

Changing the game

Using RFID technology to drive supply chain innovation and PPI inventory management at BJC HealthCare

Meeting the challenge

BJC HealthCare (bjc.org) is a 15-hospital healthcare organization serving the metropolitan St. Louis, mid-Missouri and southern Illinois regions. BJC sought improvements in managing inventory that included more than \$400 million in physician preference item (PPI) annual spend. The inventory management challenges impacted efficiency and cost and required clinicians to spend unnecessary time away from patient care.

“An inventory management solution would have to make clinicians’ jobs easier, so they could spend more time with patients,”

said Alan McQueen, Director of Supply Chain Logistics/ Supply Distribution for BJC HealthCare.



BJC wanted to address other critical inventory management issues as well, including:

- Inventory par levels were based more on estimates than real-time utilization data.
- Products (both owned and consigned) were subject to being over- or under-stocked, resulting in excess inventory costs and expedited freight charges.
- Products were at risk for expiring on the shelves, instead of being used for patient care.

“We needed better visibility into inventory levels across the system, as well as a way to improve inventory coordination among departments and entities across the entire organization. We were also using products from multiple vendors across the system, and we had a lot of wasteful product expirations,” McQueen said.



Reimagining BJC's supply chain

To address these issues, BJC was ready to evolve its supply chain strategy, leveraging the resources and expertise of distribution and manufacturing alike. The goal of the collaboration: to create a central, consolidated inventory location and increase inventory management effectiveness across all sites of care delivery.

"We knew we had to aggregate volume and would have better control if we were shipping to one site vs. 13. We needed an inventory management umbrella over all departments at all locations," McQueen added.

After thorough due diligence, BJC determined that RFID technology would be the most effective way to enable this consolidation. The health system evaluated a wide range of healthcare RFID suppliers and ultimately chose WaveMark™ supply management and workflow solutions.



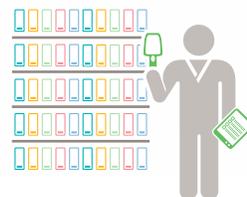
Implementing success

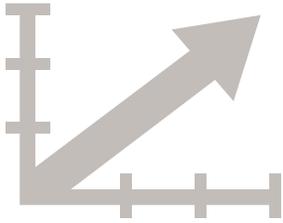
BJC selected three hospitals for a pilot program: Missouri Baptist Medical Center, Progress West Hospital and Barnes-Jewish St. Peters Hospital.

Cook Medical products were selected for the cardiac cath labs at Progress West Hospital and Barnes-Jewish St. Peters Hospital and the GI endoscopy lab at Missouri Baptist Medical Center.

The Cardinal Health distribution center was then wired with RFID technology to receive and stock Cook Medical products — which were also affixed with RFID tags to support tracking — and distributed to BJC sites as ordered.

WaveMark installed the RFID solution and conducted user training for the web-based analytics platform and its interface to hospital information systems (for example, billing and materials management).





A culture of continuous improvement

WaveMark built statistically established par levels over time, based on tracking actual, real-time utilization. The system gradually lowered inventory levels — at the speed and comfort level of BJC — until they were at the new, scientifically derived par levels. Automatic reordering helped ensure par levels were maintained with no interruption in service, while achieving lower costs and greater supply chain efficiency.

Seeing the results

The system improved inventory visibility instantly. “The shelves just ‘lit up.’ Now we know where *everything* is. It’s like having x-ray vision. Most importantly, the increased efficiency enables clinicians to spend more time with patients,” said Jeff Miller, Supply Chain Supervisor at Missouri Baptist Medical Center.

“We knew we had a great manual system going in,”

said Sue Pratt, Supervisor, Supply Distribution for Progress West Hospital. “We put RFID to the test and discovered that it really is the technology of the future. And it was a seamless IT installation.”



More data, more visibility, more insights.

Because the solution combines RFID and barcode tracking technology with mobile apps and cloud-based analytics software, BJC can monitor their high-value PPI products from the manufacturer all the way to the point of care. This level of visibility allows them to optimize their inventory levels, lower costs, streamline workflows and see new insights to improve performance.

BJC’s success by the numbers

23%	Direct inventory reduction
10%	Consigned inventory reduction
32%	Additional inventory reduction (due to par optimization)
<1%	Production expiration
\$7,800	Inventory holding cost reduction (due to eliminating excess inventory)
\$49,000	Freight savings (annualized)
\$2.1 million	Bulk buy savings (one-time)
\$1.5 million	Expected inventory reduction in next 6 months alone

Into the future

BJC is broadening the use of RFID technology to not only other departments within the pilot hospitals, but also to other hospitals in the system as well.

In a changing healthcare environment that is increasing pressure on health organizations to reduce spending and improve operating efficiencies, new and innovative approaches are needed. The next generation supply chain is one solution, and BJC HealthCare, Cook Medical and WaveMark have collaborated on a strategy that shows promising early results.

Advancing efficiency: the Cook Medical perspective

For the BJC pilot, Cook Medical significantly improved inventory management, product expirations, product development strategy — even the productivity of its sales representatives.

“Now our reps can spend more time consulting than counting products,”

said Mike Hughes, Vice President, Supply Chain and Distribution for Cook Medical.

65% Consigned inventory reduction

<1% Production expiration

“Implementation of RFID technology for inventory management has enabled all three of our organizations to operate more efficiently.”

Alan McQueen

Director, Supply Chain
Logistics/Supply Distribution
BJC HealthCare



cardinalhealth.com/wavemark