

## RealView™ Helps Erie County Medical Center Boost OR Capacity and Revenue



### CHALLENGE

With a limited number of operating rooms (ORs) – and lacking the physical room and capital to build more – Erie County Medical Center (ECMC) sought a way to maximize patient throughput and increase OR capacity levels to generate additional revenue.

### SOLUTION

ECMC turned to PeriOptimum to streamline surgical workflows and for its RealView\* solution, which is a system that uses radio frequency identification (RFID) technology to track OR patients; display and communicate case status to physicians, nurses and patient families; and automatically capture events for documentation.

### RESULTS

ECMC increased its average OR capacity to nearly 85 percent, which resulted in a three-month return on its RealView investment, and the organization expects to realize a \$2 million increase in revenue within the first 12 months of using the solution.

With surgical services typically representing 20 percent of patient volume and 60 percent of revenues at the average hospital, Buffalo, N.Y.-based ECMC knew that optimizing the management of its ORs and surgical patients was a key component to helping the organization realize its revenue goals. Fortunately, ECMC's new chief executive officer was already familiar with a solution to achieve these goals.

“When I was the CEO at a previous hospital, we installed RealView and realized many millions of dollars in additional revenue as a result of the system,” said Michael Young, CEO of ECMC. “For me, installing RealView at ECMC was a minimally invasive way to increase revenue and improve our bottom line without incurring substantial capital expenses.”

Clipped to each surgical patient's gown or IV, small, reusable, RFID tags transmit signals to receivers located throughout perioperative services. As the patient moves from registration or holding to PreOp to the OR to PACU to PostOp to discharge from surgery, RealView records in and out times, and other events in the surgical pathway. RealView then synthesizes the workflow of each case into comprehensive, real-time, picture of all the work underway in perioperative services for surgeons, anesthesiologists, nurses, and managers. This real-time visualization of workflow enables clinicians and other staff to make better decisions about the use of time and resources.

RealView provides organizations with an “air-traffic controller” perspective of all surgical cases across departments and even across multiple facilities. This enables organizations to optimize scheduling and increase OR capacity by providing organizations with the tools to manage bottlenecks and late arrivals by staff, or to handle situations when procedures take longer than anticipated. RealView augments existing surgical scheduling and documentation applications that are integrated via standard HL/7 interfaces. RealView runs over an organization's standard TCP/IP network. Certain components of the system can be configured for remote access via secure Internet connections.



Before RealView, ECMC's lead time for scheduling elective and nonemergency surgical procedures was typically two to three weeks. That has improved to two to three days as a result of optimized workflow and scheduling that has increased OR capacity to nearly 85 percent, from 60 percent. In the first six months of using RealView, the number of inpatient surgical cases performed at ECMC increased by 6 percent, and outpatient cases increased by 19 percent. These increases have helped ECMC realize a 100 percent return on its RealView investment in only three months, and the organization expects to generate an additional \$2 million in surgical revenue within the first 12 months following implementation as a result of using the solution.

"In the United States, the typical OR is only operating at about 65 percent of its capacity, so optimizing scheduling and workflow is a much more cost-effective way to increase capacity, as opposed to building additional OR suites," said Hakan Ilkin, co-founder of PeriOptimum and its executive vice president.

An important feature of RealView is its ability to keep family members informed about the progress of patients in surgery. Within the OR waiting rooms at ECMC are flat panel monitors that display the status of patients. To protect the privacy of patients, code numbers – in place of the patient names – are used to identify the patients on the monitors. Family members are given the code for the patient, and they can view whether the patient is ready for surgery, the procedure is underway, there are delays and surgery time has been extended, or the procedure is complete.

"RealView's ability to display the status of a procedure greatly reduces the anxiety and

worry that family members encounter when they have a patient in surgery," said James Turner, ECMC's vice president of surgical services. "It's yet another way that we can improve the level of service that we deliver."

Surgical operational data collected by PeriOptimum enables ECMC to analyze and benchmark perioperative process, identifying bottlenecks, why procedures are cancelled or start late, as well as discovering subtle trends that impact throughput. Minimal training is needed for accessing this data, since PeriOptimum's Surgical Information Management System (SIMS) provides a Web-based interface to manage reporting.

ECMC currently has RealView deployed in Pre-Op, operating rooms, Post-Op and surgical waiting rooms. "Our experience with RealView has encouraged us to deploy the solution in other areas of our organization," Young said. "Within the next 12 months we'll deploy RealView in our cardiac catheterization labs."



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