

SURGICAL STEWARDSHIP

Integrated Medical Systems International has used its implementation of Oracle to make possible its "instrumentReady" program, a series of strategies employed by hospitals to increase efficiency and patient safety.

**BY LORI PICKETT
CULPEPPER
PHOTOS BY ROBERT FARLEY**

The patient is on the table, everyone is ready and the surgery is about to begin. The nurse hands the first piece of critical equipment to the surgeon, but it's broken, and the surgery is put on hold. This could be a family member, and their safety is at risk every time something like this happens.

Unfortunately these situations do occur, but the incidents can be reduced. How can a healthcare facility keep this from happening, while also increasing its efficiency, patient safety, surgeon and nurse satisfaction?

Integrated Medical Systems International Inc. (IMS) has figured out the answers to these questions, and is employing unique strategies to combat the problem in the country's first platform that focuses on instrument readiness.

"In the beginning, we started as a repair company," says IMS CEO Gene Robinson. Even then, IMS was a pioneer in the healthcare industry when few others were performing instrument repairs. After about 10 years in that capacity, IMS transitioned into a service company.

"IMS is not a repair company anymore, but we do perform repairs," he says. "That's kind of a transactional level. We've moved up to where we really change processes, eliminate any inefficiencies and improve outcomes through the instrumentReady program."

IMS does have four repair facilities, the largest of which is in Birmingham. Director of Account Management Bill Phillips says these



IMS CEO Gene Robinson has morphed his medical instrument repair business into a company focused on efficiency services for the healthcare industry.

repair facilities support instrument readiness. "When instruments are repaired, they need to be perfect," he says. Perfection is all that IMS strives for, whether it's repairing a .57 mm optic lens by hand or freshening the paint on color-coded surgical scissors.

"Instruments from all over the U.S. come into Birmingham," Phillips says. One of IMS's biggest customers is in Alaska.

He says it's somewhat counter-intuitive that an instrument repair company tries so hard to keep their customers' equipment functioning properly, but Phillips says the value of all the services needed is most important. IMS has been able to grow by helping its customers in this way.

FEEDBACK FROM SURGEON TEAMS

After 16 years of sustained growth, IMS started to see changes in the industry, which Robinson felt the company needed to respond to. The message of IMS started to become weak in the way customers perceived it. "We went on an extensive discovery to figure out what the customer really wanted."

About 300 surgeons, nurses and administrators helped IMS with this task. Mike Ulven, director of marketing for IMS, says what came out of the studies was a lot of pain in the industry because of the lack of instrument preparedness. "In the end, they wanted to be instrument ready, which means when the surgi-

cal team is ready, the instruments are ready," Robinson says.

The outcome is the instrumentReady approach, which starts by making sure instruments are serviced properly at the labs, Ulven says. "Above that, it is a process we call IMS Milestone for continuous improvement." The final level of the approach involves IMS teams going into healthcare facilities to actually manage departments, often central sterile processing, which is where instruments are sterilized, reordered and organized for surgical trays. Ulven says the goal is for IMS to work on-site for a few years, and leave the hospital in a better state.

Trinity Medical Center in Birmingham is one of about 14 hospitals now using the instrumentReady approach. Mark Pinson is the vice president of operations of IMS Surgeon Support Solutions, and he manages the instrumentReady programs at Trinity. He says working on-site at the facilities is all about building trust with the hospital staff.

When IMS started at Trinity, it provided only one service with two people. Today, it provides many services. "You know you're doing your job well when they're asking you to do more," Pinson says.

The IMS team is essentially a part of the surgical team, says Lynne Hayes, R.N. and director of surgical services for Trinity. She says IMS is helpful in cleaning and preparing surgical trays in central sterile processing, as well as helping in the operating room as another pair of arms and legs. She says the extra assistance allows nurses and surgeons to do other important tasks without having to worry about the instruments.

"We have been able to reduce the time between cases with IMS assistance," she says. "IMS inspects the trays, makes sure nothing is broken and eliminates delays. Delays are time, and time is money."

Lorrie Scott, a lead instrument management technician, adds that the surgical caseload at Trinity has gone from about 93 cases each month up to around 130. The instrumentReady program has the potential to increase a hospital's caseload by as many as 200 cases per month.

"The significance is, one additional surgery per day for a year brings in \$4 to \$7 million in revenue" for an average size hospital, according to an *AORN Journal* study done in

December of 2005. "It's an excellent revenue enhancement program," Robinson says. Not having instruments ready reduces the number of surgeries that can be performed in a day, thereby reducing revenue and profitability.

"I want to make the statement that whatever specialty we affect, we can probably increase caseloads 7 to 10 percent on average," Robinson says.

In fact, at UAB Hospital, the case volume increase was 14.4 percent after IMS started working with the hospital in 2005.

IMS DEVELOPED A SOFTWARE PROGRAM CALLED READYTRACKER — TISSUE. BY USING BAR-CODE TECHNOLOGY TO TRACK BONE, TISSUE AND IMPLANTS, HOSPITALS ARE ABLE TO KEEP UP WITH EXPIRATION DATES AND OTHER VITAL INFORMATION.

Being instrument ready also reduces the number of incidents when an instrument is not available or is not functioning properly, from 70 incidents down to three, Robinson says.

PERSONALIZING THE INSTRUMENT TRAYS

One of the goals is to make sure the surgeon stays as busy as possible and that there is little downtime between operating procedures. "Surgeons want to do as good of a job as possible by getting in, doing the procedure and getting out," Robinson says.

IMS also allows instruments and packaging to be customized to accommodate surgeon preferences. Hayes says, "It's beneficial from the standpoint of the satisfaction of the physician, because he has what he needs every time."

It also is aimed at simplifying the lives of nurses. Robinson says one nurse's comment was, "I'm tired of searching for instruments," which demonstrated to IMS that the need for better systems was there.

Studies have shown that not hav-

ing functional equipment ready can increase the stress level of nurses and staff, while also compromising patient safety.

When Hurricane Katrina left Tulane University Hospital and Clinic in New Orleans with a loss of patients, physicians, nurses and revenue, they needed help. Tulane was the first hospital to reopen seven months after the hurricane blew through, but many of the critical elements needed to function properly were not ready. Instrument sets were incomplete, mislabeled, broken or dull, and masking tape was used to label many of them.

To fix its problems, Tulane use the IMS Milestone program to restore functionality to the hospital's instrument sets. The results were positive, and the hospital was able to regain its efficiency.

MAKING INSTRUMENTREADY A POSSIBILITY

To establish the IMS Milestone program, IMS installed Oracle. It was difficult, but allowed the company to grow, Robinson says.

When a managing partner attended an information technology seminar at Harvard University, a professor there told him that IMS should fail because it was so small compared to such a strong and complicated package like Oracle. "If it doesn't kill you, it makes you stronger," Ulven says.

The first couple of months with the program may have suggested failure, but IMS learned and evolved with the program. Now, IMS has doubled in size, and Robinson says he is getting the results he wanted. "It's a tremendous competitive advantage."

Because of Oracle, IMS was able to implement the instrumentReady approach. The company is able to provide customers with digital services, such as "View at a Click" or "Ready View." Customers can go online, look up equipment, track it with a serial number and see the item's history and total expenditures. It helps hospitals in the planning of surgeries because the staff knows when their repaired instruments will be ready for use.

"I don't know of but one major medical company that can let their customers view where their equipment is over the web," Robinson says.

IMS Gold allows trays to be sent

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to their lab facilities on Friday and Saturday for refurbishing. By Sunday, the instruments go back to the hospital for use the coming week.

About 40 vans around the country are part of the IMS Red On Location program that allows mobile, on-site instrument repair and refurbishing of stainless steel and laparoscopic instruments. Phillips says this service is growing rapidly, with at least 10 additional trucks scheduled to start operations this year. He says it would be easy to get 50 more trucks all at once, but the implementation is more complicated. "Before they go out, they have to be perfect," Phillips says.

Robinson says there are even more aspects of the instrumentReady program. Surgeons use a lot of tissue in the operating room. In response, IMS developed a software program called ReadyTracker — Tissue. By using bar-code technology to track bone, tissue and implants, hospitals are able to keep up with expiration dates and other vital information.

Trinity Medical Center R.N. and Education Coordinator Becky Drake uses the tissue tracker. By logging onto a secure website, users have a record of all the tissue the hospital has. Items that have expired are coded in red, those that will expire soon are in yellow and all others are white. Tissues in yellow are used first to avoid wasting them. "It's definitely a cost-saver for us," Drake says.

While the instrumentReady approach is only in 14 hospitals so far, IMS is doing business with about 2,000 healthcare facilities throughout the country, which all employ some element of IMS instrument readiness. Robinson says several other facilities are considering adopting the program or are already in the process of doing so, and he recently talked to a major healthcare executive who said over half of his facilities would qualify for the instrumentReady programs.

"We're just scratching the surface," Robinson says. The prime directive behind the new programs is to increase efficiency, revenue and satisfaction, but the guiding light behind the concept is easily summed up: "Because it's always someone's loved one on the table." •

Lori Pickett Culpepper is a staff writer for Business Alabama.