Improving Sepsis Outcomes with Crimson

Sepsis is one of the most dangerous and difficult to treat conditions in health care today. It exacts a toll on hospitals measured in prolonged stays and intensive care needs, while contributing to about a third of in-hospital deaths. There are nine key opportunities where your sepsis task force can improve outcomes—and Crimson can help.

Rapid Treatment

Failure to administer the sepsis bundle within six hours worsens prognosis—mortality increases 7.6% for every hour of antimicrobial delay.

**Order Lactate with Blood Culture**

**Opportunity**

Guidelines recommend drawing lactate and blood cultures within six hours of a positive screen. Many sepsis patients don’t have lactate tested within 24 hours of a blood culture.

**What to Do**

Increase lactate testing with order sets, EMR prompts, or sepsis packets. Enable nurses to practice at the top of license and order lactates directly.

**Crimson Connection**

Monitor compliance with sepsis guidelines including labs, antibiotics, vasopressors, and transfusions.

REDUCE ICU LENGTH OF STAY

**Opportunity**

Overuse of the ICU contributes to an average cost per sepsis case of $18,900. Early intervention protocols can minimize time in the ICU, reducing costs.

**What to Do**

Hold clinicians accountable for executing the sepsis bundle within the critical time window, and create clear protocols for transitioning acute patients to the ICU.

**Crimson Connection**

Work with your Dedicated Advisor to run an ICU-specific report for your sepsis population.

Re-evaluate Vasopressor Guideline

**Opportunity**

Dopamine use in septic shock may cause more frequent cardiac events. The wide variation in its use suggests opportunity to improve outcomes.

**What to Do**

Ask critical care physicians to review evidence suggesting increased mortality with dopamine use. Modify guidelines and educate staff.

**Crimson Connection**

Monitor use of dopamine versus norepinephrine and associated mortality rate among septic shock patients.

Early Detection

Sepsis is difficult to recognize, and missed or delayed diagnoses can have tragic consequences, so your triage team must be vigilant.

**Screen Every Emergency Patient**

**Opportunity**

The vast majority of sepsis patients already had sepsis upon admission. ED assessment is the best means to ensure earliest identification.

**What to Do**

Screen universally with simple tools at triage. Assess detection performance by monitoring sepsis admissions per 1,000 ED cases.

**Crimson Connection**

Identify the percentage of patients with a FOA® flag for sepsis ICD-9 codes 995.91, 995.92, and 785.52.

**Prioritize Top Associated Infections**

**Opportunity**

A few common infections—UTI, pneumonia, and abdominal—lead to a majority of sepsis cases. Yet bundle compliance is low in these cases.

**What to Do**

Train frontline staff to rigorously screen patients with suspected pneumonia, urinary tract, and abdominal infections for sepsis.

**Crimson Connection**

Identify most frequent present-on-admission infections documented in sepsis cases. Flag these to ED staff as high risk.

**Recognize Geriatric High-Risk**

Sepsis occurs more often in geriatric patients, yet it’s harder to recognize due to blunted clinical symptoms. With a mortality rate over 45%, every elderly patient is best treated as high-risk.

**What to Do**

Educate staff to better manage index infections like altered mental status. Check for advanced screening in the elderly. Recognize atypical signs like altered mental status.

GLOBAL PREVENTION

Supplement hospital-based prevention with community-based infection control to address the vast majority of sepsis arising outside the hospital.

**Prevent Hospital-Acquired Sepsis**

**Opportunity**

The incidence of hospital-acquired sepsis shows a wide gap between the top and bottom performance quartiles.

**What to Do**

Retain staff in units with low infection-control measure compliance: hand-washing, surgical sterility, antibiotic stewardship, MRSA screening.

**Crimson Connection**

Monitor MRSA infection rates; HACs; SCIP® compliance; antibiotic selection by facility, service-line, and provider.

**Extend Infection Control to the Community**

**Opportunity**

Half of patients admitted with sepsis visited a physician’s office in the preceding 30 days. Poor antimicrobial use or infection control in the office setting could lead to sepsis.

**What to Do**

Educate physician practices on infection control, antibiotic selection, immunization, and sepsis screening to catch more cases upstream.

**Crimson Connection**

Screen universally with simple tools at triage. Assess detection performance by monitoring sepsis admissions per 1,000 ED cases.

**Prevent Readmissions with Sepsis**

Many sepsis admissions are 30-day readmissions or returning ED visits for pneumonia, UTI, etc. Poor antibiotic selection can cause sepsis downstream.

**What to Do**

Train staff to better manage index infections and prevent readmission with sepsis. Review antibiotic protocols and consultation criteria.

**Crimson Connection**

Population Risk Management Identify common events preceding sepsis admission and associated treating providers.