



Treating Sepsis in a World of Value-Based Care

A recent study indicates that **the incidence of sepsis among hospitalized patients is increasing by 8.7% per year.**¹ Due to the severity of the condition, these patients are at a high risk of returning to an acute care setting to receive the appropriate clinical treatment.

To improve patient outcomes and decrease the possibility of costly readmissions for this at-risk population, providers should not only continue to enhance their internal clinical capabilities but also team with post-acute partners with expertise in treating sepsis.

In this whitepaper, we outline the latest statistics and resources regarding sepsis and the post-acute strategies providers should consider to enhance outcomes for this critical population.



The Sepsis Crisis

Sepsis is a major problem. Here is what we know:

- Between 750,000 and 1.7 million Americans develop sepsis each year.^{2,3}
- The sepsis mortality rate is between 25-35%, meaning more than 270,000 people die from sepsis each year.³
- Sepsis accounts for more than 50% of hospital deaths.¹
- Mortality increases dramatically with greater disease severity: 10–20% for sepsis, 20–40% for severe sepsis, and 40–80% for septic shock.¹
- In a global study, sepsis was identified during the ICU stay in 29.5% patients, including 18.0% who exhibited sepsis at ICU admission.⁴
- Sepsis is very expensive to treat, with an annual price tag of approximately \$17 billion.²
- Sepsis readmissions cost the U.S. more than \$3.5 billion per year, or an average of \$16,852 per readmission, according to a study published in March 2019 in *Chest Journal*. For reference, the annual readmission cost for the four conditions Medicare's Hospital Readmissions Reduction Program aims to reduce — acute myocardial infarction, congestive heart failure, COPD and pneumonia — is \$7 billion combined.⁵

The incidence of sepsis among hospitalized patients is increasing by **8.7% per year**

Sepsis readmissions cost the U.S. more than **\$3.5 billion** per year



that's an average of **\$16,852** per readmission

Innovative treatments and care strategies are required to combat the growing impact of sepsis, especially in light of healthcare's continued push toward value-based care, which puts heightened pressure on managing total care costs and readmission rates.

To that end, this focus on reducing readmissions and total cost of care highlights the need for those in charge of discharge and placement after a hospital stay to accurately determine the most clinically appropriate post-acute setting for each unique patient.

Resources and Case Studies to Help Improve Sepsis Outcomes

To combat the growing rate of sepsis in hospitalized patients, providers should evaluate how this critical population is cared for. Fortunately, there are several existing resources providers can use as a base to build their own protocols:

- **The Surviving Sepsis Campaign Bundle 2018 Update:** The Surviving Sepsis Campaign launched a new one-hour bundle for sepsis patient management that outlines the most critical steps to take within the first hour of sepsis identification.⁶
- **The Sepsis CVR Starter Kit:** This kit can help providers build a successful sepsis care variation reduction (CVR) strategy, including tips on governance and care standard design resources.⁷
- **Ten Imperatives to Reduce Sepsis Mortality:** Check out this online list from The Advisory Board for ways to build a system of care that promotes early identification, coordinates care team responsibilities and delivers timely treatment for every sepsis patient.⁸

- **The Journal of the American Medical Association – findings on New York's "Rory's Regulation":** The recent findings of a multi-year study attributes a drop in sepsis mortality rates in the state of New York since the law was enacted to three practices:⁹
 - More patients receiving evidence-based sepsis care, including early antibiotics and resuscitation
 - Hospital staff across the state being educated on how to recognize and treat sepsis
 - Healthcare professionals statewide paying closer attention to sepsis

By identifying areas for improvement, many hospitals have been able to improve their sepsis mortality rates through enhanced early identification and streamlined treatment processes.

The Clinical Benefits of LTACs in Treating Sepsis: Reducing Readmissions

In addition to looking internally, providers should seek post-acute partners who are capable of identifying and treating at-risk sepsis patients in order to avoid costly hospital readmissions. Long-term acute care hospitals are the most clinically appropriate post-acute setting for treating sepsis because of the condition's severity and the hospital's capabilities.

Sepsis must be treated in a hospital setting and long-term acute care (LTAC) hospitals are well equipped to both identify and treat sepsis. Because LTAC hospitals have the same licensure and accreditation as acute care hospitals, they are clinically capable of treating septic patients, thereby avoiding readmission. In contrast, if a high acuity patient is discharged directly to a skilled nursing facility and then requires sepsis treatment, the patient would need to readmit to the hospital setting for care.

While LTAC hospitals provide care for a very high-acuity niche patient population, they play a vital role in achieving more efficient recovery of patients who have a high risk of readmission due to their clinical complexity. By transitioning these challenging patients to an LTAC hospital, when it is the most appropriate site of care for their needs, a significant portion of financial losses due to readmission penalties for short-term providers can be avoided.



Kindred's Sepsis Program: How Kindred Can Help Your Sepsis Patients

Kindred Hospitals specialize in the post-intensive care treatment of patients with complex medical cases who require continued intensive care and specialized rehabilitation in an acute hospital setting. With daily physician-directed care, ICU- and CCU-level staffing ratios and ACLS-certified nurses, specially trained caregivers, we work to improve outcomes, reduce costly readmissions and help patients transition home or to a lower level of care.

We are committed to pursuing innovations in care delivery and payment models to provide new tools and solutions to our patients and their families as well as to our provider partners. Many of these resources and initiatives are designed to ensure efficient care management for each patient.

One such initiative is our effort to achieve disease-specific certification from The Joint Commission for sepsis in all Kindred Hospitals across the country. The certification recognizes healthcare organizations that provide clinical programs across the continuum of care for sepsis. It evaluates how organizations use clinical outcomes and performance measures to identify opportunities to improve care, as well as to educate and prepare patients and their caregivers for discharge.

We have proven success in treating patients with sepsis. We have already instituted the following sepsis protocol in all of our hospitals:

- A review of every new admission's chart to establish whether or not they qualify for our Sepsis Program.
- An assessment and evaluation at least once every shift of all patients who qualify for our Sepsis Program.
- A robust Sepsis Protocol includes STAT interventions for any patient who screens positive, including blood lactate level and blood cultures run prior to administration of antibiotics.
- An individualized plan of care and creation of interdisciplinary goals for the patient.
- Treatments and therapies based on evaluation of the patient in relation to our assessment of their health.
- Extra care and education for the patients and their families while they are enrolled in the Sepsis Program.

We are committed to continued clinical growth and furthering our expertise in areas of care this population will demand.

To learn more about how Kindred Hospitals can help you achieve enhanced outcomes for your critical patients, visit kindredhospitals.com.

References

1. Paoli CJ, Reynolds MA, Sinha M, Gitlin M, Crouser E. *Epidemiology and Costs of Sepsis in the United States-An Analysis Based on Timing of Diagnosis and Severity Level*. Crit Care Med. 2018;46(12):1889-1897. doi:10.1097/CCM.0000000000003342
2. <https://www.centerfortransforminghealthcare.org/improvement-topics>
3. <https://www.cdc.gov/sepsis/datareports/index.html>
4. Sakr Y, Jaschinski U, Wittebole X, et al. *Sepsis in Intensive Care Unit Patients: Worldwide Data From the Intensive Care over Nations Audit*. Open Forum Infect Dis. 2018;5(12):ofy313. Published 2018 Nov 19. doi:10.1093/ofid/ofy313
5. *Epidemiology and Predictors of 30-Day Readmission in Patients With Sepsis* Gadre, Shruti K. et al. CHEST, Volume 155, Issue 3, 483 – 490
6. <http://www.survivingsepsis.org/SiteCollectionDocuments/Surviving-Sepsis-Campaign-Hour-1-Bundle-2018.pdf>
7. <https://www.advisory.com/research/physician-executive-council/tools/2019/the-sepsis-cvr-starter-kit>
8. <https://www.advisory.com/research/physician-executive-council/studies/2014/ten-imperatives-to-reduce-sepsis-mortality>
9. <https://www.healthleadersmedia.com/clinical-care/new-yorks-sepsis-protocols-lower-death-rates>