NEWMAN REGIONAL HEALTH

Uses MEDITECH to Transform Sepsis Treatment



In late 2015, sepsis mortality, disability, and healthcare costs pushed this life-threatening condition to the forefront of priorities for US hospitals. The Centers for Medicare and Medicaid Services stepped in, aiming to standardize treatment through evidence-based bundles that could be used as guidelines for clinicians to treat sepsis patients. CMS also began requiring hospitals to track their own performance with sepsis care.

Newman Regional Health (Emporia, KS), a Critical Access Hospital and Level IV Trauma Center in East Central Kansas, understood the need for interventions to identify and treat sepsis early. In response to the CMS

initiative, Newman Regional Health formed a multidisciplinary group of clinicians eager to understand the pathophysiology of sepsis and how to correctly treat it with the CMS-recommended interventions. The healthcare organization's sepsis compliance in October 2015 — before the initiative began — was 33%.

Newman Regional Health's results varied quarter to quarter, despite multiple meetings and in-person follow-ups with clinicians. So, in 2017, its leadership committed to a strategic effort for effective sepsis treatment for all patients. Across Kansas, tertiary hospitals including Newman Regional Health shared information and best practices. Through this collaboration, the organization learned that it was not alone in its challenges related to bundle compliance.

A multidisciplinary approach

To overcome these challenges, Newman Regional Health devised improvement strategies such as clear compliance goals, data presentation, stakeholder engagement, and reviews of sepsis care execution. The hospital pulled from national benchmarks to set compliance percentage goals, and used driver diagrams to identify primary and secondary drivers that would promote and influence change within its system and the community.

AT A GLANCE

Located in East Central Kansas, Newman Regional Health (Emporia, KS) includes a 25-bed, acute care hospital and Newman Medical Plaza, an outpatient facility. It primarily serves the residents of Lyon County and is the state's most clinically capable Critical Access Hospital.



Newman Regional Health was one of only 14 hospitals statewide to receive the Kansas Healthcare Collaborative's "Highest Achievement with Distinction" award, in recognition of their efforts to combat sepsis.

"We used a multidisciplinary approach to incorporating the sepsis toolkit recommendations in Expanse," said Cathy Pimple, the CAO at Newman Regional Health. "Our team consisted of members from lab, pharmacy, nursing, providers, informatics and quality. Ironically though, we started this build and had most of it incorporated into our MAGIC system in 2016. When we went LIVE with Expanse, we simply rebuilt what we knew was already working, and added the Surveillance components to complete the package. This process continues to work well for our organization."

Screening assessments and order sets

Newman Regional Health included sepsis screening assessments in Emergency Department Management, Surgical Services, and Patient Care and Patient Safety. A Surveillance indicator that correlates to sepsis risk appears on these solutions' status boards and trackers. In Patient Care and Patient Safety, the Sepsis Risk Assessment is completed at least once every shift.

In the emergency department, providers choose from two order sets, depending on whether the patient presents with sepsis or the patient becomes septic while in the ED. On the inpatient side, providers can choose from a sepsis 6-hour bundle order set, a sepsis antibiotic protocol order set, and a lactic acid order set. Antibiotics, whether embedded within the order set or added to the order set, are categorized by source of infection.

To better serve its patients, Newman Regional Health attached a sepsis nurse protocol to the sepsis screening intervention. A positive sepsis screening will reflex order the appropriate order set. In addition, the hospital created a sepsis reevaluation template for providers, which includes an exam, lactic acid results, and an assessment/ plan comment box. Canned text states that the antibiotic was dosed based on the patient's ideal body weight.

Staff education

A small group of sepsis nurse champions drove the initiative. Their responsibilities included developing policy; reviewing all sepsis cases; facilitating workflow, documentation, and order set changes; and educating staff. These sepsis champions, with support from a handful of superusers, focused on educating nurses and providers via email, face-to-face communication, elbow support, and just-in-time education. In addition, a peer review process helped identify opportunities for improvement.

Community-wide efforts

Public knowledge of sepsis continues to fall short. According to the Sepsis Alliance, only 17% of Americans can identify sepsis symptoms. To increase community awareness, Newman Regional Health used multiple media modalities. These included increased education among its own staff (550+ employees), published articles in The Emporia Gazette, radio advertisements, on-air interviews, and print advertisements.

The organization also broadened its focus by collaborating with emergency medical services and local nursing homes on the early identification and treatment of sepsis. Together, Newman Regional Health clinicians, EMTs, and nursing home RNs prepared quarterly sepsis case reviews. Patient-sensitive information was redacted, allowing for staff to discuss how to better care for sepsis patients in the community.

Recognition for patient safety

Following these strategies, Newman Regional Health was able to consistently increase compliance. The process has worked very well for the organization and currently, its year-to-date sepsis compliance is 85.2%.

Newman Regional Health was recognized recently for its accomplishments in patient safety improvement. The healthcare organization was one of only 14 hospitals statewide to receive the "Highest Achievement with Distinction" award from the Kansas Healthcare Collaborative, a nonprofit organization that focuses on healthcare quality improvement.

