**Background**

Kennedy Health is an integrated health delivery system with hospital-centered campuses in Cherry Hill, Stratford and Washington Township, N.J. With more than 4,000 employees and nearly 1,000 medical staff members, Kennedy health offers inpatient and ambulatory services to residents of Camden, Gloucester and parts of Burlington Counties.

**Quality Initiative**

Develop a system-wide approach to improve sepsis care and patient outcomes.

**Results**

Education, collaboration and compliance resulted in 130.4 lives saved and a mortality rate of 11.88 percent, a decrease of 6.03 percent from 2012 when the initiative was first implemented. (2014: 11.88%; 2013: 13.36%; 2012:17.91%).

Contact Information

Cindy Hou, DO, Infectious Disease Physician and Physician Chair, Sepsis on the Floors Task Force.

Marianne Kraemer, RN, Chief Nursing Officer, Kennedy University Hospital – Stratford; Nursing Leader, Kennedy Health Sepsis Committee and Sepsis on the Floors Task Force.

Henry Schuitema, DO, System Section Head Emergency Medicine, Stratford Campus Medical Director.

**The Initiative**

In 2012, Kennedy Health’s multidisciplinary sepsis committee, chaired by Henry Schuitema, DO, system section head emergency medicine, Stratford Campus Medical Director, and Marianne Kraemer, chief nursing officer, Kennedy University Hospital—Stratford, nursing leaders, Kennedy Health sepsis committee and sepsis on the floors taskforce, began an initiative to improve the sepsis rate in its emergency departments and intensive care units. [Sepsis bundles](http://www.survivingsepsis.org/Bundles/Pages/default.aspx) were introduced and education was provided. The committee was charged with reviewing sepsis cases and achieving 100 percent adherence to bundle compliance, testing changes along the way to achieve its goals.

The committee includes members from all aspects of the organization, including: ED, pulmonary /critical care/infectious disease physicians, ED/ICU nursing, quality, laboratory, pharmacy, performance improvement staffs, along with physician and nursing champions. In mid-2014, after achieving much success in the emergency department and intensive care units, the committee began to look at sepsis on the inpatient units.

Through review of the data, the group was surprised to discover that the survival rate for patients was lower if sepsis was acquired in the hospital. It was time to improve compliance and decrease mortality rates among medical/surgical patients -- so the “Sepsis on the Floors” Task Force was created.

Cindy Hou, DO, infectious disease physician and physician chair, sepsis on the floors taskforce, took the challenge of using lessons learned from the ICU-ED sepsis work to the general

 inpatient population. She and Marianne Kraemer initiated the sepsis on the floors task force in July 2014. Members include: clinical nurses, nurse aides, critical care intensivists, critical care fellows, microbiology lab and performance improvement staff.

The goals of this task force are:

* Decrease mortality due to hospital-acquired sepsis;
* Improve recognition of sepsis, severe sepsis and septic shock in general, with respect to hospital-acquired sepsis;
* Provide evidence-based care;
* Promote nurse-driven lactic acid policy;
* Foster collaboration amongst registered nurses and medical staff; and
* Educate with joint registered nurses and physician lectures.



In January 2015, with the support of Kennedy President and CEO Joseph Devine, they began working with the New Jersey Hospital Association’s Institute for Quality and Patient Safety’s Sepsis Learning-Action collaborative. By the end of 2015, the goals of the collaborative state that all participants will:

* Implement sepsis early recognition screening and standardized sepsis treatment protocols.
* Reduce severe sepsis mortality rates in New Jersey by 20 percent (New Jersey’s statewide severe sepsis mortality rate is nearly 30 percent).

The taskforce educates members of Kennedy Health staff about sepsis and empowers frontline caregivers to identify early sepsis and anticipate implementation of bundle elements. Education includes: early sepsis recognition; review of signage; and bundle courses. Participants review what sepsis is, the stages of onset and the components of the bundle.

The task force also provides individual feedback and on-demand learning to tailor the sepsis course to reach the most caregivers. As of September, 200 members of Kennedy’s nursing staff have attended the course. The task force holds regular meetings via WebEx to the other campuses. The task force’s meetings include review of current literature, best practices, as well as review of Kennedy’s data results.

After implementing the sepsis bundle on the medical/surgical floors and reviewing the data, the taskforce conducted a “deep dive” into the cases that were not compliant with the bundle process. To find out why, the task force conducted a *plan-do-study-act* cycle on process. It was determined that nursing staff weren’t getting timely orders for lactate tests and sepsis wasn’t being discovered until later stages. This resulted in the nurse-initiated lactic acid policy, where, if a patient is showing signs of two of systemic inflammatory response syndrome and a source of infection, the nursing staff may draw a lactate test without waiting for a physician order.

The task force developed other procedures for severe sepsis and septic shock. After reviewing the data and identifying the process breakdowns, the team applied the PDSA cycle to look for areas of improvement. There is always input from frontline staff for lessons learned moments. This type of continuous improvement cycle does several things. First and foremost, the patient receives excellent care. “It’s all about the patient, not the caregiver,” explains Kraemer. “We focus on the lessons learned and nothing is punitive. The idea is to set processes and then get better at them.”

Second, the caregivers are empowered and this brings about a culture change that gets hard wired into all caregiver work. “It is our belief that we can always be better and we consistently strive to do so,” says Hou. “This instills a sense of commitment at every level in the organization.”

**Results**

Kennedy Health’s sepsis program is extremely successful. To date, 93.9 percent of cases meet the 3-hour bundle compliance (state average = 49.9 percent). Additionally, the health system estimates 130.4 lives have been saved and its mortality rate is 11.88 percent.



**Keys to Success**

Hou and Kraemer think this model is easily sustainable and easy to replicate in other organizations because it’s systematic, continuously improved based on input from those using it and constantly measured and tracked. All health system staff are engaged because they see the progress and understand how it positively impacts patients. Frontline staff are empowered because they can apply evidence-based protocols to immediately help their patients. Kennedy Health’s sepsis program is a shining example of how health systems are striving for the Triple Aim—better patient care, reduced costs per capita and improved population health.