



Sepsis Burden Report – Reference Document

Purpose

Given the high prevalence, cost, and mortality of sepsis, and growing federal attention on sepsis such as the recent inclusion of the SEP-1 core measure into the Hospital Value Based Purchasing program, THA has prepared this report to aide hospitals in evaluating their local sepsis burden and determining if they are allocating appropriate resources to manage it for optimal outcomes.

Understanding the Data

The data for this report is drawn from administrative claims.

Data populations definitions:

- **Sepsis population:** adult inpatients, aged 18-89 years, with a primary or secondary discharge diagnosis of sepsis from the list of diagnosis codes used by CMS for the SEP-1 core measure, excluding cases with a COVID diagnosis. There are no other exclusions or risk adjustments.
- **Total population:** adult inpatients aged 18-89 years with any diagnosis, excluding cases with a COVID diagnosis. There are no other exclusions or risk adjustments.

Sepsis measures definitions:

- **What percent of total adult inpatient volume is for sepsis?**
 - Denominator: Total population
 - Numerator: Sepsis population
- **What percent of adult inpatient costs are for sepsis patients?**
 - Denominator: Total population costs
 - Numerator: Sepsis population costs
- **What percent of adult in-hospital mortalities have a sepsis diagnosis?**
 - Denominator: Total population mortalities
 - Numerator: Sepsis population mortalities
- **What percent of adult 30-day readmissions are for sepsis?**
 - Denominator: Total readmitted population
 - Numerator: Total readmitted population with a diagnosis of sepsis
- **Sepsis Inpatient Point of Origin**
 - Point of origins for sepsis population
- **Sepsis Severity on Arrival**
 - Sepsis severity on arrival for sepsis population (community onset)

Considerations for Report Results Analysis

The following considerations for results analysis were developed with input from members of the THA Sepsis Collaborative.

Sepsis Measure	Possible Reasons for Differences Between Hospital and State
Adult inpatient volume for sepsis	<ul style="list-style-type: none"> • Age and health status of communities served • Sepsis patient transfer patterns • Hospital performance with sepsis recognition and diagnosis
Adult inpatient costs for sepsis	<ul style="list-style-type: none"> • Patient severity of sepsis • Patient comorbid conditions • Availability of post-acute care services • Patient social factors and support that impact length of stay • Hospital performance with sepsis recognition and treatment
Adult inpatient mortalities for sepsis	<ul style="list-style-type: none"> • Patient age and comorbid conditions • Sepsis patient transfer patterns • Patient severity of sepsis • Quality of sepsis care • Availability and quality of EMS services • Community knowledge of sepsis • Utilization of palliative care/hospice
Adult inpatient 30-day readmissions for sepsis	<ul style="list-style-type: none"> • Patient age and medical complexity • Patient social factors and support • Utilization of post-acute care services • Patient development of post-sepsis syndrome • Post-discharge development of sepsis following hospitalization for an infection or other at-risk health condition
Sepsis patient point of origin	<ul style="list-style-type: none"> • Sepsis patient transfer patterns • Ability of post-acute care providers to provide sepsis care in situ • Community knowledge of sepsis • Availability and access to community healthcare providers
Severity of sepsis on arrival	<ul style="list-style-type: none"> • Patient distance to care • Sepsis patient transfer patterns • Community knowledge of sepsis • Patient financial and health insurance status • Cultural or social influences regarding seeking medical care • Availability and quality of EMS services

Resources

The following resources will aide hospitals in developing a strong sepsis program:

- [Hospital Sepsis Program Core Elements | Sepsis | CDC](#)
- [Surviving Sepsis Campaign Guidelines 2021 | SCCM](#)