Improving Emergency Department Sepsis Bundle Compliance: A Quality Improvement Project

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Abstract

**Background:** The Swedish Edmonds Emergency Department has reduced compliance with the Surviving Sepsis healthcare bundle. CMS uses this bundle to determine quality of care, which determines hospital reimbursement.

**Local Problem:** Swedish Edmonds Emergency Department has suboptimal compliance rates with the IV fluid bolus and three-hour bundle components despite past efforts. This is associated with decreased reimbursement.

**Purpose:** The purpose of this quality improvement project was to implement an evidence-based, electronic health record checklist to improve compliance with CMS guidelines in the care for septic patients.

**Methods:** This quality improvement project will utilize the PDSA model of quality improvement to improve sepsis bundle compliance. Additionally, Prochaska’s Transtheoretical Model of Change will assess readiness for organizational change.

**Intervention:** Nursing staff was educated on the use of an EHR based checklist tool to increase compliance rates. A chart review was performed to identify rates of compliance in the pre-intervention and post-intervention groups to assess for changes. Additionally, a qualitative survey was used both pre- and post-intervention to assess understanding of sepsis and identify areas of improvement.

**Results:** The IV fluid bolus compliance rates improved from 79.8% to 90.1% after the intervention. Additionally, the three hour bundle compliance rate increased from 63% to 76.5%. The qualitative survey shows increased staff awareness of both organizational and CMS standards of care.
**Conclusion:** The use of the Sepsis Checklist intervention was associated with higher rates of compliance with CMS Surviving Sepsis Guidelines. Additionally, information from the caregiver surveys provided feedback for future improvements.

**Keywords:** Sepsis, Surviving Sepsis, Checklist, Electronic Checklist, Sepsis Bundle