St. Anthony’s Medical Center
Using SIS Analytics to reduce costs, revamp case scheduling and increase patient safety

Challenge:
St. Anthony’s Medical Center, a 767-bed comprehensive healthcare complex in St. Louis, has a history of providing outstanding service to its patients. Featuring a 44-room emergency department and a level-two trauma center that treats nearly 70,000 patients annually, SAMC received the 2007 Distinguished Hospital Award for Patient Safety from HealthGrades.

Nationally recognized hospitals like St. Anthony’s achieve their status by enabling their staff to provide a high level of service. It is essential to equip physicians, surgeons and clinicians with the tools they need to provide this level of service, and to back them up with a sound technology infrastructure.

When Gordon Lashmett joined SAMC as chief information officer in 2005, he knew that changes needed to be made in the surgery department. It was time to replace the existing OR information system with one that implemented smoothly and enabled hospital staff to provide the high level of patient care expected from St. Anthony’s.

Numerous challenges made the need for change in the OR readily apparent. The existing process could be improved by instituting standard nomenclature for preference cards, reducing documentation time, and providing OR staff with a way to accurately track key patient safety information. The existing system lacked pre-admission functionality – something the nurses definitely wanted.

Case scheduling was another concern. SAMC was looking for ways to streamline the scheduling of surgery cases.

Very often cases would be scheduled to begin at 7:30 p.m. and would continue late into the night. Late night start times and poorly utilized block times inevitably led to increased case costs and wait lists.

Management in the OR knew that there were issues but they lacked tools to help them track or measure any of the information they needed, and had no statistics to substantiate their concerns to the executive team.

“It was clear that we needed to choose a new OR system, and we put that decision in the hands of the surgeons and OR clinicians,” said Lashmett, CIO. “You have to involve the people who will be using the system every day – they understand the needs of the OR better than anyone. The success of the surgical department is critically important for the entire enterprise.”

He gave his OR staff some options and allowed them to select the new information system for their department. When the committee chose SIS, Lashmett knew that SAMC would be implementing a system that would accomplish what needed to be done – he had worked with SIS in the past and understood its capacity to completely change the way the OR does business.

Solution:
The implementation was completed in 2006 and featured SIS Analytics, a powerful tool that transforms perioperative data into the business, operational, and clinical knowledge required for making strategic decisions. The comprehensive perioperative system captures all of the information about the case as a direct result of the clinician workflow process. With SIS Analytics, SAMC saw the opportunity to generate real, measurable statistics combining clinical and business data for the first time ever.
SIS Analytics is a surgery-specific business intelligence tool that unites disparate data and makes it easy for decision makers to review and analyze information for trends, opportunities and risks. It includes pre-configured, multi-dimensional views of perioperative data that can be easily customized based on specific need.

SAMC opted to add customized, user-defined reporting to support their new hospital business initiatives. They had done some reporting in Crystal but it was taking too long and costing too much and still not returning the data required. They decided that SIS Analytics could deliver better standard reporting and provide the customizations they needed to support the business.

“SIS Analytics completely changed the way we had been scheduling for 20 years,” said Tom Collins, I.S. Clinical Coordinator. “Prior to Analytics we couldn’t measure anything. Now we use it all the time… for everything.”

The OR management at SAMC now uses user-defined reports for OR utilization. The data from these reports allowed them to pinpoint the inefficiencies in their old scheduling process and gave them the information they needed to implement a new block utilization system. With the new system block times are divided by service, with a few general blocks that can be utilized, if space is available, when the service blocks times are filled.

When the new scheduling methodology was first implemented there was resistance from some of the surgeons who were accustomed to the old process. “That was easy to solve,” said Collins. “We simply showed them the usage statistics generated by Analytics and they understood. There were no more complaints. The new methodology allowed them to use their time much more effectively.”

SIS Analytics also helped the OR staff to track and address Surgical Care Improvement Project (SCIP) initiatives and other patient safety issues. Even prior to the implementation, St. Anthony’s staff had been focusing on efforts to decrease the number of hypothermic and hypoglycemic patients in PACU. The data they gathered through SIS Analytics helped them in tracking and measuring improvement statistics.

SAMC also used SIS Analytics to track case costs, measuring vital information such as cost per case for each surgeon and frequency of usage for specific supplies. They used this information to spearhead initiatives to improve case costs and streamline materials management.

Results:
Effective use of user-defined reports through SIS Analytics allowed the SAMC OR staff to implement several immensely successful initiatives to cut costs, improve patient safety and increase the satisfaction of SAMC’s patients, surgeons and clinicians. The results have been dramatic.

Late night cases are a thing of the past, and there has been a 27% improvement in first starts. OR utilization has increased by 6%. Physicians and patients are happier, and case costs stemming from overtime charges are significantly reduced.

OR management has also been able to sharply reduce case costs through the use of materials management information from SIS Analytics. They can now show trends resulting from inefficient use of supplies, such as times when an entire package would be opened unnecessarily. They can track case costs per surgeon and determine why the same procedure would frequently be more expensive for particular surgeons.

Analytics information has also proven useful for hospital negotiators when dealing with buyers. Supply usage statistics have enabled them to more easily compare the costs of materials from different companies, giving SAMC negotiators a distinct advantage at the bargaining table.

Because the OR staff can now track patient safety statistics, they are more able to show compliance with SCIP initiatives and implement programs to improve areas that need attention. By tracking patient safety information through SIS Analytics, they were able to record the success of their patient safety initiatives. St. Anthony’s has seen a dramatic turnaround, and SIS Analytics played a key part in tracking and recording the marked improvements.