Each year, approximately 750,000 noncoronary intensive care unit patients develop severe sepsis and nearly 40 percent of these patients die of complications related to sepsis, making it the leading cause of death in the ICU. Christiana Care’s mortality rate in this population was as high as 61.7 percent.

Staff at Christiana Care set out to improve the care of all sepsis patients receiving treatment in the organization, not just those who received care in the emergency department. They based their initiative on the 2004 Surviving Sepsis Campaign guidelines and made system-wide culture changes. The Sepsis Alert program included care management guidelines; treatment algorithms; order sets; kits with single-dose vials of antibiotics; and multidisciplinary education about sepsis and the importance of prompt, aggressive management.

Achievements

- Reduced the mortality rate for patients with severe sepsis to 30.2 percent in 2006, from 36.7 percent in 2005, and from 61.7 percent in 2004.
- Reduced the average length of hospital stay by 22.3 percent and increased patients discharged to home by 197.2 percent.
- Increased the percentage of patients receiving antibiotic therapy within the first hour before or after issuance of a Sepsis Alert to 97 percent from 86 percent.
- Decreased the average time from emergency department triage to first antibiotic administration to less than two hours from 2.9 hours.
- Increased the number of patients receiving fluid resuscitation to 100 percent from 92 percent.