St. Vincent's Medical Center achieves efficiency and reduces costs with performance analytics

St. Vincent's Medical Center in Bridgeport, Conn., is a full-service teaching hospital with surgical residency.

Hospital executives determined a need to strengthen the surgery department by improving operating room performance while also reducing costs. St. Vincent's achieved its objectives by leveraging clinical automation and analytic benchmarking.

The hospital used a vendor-neutral health care business intelligence solution and operating room benchmarking service to drive improvements in case scheduling accuracy, case start times and block utilization.

Through a first-case start-time initiative, the medical center's percentage of on-time first cases rose from a low of 20 percent to a high of 74.8 percent. Premium overtime hours were also reduced by 25 percent. Most significantly, the hospital lowered its Serious Safety Event Rate (SSER) by 63 percent.

Challenges
St. Vincent's surgery department lacked the data necessary to improve patient safety and operational efficacy.

Its leadership realized that turnaround times for surgeries were too long, but they were uncertain how to speed up current processes. Operating room utilization rates were historically low, and blocks were routinely awarded to surgeons who did not always need the time. The hospital conducted an internal study of the OR department, interviewing more than 70 individuals.

The in-depth assessment identified five key problem areas:

- The department needed to build a strong, permanent medical leadership team
- Staff had become complacent on issues of efficiency
- The department struggled to communicate effectively with the materials management department
- The department needed a comprehensive clinical automation program that included integrated surgical scheduling, perioperative charting and automated anesthesia record systems
- The department's physical plant was aging and inadequate

Answers
Throughout the next three years, St. Vincent's embarked on an aggressive program to change the way its OR worked.

With a new medical director and staff on board, the hospital renovated the OR facility and rolled out automation solutions that helped gather data. Connecting the scheduling system to the financial system allowed for quick turnaround on logging charges. Instead of three staff members working eight hours a day to log charges, the work was now done by two individuals in two hours per day.

Freed from clerical duties, nurses had more time for patient care, increasing their satisfaction levels. By rolling out perioperative charting across all phases of the pre- and post-op process, the department eliminated paper and integrated surgical care information into the patient's electronic health record.

With data now in an electronic format, St. Vincent's selected an information technology vendor to develop custom dashboards for monthly trended outcomes on key selected performance indicators. In addition to the dashboards, the service also aggregates data from more than 2.5 million surgical cases in 350 hospitals, providing benchmarks with other facilities.

"Comparing ourselves to other peer hospitals across the country gives us a clear perspective on how we are doing," says Brooke Karlsen, director of surgical services, St. Vincent's. "Showing where we sit in the whole mix provides an extremely powerful message to bring back to the staff, the surgeons and the administration."

Results
By creating a "single source of truth" with it new dashboard IT solution, St. Vincent's was able to evaluate its programs and achieve substantial improvements in operations and outcomes. St. Vincent's increased the percentage of daily first cases that began on time from 20 to 74.8 percent.

St. Vincent's also reduced its premium overtime hours by 25 percent through better management of block time scheduling and increasing on-time starts. Block scheduling analysis is now done exclusively through the dashboard IT solution.

The hospital also improved patient safety by lowering its SSER by 63 percent. It achieved other financial savings by reducing the year-over-year cost of materials to below the inflation rate.

"All of our managers are personally committed to making improvements in our weakest areas," Karlsen says. "Each service line manager has some at-risk pay associated with meeting these goals. The OR dashboard technology enables them to monitor progress for their specific areas."

Leadership continues to set standards that are far higher than previous goals.

"Even though it might take us a while, we plan to achieve the 90th percentile for all the measures," says Karlsen. "We chose to benchmark our quality metrics against the best, because we know it will give us credibility — and help us become the best OR we can be."

Organization
• St. Vincent's Medical Center, Bridgeport, Conn.
• 396 licensed beds
• Full-service teaching hospital with surgical residency
• Affiliated with New York Medical College
• 20,000 inpatients/year
• Level II trauma center

Critical Issues
• Developing strong, accountable leadership
• Automating manual processes
• Controlling material and supply usage

Results
• Increased daily on-time first-case starts from 20 percent to a high of 74.8 percent
• Reduced premium overtime hours by 25 percent
• Lowered the hospital's Serious Safety Event Rate by 63 percent
• Reduced material usage

Links to include:
1) McKesson (Company): http://betterhealth.mckesson.com/
2) Product: www.mckesson.com/enterpriseintelligence