By the Numbers:

Parkwest Uses Data to Redefine Delivery

For Parkwest Medical Center in Knoxville, participation in the Tennessee Surgical Quality Collaborative (TSQC) has provided invaluable data that allows the care team and quality leaders to continually monitor, refine, and improve processes.

"The data shows us true outcomes for patients," said Cathy Glenn, RN, the surgical clinical reviewer (SCR) for Parkwest, which is part of Covenant Health. "It shows us how the patients are doing … not how we think they are doing. It's given us a valuable tool to change the way we look at our processes and address our surgical quality initiatives."

Will Gibson, MD, is Parkwest's surgeon champion and a major driver behind the hospital's participation in TSQC and the larger National Surgical Quality Improvement Program (NSQIP). He said Parkwest signed on in 2009 as part of the early cohort of 10 hospitals because the medical center recognized the innate value of better understanding their own outcomes in the larger context of outcomes across Tennessee.

Parkwest Medical Center in Knoxville

"We've got good data now going back about seven years, which is really important because it gives you a reliable history of your own outcome measures. You can really establish reliable trends," he noted, adding those trends engender confidence in what has proven to work well and highlight areas where there are continuing opportunities.

Patient-Centered Process Improvement

Glenn said the collaborative provides quality data across a spectrum of key outcome measures ranging from wound and respiratory occurrences to renal failure and readmissions. More importantly, TSQC offers interventions to improve that data. One example, she noted, is the I COUGH protocol, which was developed by Boston University School of Medicine to reduce post-operative pneumonia.

"It was very timely for us," Glenn said of TSQC's launch of the protocol. "We had been doing pretty well, but right before the initiative started, our numbers began inching up. Our numbers are coming back down since we've used some of the tools from the collaborative."

Even when hospitals enjoy success in a given outcome area, there is most always room for improvement. Gibson, along with Barbara Martin, RN, of Vanderbilt University Medical Center, and Chris Clarke, RN with the Tennessee Hospital Association, established a colon bundle initiative for TSQC to address surgical site infections. While Parkwest wasn't experiencing issues when it came to colon SSI, Glenn noted, "The bundle was still beneficial because it made us look at our processes and improving them for our patients. It was minor things we needed to fix, but they were brought to light when we implemented the colon bundle.

"For instance," she continued, "we found we were not keeping our patients warm enough during surgery. Patients were coming to the surgical suite already compromised in terms of temperature." Glenn said the hospital had Bair Hugger warming blankets in place pre-operatively but because patients complained of being too warm, the blankets weren't always turned on. Staff and patient education, in conjunction with an added protocol step to flip the switch, took care of the issue.

Strength in Numbers

With 21 participating hospitals and health systems representing well over half the state's volume of general and vascular surgeries, Gibson noted, "Our group is big enough to have some authority and to have a reliable impression in terms of what's going on in Tennessee … but at the same time, it's small enough that we all know each other and meet quarterly to share experiences. It's created valuable relationships, as well."

Glenn concurred. "For me, as an SCR, it's been invaluable to have the resources from people like Barbara Martin at Vanderbilt. To have the opportunity to be with other SCRs who are more experienced and to let them share what has worked for them and what hasn't has saved so much time," she said. Glenn was also quick to credit Bill Cecil, the THA statistician who helps make sense of all the collected information. "He's been invaluable to help me understand the data when it comes back … what all the numbers mean … and in how to present it to our various audiences so they understand what it means, too."

TSQC also provides a collegial outlet to discuss challenges and potential solutions. Gibson said the collaborative allows surgeons to see others struggling with similar areas and to tap into the expertise of high performers. "We definitely capitalize on our success stories," he said.

Calculated Risk

Another area where TSQC provides 'strength in numbers' is through the risk calculator that helps surgeons have important, but often difficult, conversations about predicted outcomes ranging from morbidity and mortality to the risk of no longer being able to live independently. The predictive modeling tool, made available through the national NSQIP program, allows a provider to log in patient risk factors to more accurately assess the risk associated with a surgery under consideration.

Gibson said the risk calculations could help a family decide the best course to take between aggressive and supportive care. "It helps you begin a conversation that helps to avoid painful and expensive, futile care that does not affect a patient's ultimate outcome," he explained.

Dr. Will Gibson

One of the first times he remembers using the risk calculator was in conjunction with a young man with hypertriglyceridemia-induced acute pancreatitis. "He had a 76 percent 30-day mortality rate," Gibson said. Previously, talking with the patient's family would have been a strictly subjective conversation based on Gibson's surgical experience. Having the risk calculator allowed the surgeon to add an objective measure alongside his deep experience. "I'm glad to say he's still alive … he beat the odds … but the family understood his struggle because I was able to set the expectations appropriately," Gibson explained.

Final Analysis

"We always want to make sure we're doing the best we can for our patients," said Glenn. Analyzing the data from the collaborative makes it easier to do just that. "Now we have the opportunity to see how our patients are doing, how well we are doing, and areas where we need to improve."

Gibson, who is part of the leadership team fro the statewide collaborative, added, "The benefits of a statewide collaborative is that it has allowed for transparency and the development of personal relationships among quality leaders across Tennessee." At the end of the day, he noted, that transparency and thought leadership has had a positive impact on patient outcomes.

TENNESSEE
Surgical Quality Collaborative

The Tennessee Surgical Quality Collaborative is made up of more than 20 hospitals and health systems across the state and represents approximately 1,500 surgeons. TSQC is a collaboration of the Tennessee Chapter of the American College of Surgeons, member hospitals, and the Tennessee Hospital Association's Center for Patient Safety, which serves as the coordinating center.