

Early Sepsis Recognition and Improvement in Core Measure Compliance

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Abstract / Background

Sepsis is life-threatening organ dysfunction caused by dysregulated host response to bacterial infection that carries a 30% mortality¹. Early identification and evidence-based management of sepsis patients improves outcomes and reduces mortality. Healthcare systems have been challenged to balance competing guidelines of the Surviving Sepsis Campaign and the Core Measure Bundle to improve overall care of sepsis patients. The work of an interdisciplinary team focused on:

- Improving care and outcomes via compliance with sepsis bundle components
 - Utilizing IT resources to transition from paper tools to electronic: Sepsis Time Zero Alert, Core Measure Checklist and Physician Documentation tab, and Sepsis Bundle Compliance report.
 - Capitalizing on the knowledge, experience, and enthusiasm of staff to create the Sepsis Champion role
- Sepsis bundle compliance increased from a low of 37% in 2018 to our most recent quarter of 66.4%. Our most recent month in March 2022 was 78%. Readmissions improved from 14.9% baseline to 12.9%. Mortality decreased from 0.92 observed over the expected baseline to 0.86 our most recent quarter.

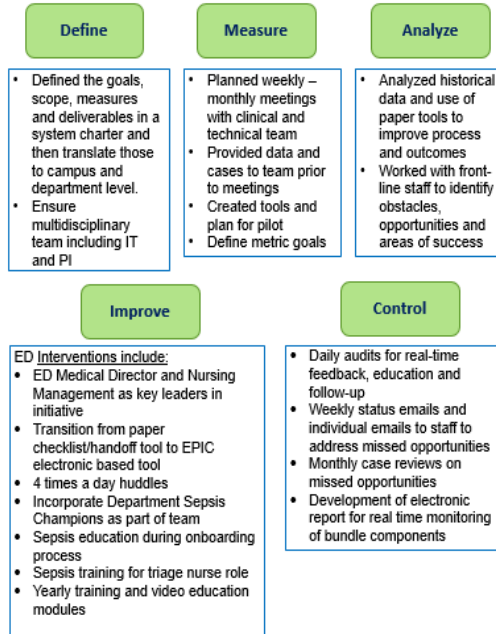
Goals

- Improve early identification of sepsis and to standardize care.
- Improve our Core Measure Bundle compliance and communication between team members by using electronic tools, order-sets, reports, and ongoing education.
- Empower ED physician and nurse caregivers as change agents for bundle compliance and overall sepsis care.
- Improving readmissions and mortality.

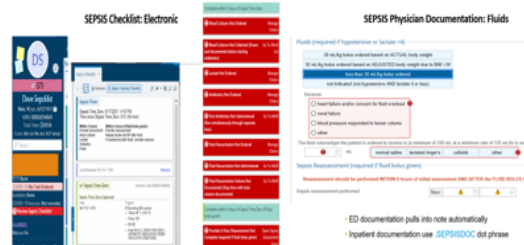
References

- Andrew J. Brent. Sepsis, *Medicine*, Volume 45, Issue 10, 2017, Pages 649-653, ISSN 1357-3039, <https://doi.org/10.1018/j.mpmed.2017.07.010>.
- Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021, *Critical Care Medicine*: November 2021 - Volume 49 - Issue 11 - p e1063-e1143 doi: 10.1097/CCM.0000000000005337

DMAIC framework



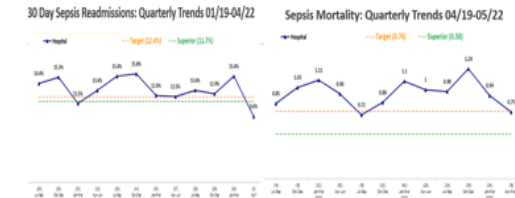
Tools



Daily SEPSIS Bundle Report

The screenshot shows a dashboard with a table of patient data. The table has columns for patient name, room number, and various bundle components (e.g., Time Zero Alert, Core Measure Checklist, Physician Documentation). The data is organized by date and includes compliance percentages for each component.

Results



CMS Sepsis Bundle Compliance: 2018-6/2022



Next Steps

- Correct "suspect Covid order" to ensure integrity of data
- Expand the use of all tools to inpatient departments
- Further explore healthcare disparity in relation to campus readmissions and mortality
- Partner with system homecare services regarding home with homecare initiatives for our sepsis survivors and their families.