Providence

Providence Nursing Professional Practice Model

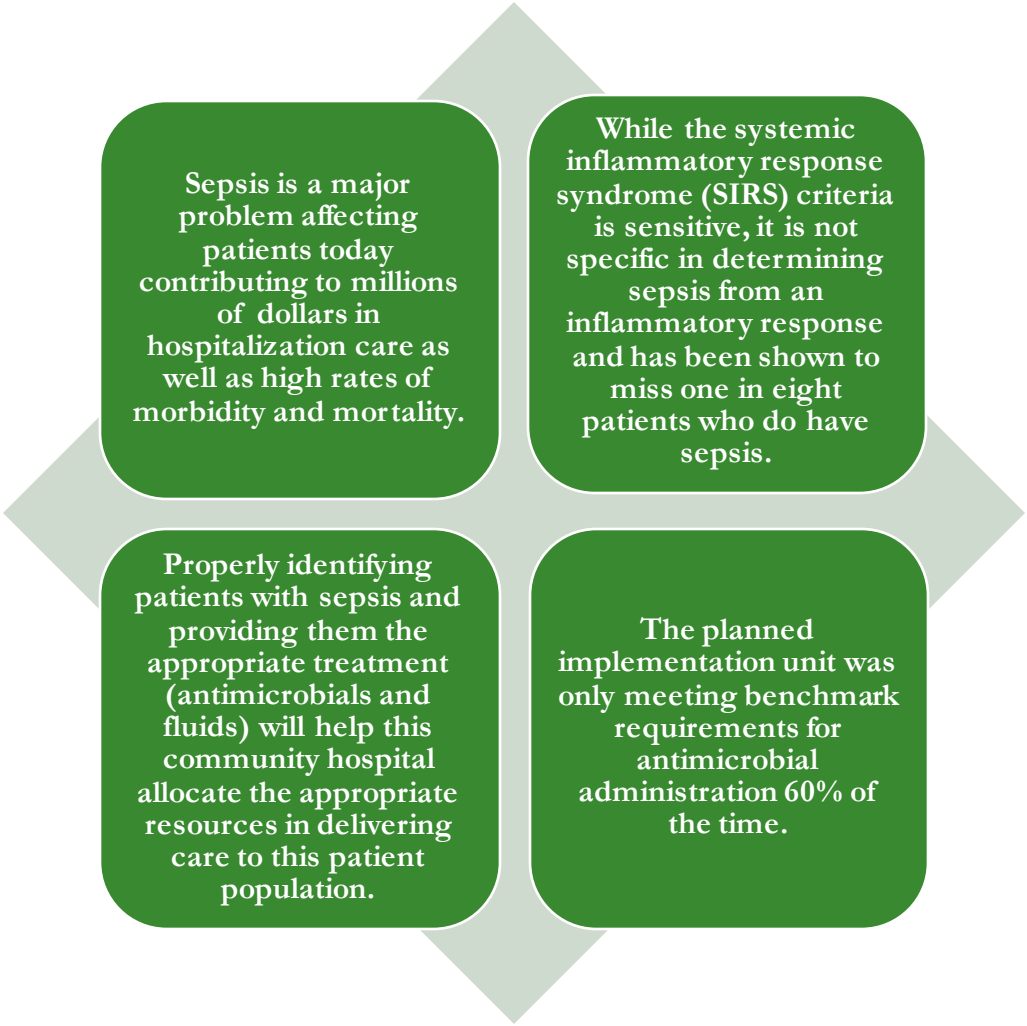
Providence System Nurse Research and Clinical Scholarship Symposium 2024

Clinical Inquiry: The Catalyst to Nursing Excellence

Managing Sepsis with qSOFA

Jeana Rockette Adams, DNP, RN, CCRN, TCRN
Providence Holy Cross Medical Center

Background and Problem Statement

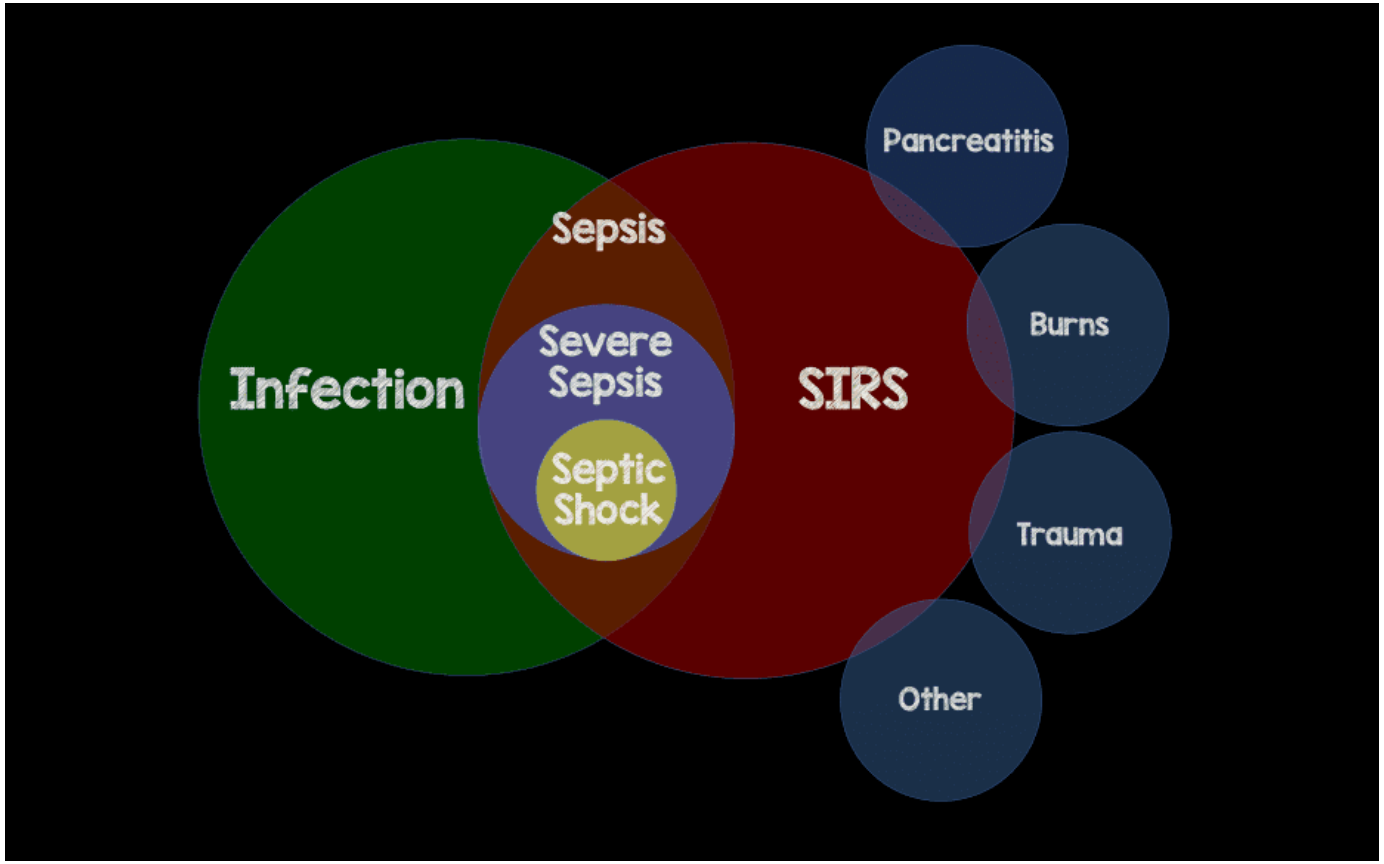


Clinical Question and Project Aims

Among sepsis patients in an acute care facility on the Neurological/Telemetry Unit, does addition of the quick Sequential Organ Failure Assessment (qSOFA) influence sepsis recognition when compared to the Systemic Inflammatory Response Syndrome (SIRS) criteria alone?

Measurable Outcomes

Antimicrobial administration time from the time sepsis criteria had been met before and compared with after project implementation



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Inclusion and Exclusion Criteria

Inclusion Criteria

- Adult (>18 years of age)
- Inpatient (implementation unit)
- Meet sepsis criteria

Exclusion Criteria

- Minor (<18 years of age)
- ED patients prior to admission status, ICU patients, patients admitted to floors other than the implementation unit
- Non-septic, don't meet SIRS criteria

Methods

- Quality improvement pre-post intervention project.
- Goal to help nurses recognize sepsis earlier and administer antimicrobials sooner.
- Nurses were educated on how to find and interpret the qSOFA as an additional strategy to using SIRS criteria.

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Methods

SIRS Criteria

Temperature >38° C (100.4° F) or <36° C (96.8° F)

Heart rate > 90

Respiratory rate >20 or $PaCO_2$ <32 mm Hg

WBC >12,000/mm^3 or <4,000/mm^3 or >10% bands

Analysis of Data

- **Aim: To compare average time to antimicrobial administration in sepsis patients from before to after project implementation.**

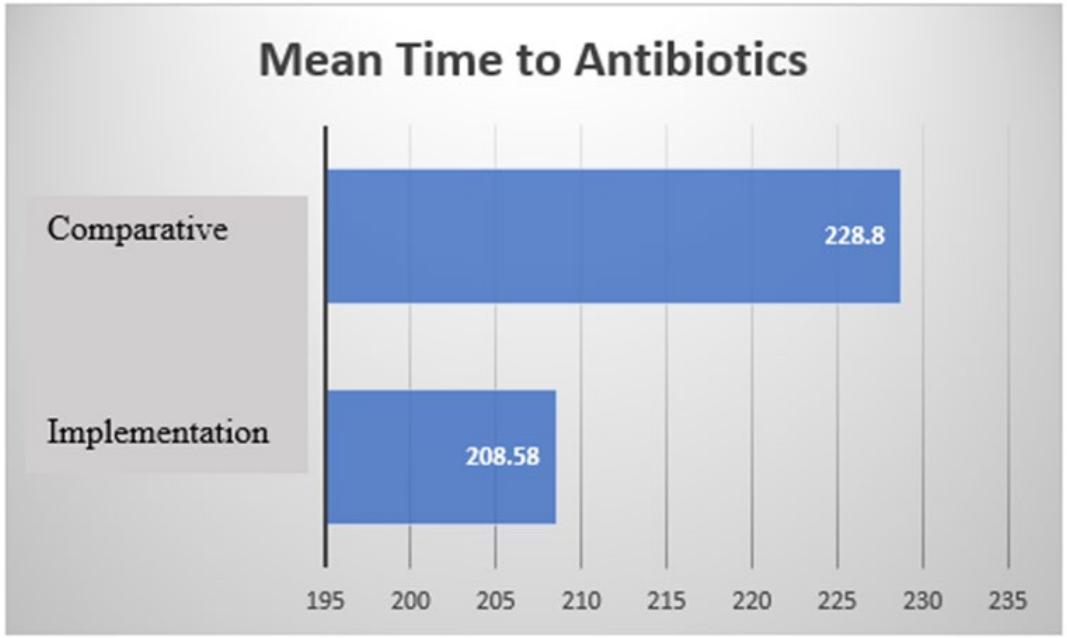
- Data were extracted from the electronic health record. The times to antimicrobial administration were averaged.
- An independent *t*-test was used to evaluate the data.

Findings

- Statistical Significance
  - $t(14) = -.133$, $p=0.896$

- Clinical significance was determined by evaluating an 8.84% improvement in antimicrobial administration time.

Discussion



Descriptive Statistics – Antimicrobial Administration Time (minutes)					
	N	Minimum	Maximum	Mean	SD
Comparative	7	10	788	228.4	318.9
Implementation	13	8	915	208.58	257.6

Clinical Implications

- Early sepsis recognition
  - SIRS
  - qSOFA
- Next steps

Questions?

jeana.miller@providence.org

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