliance rates
- To reduce sepsis fallouts (events), increase nurse knowledge, and promote nurse autonomy

Synthesis of Evidence

- As a new core measure in 2016, sepsis accounts for one in two or three inpatient hospital deaths and significantly impacts healthcare resources and expenditures (Kramer et al., 2015)
- The complexity of sepsis requires a systematic, multifaceted approach to prevention and delivery of care
- Evidence has shown that education programs directed at promoting sepsis bundles have increased compliance rates and decreased hospital mortality (Capuzzo et al., 2012; Chen et al., 2013)
- Moreover, independent double checks have improved risk identification during medication administration, resulting in improved patient safety (Baldwin & Walsh, 2014)
- Bedside handover report was chosen as the preferred screening time, because existing studies have suggested that this process builds teamwork, ownership, and accountability (Baker, 2010)
- Lastly, evidence has shown that team-based active learning techniques facilitate the application of new knowledge (Kolluru, Roesch, & Akhtar de la Fuente, 2012)

Nurse-Driven Practice Change

- Sepsis screening was standardized to occur for each patient during handover report
- Both nurses carefully address each component of UCLA’s Adult Sepsis Screening Tool
- In turn, the incoming nurse is able to establish an accurate baseline on the patient, making it easier to recognize any subtle or significant changes that occur over the next twelve hours
- Unit-Based Education focused on the severity of sepsis-related mortality at the unit, hospital, and national level
- Through this educational training, nurses were empowered to improve the processes of sepsis care and motivated to improve bundle compliance rates after exploring their own unit-specific data

Implementation Strategies

**Education and Awareness**
- Unit-Based Education
- Handouts/Guides
- Sharing Unit Data
- "Sepsis: Medical Emergency" Video

**Sustainability**
- Positive Feedback
- Leadership Rounds/Support
- Frequent Updates

**Feedback and Outcomes**
- Huddle Messages
- Clinical Scenarios
- Receptiveness to Nurse Feedback

Evaluation

**Sepsis Screening Accuracy**
- Pre: 59%, Post: 32%
- Average pre- and post-scores increased from 62.22% to 82.18%, respectively

**Sepsis Fallouts**
- In 2014, the unit had 8 sepsis fallouts. Between March 2015 and September 2015, only one sepsis fallout has been attributed to the unit

Conclusion

- Sepsis screening accuracy has increased from 50% to 85-100% since implementation of intervention.
- In 2014, the unit had 8 sepsis fallouts. Between March 2015 and September 2015, only one sepsis fallout has been attributed to the unit
- Pre- and post-knowledge assessment tests were completed by nurses (pre = 59, post = 32) who participated in the unit-based sepsis education program. Average pre- and post-scores increased from 62.22% to 82.18%, respectively
- This practice change has significantly improved the way nurses screen, recognize, and treat sepsis, severe sepsis, and septic shock