
Boston
Children's
Hospital

CASE STUDY

Boston Children's automates inventory handling, boosts visibility with PAR Excellence's technology

1	16,670	7	104
NO. OF HOSPITALS	NO. OF SCALES INSTALLED	DEPARTMENTS WITH SCALES	NO. OF LOCATIONS WITH SCALES

WEIGHT-BASED TRACKING OPTIMIZES PAR LEVELS, CUTS EXPIRED PRODUCT COSTS

Sustaining a reputation as a top pediatric hospital means performing at a high level in care delivery and every critical process, such as inventory management, that makes it possible. For Boston Children's Hospital, the solution for keeping inventory under control – and getting caregivers out of the inventory business – has been an integrated hardware and software solution from PAR Excellence.

Ranked America's number-one pediatric hospital for 2017 by US News and World Report, Boston Children's Hospital includes a 400-bed main facility in Boston and a large ambulatory care facility in Waltham, Mass. The hospital sees about 25,000 inpatient admissions and 557,000 clinical visits annually, and supply chain activity accounts for nearly one third of operating expenses.

The system in place before PAR Excellence came on the scene – a mix of locked cabinets that required nurses to perform a series of steps in order to access supplies, along with manual counts and replenishment – was burdening caregivers and creating substantial compliance problems.

The industry trend toward reimbursement based on diagnostic codes or other bundled rates such as per diems made the ability to charge supplies to each patient less critical. Instead, the focus was on automation and keeping caregivers focused on patients.

"Management of supplies historically has been on the nursing staff," said Andrew Singer, senior director, Supply

AT A GLANCE

Implemented mix of PAR Excellence weight-based inventory control for stock items and barcode scanning of lot numbers and expiration dates for high-dollar, non-stock items

RESULTS

- Cut stock on-hand value by $120K in system's first year by optimizing par levels
- Cut OR inventory by $100K in ambulatory-care facility
- Reduced or avoided product expiration losses by $400K

Chain Management. "But the cabinets weren't used properly. They were doing orders by adjusting numbers in the system to show current on-hand quantity, or they were ordering manually."

Without "trustworthy data" about usage and on-hand quantities, Singer explained, "we saw lots of issues with overstock, stock outs, and never-updated or inappropriate par levels."

Added David Walsh, director, Supply Chain Administration: "End users couldn't always be sure what they had, what they used, or what they needed."

Finalists in the RFP process were PAR Excellence and a vendor that offered a bin-and-tag system. Boston Children's selected PAR Excellence both for its lower operating cost and its focus on reducing manual processes.

"The other system put lots of requirements on our nursing staff," Singer said. "We wanted the process to be more automated, so we liked PAR Excellence, including the predictive par-level measurements based on parameters we set for days' supply and reorder points."

BLEND OF WEIGHT-BASED AND LOT-SCANNING SOLUTIONS PROVIDES TAILORED APPROACH TO INVENTORY CONTROL

Boston Children's started its rollout of PAR Excellence systems a few years ago on inpatient floors, followed by areas such emergency rooms and supporting stock rooms. As products are taken and replenished, the PAR Excellence hardware registers the weight change and translates it into real-time quantities, reorder recommendations, and usage data for analysis using PAR Excellence analytics software.

"We are now capable of doing installs on our own," Singer noted, "but we found it very helpful to work side by side with PAR Excellence staff, and it was a great opportunity to get the program embedded in the hospital."

More recently, the hospital network has leveraged its PAR Excellence infrastructure with an expansion into its cath labs and interventional radiology areas, using lot number and expiration date scanning to help reduce product spoilage and simplify special activities such as recall management and consigned-product control.

"Those areas have lower volume but higher dollars per item," explained Walsh. "The PAR Excellence system has been a great tool for expiration-dated products. In some areas, we had a great amount of expired product. That's now one or two percent of what it used to be."

The PAR Excellence system also simplifies transfers between locations, to enable pooling of costly supplies and reduce overall stocking levels.

The software behind the system runs on a single, local server. Interfaces to the hospital's materials management, billing and ADT systems automate data exchange between the PAR Excellence infrastructure and the hospital, further reducing manual inventory processes.

"It's very low maintenance, from a system perspective," Singer said.

For stock items, the system automatically checks weight-based inventory bins every five minutes to provide constant oversight. In procedure rooms, non-stock items are scanned to individual patients, leveraging the PAR Excellence monitoring and ordering backend, interfaces, and analytics.

"Our goal is to try to have as much as possible on the system one way or another – louvered panels with bins, scanned items, PAR Mobile handhelds," Walsh said. "One of the things we like best is having a complete inventory management solution available to us through PAR Excellence."

RESULTS: INCREASED VISIBILITY AND AUTOMATION, REDUCED INVENTORY SPEND

Implementing PAR Excellence solutions for inventory control and analysis has had a positive impact on both inventory spending and inventory practices. A big part of that has been improved visibility into on-hand stock and actual usage – and the resulting confidence that brings for right-sizing the inventory.

"When we first implemented the new system, we had a ton of extra supplies," Singer said. "We reduced inpatient stock on hand by about $120,000 by adjusting par levels from 30 days to 9 days."

Areas such as the OR, with its costly specialty products, brought even greater savings opportunities. A redesign and inventory reorganization spurred by the PAR Excellence installation in the Waltham, Mass., center's OR yielded an inventory reduction of $100,000. Savings from reducing product expiration in clinical areas have amounted to nearly $400,000, Walsh noted. In addition, the improved supply tracking and insight have PAR Excellence system has given Boston Children's more flexibility to be selective about product consignment arrangements.

"We had a fear here: if we owned it and it expired, we'd have to eat it, and we already had high expiration costs," Walsh said. "Once we showed departments how it worked, they had the confidence to go to purchasing and then go to the negotiating table. We've moved to where we do consignment when it's a win-win with vendors."

PAR EXCELLENCE HIGHLIGHTS

Founded:
1993

Headquarters:
CINCINNATI, OH

Employees:
109

317
Client hospitals and networks

7,000
Departments including:
Surgery, Pharmacy, Nursing, Storerooms ,Central Sterile, Ambulatory, Non-acute

1.5 MILLION
scales installed

Perfect for
COUNTLESS
products including: catheters, CPTs, drapes, forceps, gloves, gowns, linens, medication, respiratory, shampoo, stents, sutures, trocars, wires ***...and more!***