Doubling Down on Sepsis: A Quality Improvement Project to Improve Sepsis Bundle Compliance on an Inpatient Oncology Unit

Date: July 7, 2022
Time: 8:00 a.m. to 8:35 a.m.
Place: 219B SCCB

Abstract

Problem: Sepsis is a leading cause of death worldwide, and the second most common cause of death in cancer patients. Early management of sepsis through use of sepsis bundles have been shown to improve patient outcomes, yet bundle adherence is unfortunately inconsistent.

Methods: A two-nurse team, called the Sepsis Sidekicks, was a process improvement initiative to increase compliance with the center for Medicare and Medicaid Services (CMS) sepsis bundle and improve patient outcomes related to sepsis. The observational quality improvement project utilized a Plan-Do-Study-Act (PDSA) model over a six-week period where quantitative data was collected using a retrospective chart review. A convenience sample of adult hematological cancer patients, age 18 years and older, being evaluated for sepsis or neutropenic fever on an inpatient cancer ward were selected.

Results: Of the 33 instances where Sepsis Sidekicks was utilized in the 6-week period, twenty-one (n = 21) cases met inclusion criteria. The post-intervention group who utilized Sepsis Sidekicks saw a total compliance rate of 61.9%, a significant increase from the pre-intervention total compliance rate of 7.7% ($\chi^2 = 9.743, \text{df} = 1, p = 0.002$). Compliance with individual bundle components was unchanged for blood cultures and serum lactate, however, significant improvement was seen in antibiotic administration ($p = .002$). Additionally, 92.6% of nurses felt that Sepsis Sidekicks improved efficiency in completing the 1-hour sepsis bundle.

Implications for practice: Sepsis Sidekicks improves sepsis-bundle compliance rates and is effective at reducing time to antibiotic administration. From a nursing perspective, teamwork improved efficiency by expediting the process. Further study is recommended to improve the sepsis work-up on inpatient oncology wards, especially as it pertains to new admissions and timely antibiotic administration.