

Taking supply chain optimization to the next level at St. Rita's

CareFusion integrates supply dispensing technology and OR information systems



Summary

As financial pressures compel hospitals to implement innovative approaches to care, automating the supply chain has been identified as a way for hospitals to see a significant improvement in their bottom line and supply chain efficiencies. St. Rita's Medical Center, a 425-bed hospital located in Lima, Ohio, is a shining example of an organization that took an already excellent operating structure to the next level with the help of supply chain automation.

St. Rita's adopted technology in a phased approach. In 2008, St. Rita's began installing Pyxis® supply technologies from CareFusion and, by the end of 2009, it had more than 50 automated supply technology locations including all nursing areas, the cath lab and the interventional radiology department. After experiencing strong financial results and increased clinical and operational efficiencies in these areas, St. Rita's moved forward with installing the Pyxis ProcedureStation® system in OR areas and integrated it with its OR Information System (ORIS) from McKesson shortly thereafter.

Phase I results: Nursing Areas and Cath Lab*

In the first two years that Pyxis supply technologies were installed in the nursing and cath lab areas at St. Rita's, they experienced tremendous results. Their investment resulted in positive financial benefits with a payback period of only six months—far exceeding the hospital leadership's expectation of three years. (See figure 1)

| Figure 1—Results of phase 1 | |
|---|-------------|
| Total two-year benefit (<i>reduction in inventory, increase in cost efficiencies and incremental revenue</i>) | \$5,488,939 |
| Product availability | 99.7% |
| Charge capture | 98% |
| User compliance | 93% |

Phase II results: The OR*

Because up to half of a typical hospital's total operating budget is allocated in the surgical environment¹, and approximately 40% of revenue is generated from the surgical environment², it was natural for St. Rita's to automate its OR supply chain next. CareFusion worked closely with St. Rita's throughout the implementation and integration processes. As a result of powerful clinician champions' dedication and leadership's support, St. Rita's was able to see the following results after OR implementation. (See figure 2)

Figure 2—Results after OR implementation

| | |
|--|----------|
| Projected annual charge capture increase from four procedures alone | \$86,952 |
| Decrease in supply expense | 11.8% |
| Increase in supply revenue (<i>normalized for volume</i>) | 3.5% |
| Reduction in the mean per case round trip rate for supply returns | 9.38% |
| Items identified and eliminated from unused preference cards | 500 |
| Decrease in the times nurses leave the OR during a case to get a needed supply | 89% |
| Charge capture (<i>compared to 75% before Pyxis automation and ORIS integration</i>) | 98% |

“The ORIS integration has allowed staff to see what we've saved—so they can really see their contribution to the organization.”

Jo Ann M. Shough, RN
Director of Perioperative Services

Pyxis®



“The switch to automation is a great communication and relationship-building tool among departments.”

Corey Blankemeyer, RN
Surgery IS Coordinator

Smoother inventory management processes

To enable the inventory management workflow to run smoother, St. Rita's made several process changes. They moved from an inefficient, core-driven process to an efficient, room-driven process. In addition to completely changing the case pick process and other workflows, they also redesigned staff roles. “We had to work closely with surgical staff and justify why we needed to change their operations,” shared Jason Hays, Director of Supply Chain. “Once we laid it out for them, they understood we wanted the department to flow, whereas it had been very disjointed and chaotic up to that point.”

More clinical time for nurses

Although they expressed initial resistance to the switch to automation, nurses quickly saw how the new system was increasing their clinical time by automating documentation, streamlining workflow and minimizing the work they do in the patient room. With the new system, all they have to do is push the *Take* button when they remove an item, and it's automatically updated in the chart. The charge is produced, and inventory is reduced so the product is replenished. “When we turned on the ORIS integration and saw the data flowing into the chart, it confirmed that we were doing the right thing,” said Terry Bay, Vice President of Supply Chain Operations, Catholic Health Partners (formerly Chief Resource Officer at St Rita's).

Better overall supply cost control

Real-time access to supply cost information has allowed St. Rita's to improve case costing, enforce supply accountability and respond to budgetary concerns. For example, St. Rita's was able to use supply data to pinpoint a \$600,000 spike in OR expenses to one surgeon who had a higher-than-average number of cases that month, and those specialized spine procedures had a higher-than-average cost per case. According to John Renner, St. Rita's Chief Financial Officer (CFO), “I'm able to pick up the phone and call Terry for clarification on an issue, and he has the data right at his fingertips. That is the accountability factor that allows us to turn on a dime and make good decisions based on fact.”

“We knew we did things well here. This new technology gave us the data to take that next step to maintain our leadership goals and to do things even better.”

Terry Bay, Vice President of Supply Chain Operations
Catholic Health Partners (formerly Chief Resource Officer at St Rita's)

This is yet another example of how CareFusion is combining data and technology to help hospitals improve patient care and enable hospitals to run more efficiently. To learn more, visit carefusion.com/OR.

*St Rita's results reflect the facility's supply chain processes in combination with Pyxis technologies.

References

1 Grover C. “Why Total Perioperative Automation is Essential for 21st Century Health Care Systems.” Grover Group, 2006. 2 “Surgical Services Reform: Executive Briefing for Clinical Leaders,” Washington, D.C.: Clinical Advisory Board, 2001 and “The DRG Handbook,” Baltimore: HCIA Inc, 1999; Clinical Advisory board analysis.

CareFusion
San Diego, CA

carefusion.com

