



Using the EBP Sepsis Bundle to Decrease ED Mortality

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PURPOSE

Sepsis is the leading cause of death in non-coronary intensive care units and the 10th leading cause of death in the U.S. overall.

One in one hundred eighty five Americans were expected to be hospitalized in 2015 with sepsis. Sepsis is the most costly inpatient hospital condition with annual cost in 2011 estimated at 23.3 billion dollars.

The ED has the opportunity to impact sepsis care as 57% of the patients are admitted from our ED. Timely treatment is critical.

The purpose of this project as challenged by The Ohio Hospital Association is to decrease the incidence and mortality of Sepsis by 30% over a 2 year period.



DESIGN

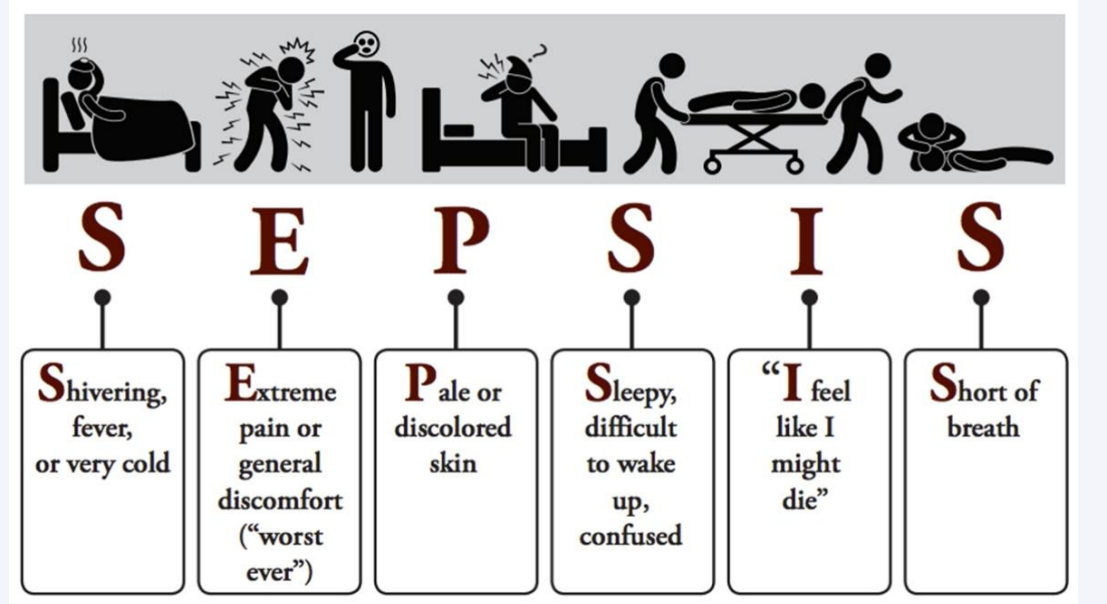
This quality improvement project included the formation of a multi-disciplinary team. Initial baseline data was collected and education deployed to include a sepsis triage protocol, and the 3 and 6 hour sepsis bundle. A sepsis checklist was developed and deployed to increase bundle compliance.

SETTING

The project was conducted at a rural 232 bed acute care, non profit teaching hospital in southern Ohio with a 43 bed emergency department that has an annual volume of 48,000 patient visits

PARTICIPANTS

The study population for the project was all patients treated in the ED and admitted with severe sepsis and septic shock.



Sepsis Bundle

- Lactate
- Blood Culture
- Broad-spectrum Antibiotic
- Crystalloid IV
- Repeat Lactate
- Vasopressors
- Volume Assessment

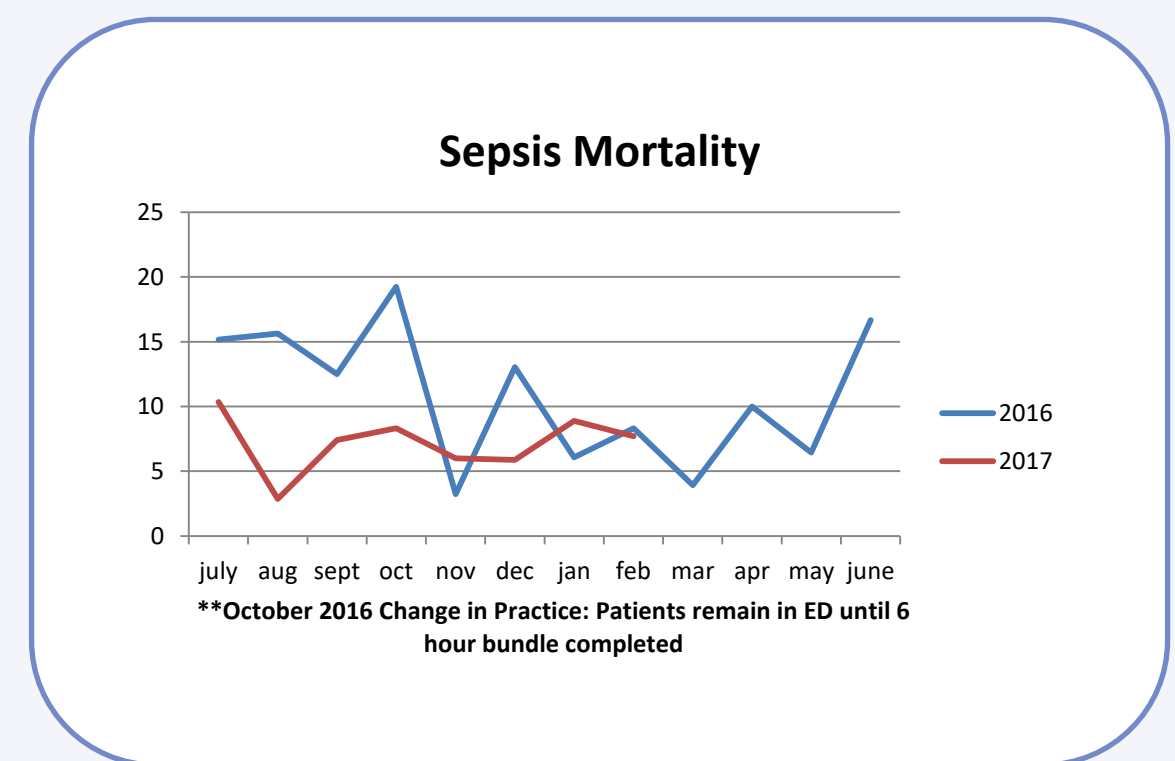
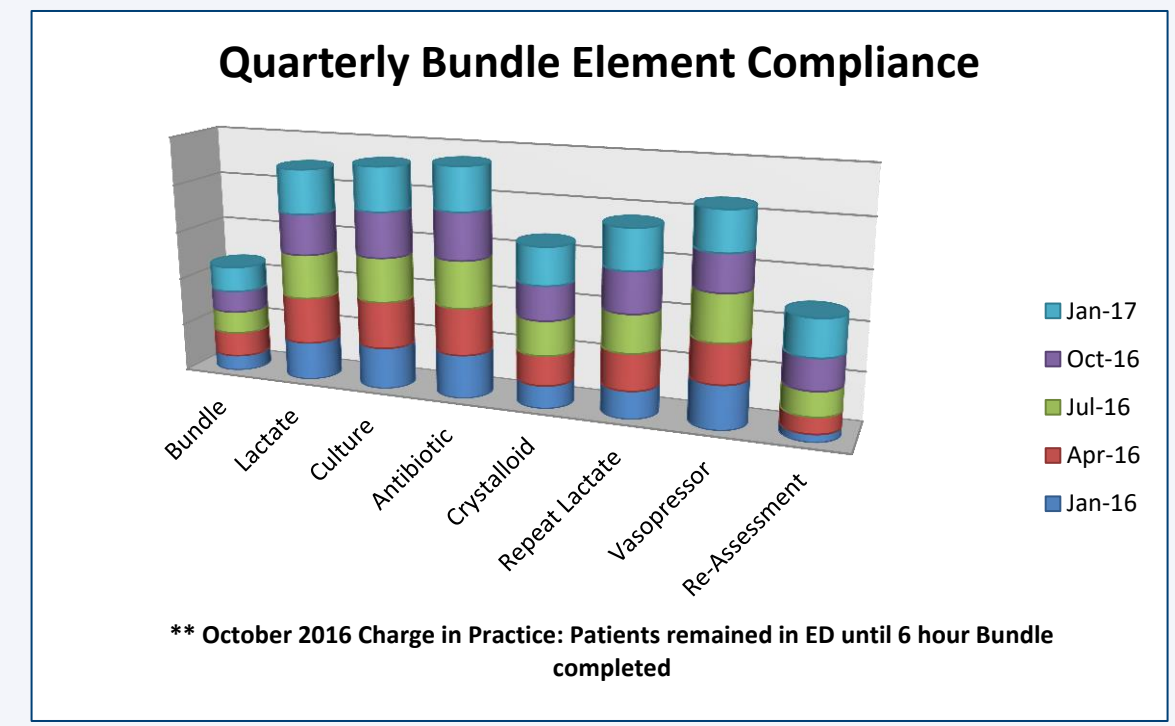
METHODS

The sepsis triage screening tool and the sepsis checklist were used to increase compliance with patient identification and early goal directed bundle compliance. The checklist provided reminders for the staff on the primary gaps identified in the three hour bundle of crystalloid fluid calculations and repeat lactate levels.

RESULTS/OUTCOMES

The initial base line data was a review of cases from January through June 2015 and the overall three hour bundle compliance was 52%. Mortality was 15%. From July 2015 to March 2017, the three hour bundle compliance increased to 90%. SOMC mortality decreased to 10%.

The statewide initiative continues in Ohio with a 9.7% reduction in mortality.



IMPLICATIONS

A program using the EBP sepsis bundle can improve patient care and decrease mortality. On-going nurse and provider education supported by a multi-disciplinary team with ED and inpatient collaboration is critical for accomplishing sepsis care.

REFERENCES

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