

Health system adopts innovative inventory management solution for PPI and saves \$900,000+



Situation overview

Seeking extraordinary results, Centura Health leveraged its existing point-of-use inventory management system to create an optimized supply chain solution for the handling and delivery of its physician preference items, resulting in a white glove, desktop delivery system that helped reduce errors and product expiration.

“Centura Health is always looking for opportunities to be innovative. This opportunity created an avenue whereby we could lower costs, get product more quickly in the unit of measure we wanted, reduce waste and reduce cost as tangible outcomes,” said Ethan Nkana, a member of the Centura Health team that helped revolutionize the system’s supply chain.

The challenge

The medical device supply chain — especially the movement of physician preference items — suffers inefficiencies resulting from the continued fragmentation of direct shipments from suppliers to multiple receiving points within a single health system. The delivery method also creates a lack of visibility to product movement and storage for both supply chain personnel and clinicians. As a result, Centura Health sought an opportunity to collaborate and devise a system that would mitigate financial risk by creating efficiencies in ordering, receiving, replenishment and storage, and help avoid redundancy and expiration of inventory.

Centura Health

Centura Health is an integrated health care organization providing health care services. Centura Health connects individuals, families and neighborhoods across Colorado and western Kansas with more than 6,000 physicians and 21,000 of the best hearts and minds in health care. Through its 17 hospitals, two senior living communities, health neighborhoods, physician practices and clinics, home care and hospice services and Flight for Life® Colorado, the system is making the region’s best healthcare accessible and affordable in every community it serves.



The solution

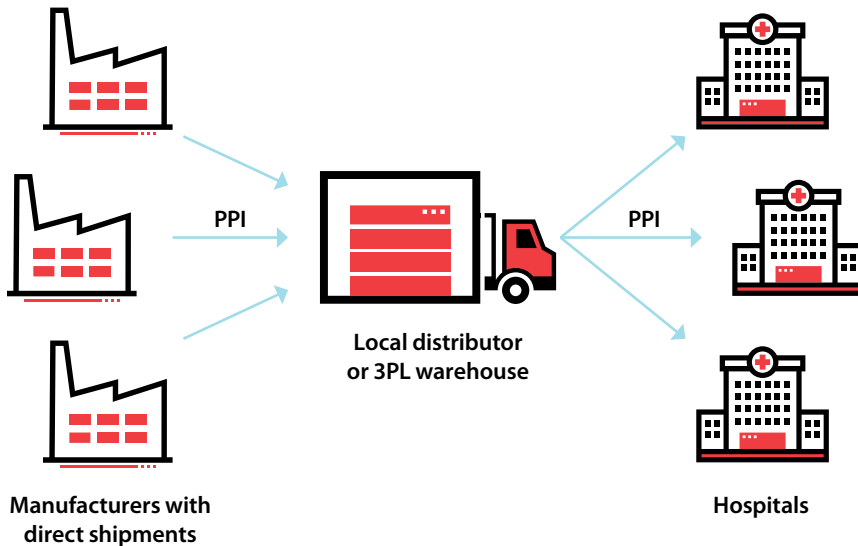
The Centura Health supply chain team sought space and inventory management efficiencies that would allow them to push product to their facilities in lower units of measure and drive systemwide cost savings. They examined the inventory footprint and holding costs across the system's facilities with the goal of reducing both. In doing so, they also scrutinized usage rates and the frequency of product expiration across their locations.

To help manage scope in the 3PL program, the team evaluated product spend and movement in five of its hospitals. Team members sought to identify which direct shipments from manufacturers generated the highest spend and which of those products were ordered in minimum quantities required by the manufacturer. They wanted to investigate the possibility of cost savings and expiry avoidance by ordering those products at a logical unit of measure (LUM).

The team leveraged point-of-use analytics from WaveMark™ Supply Management & Workflow Solutions and studied departmental direct purchase amounts to identify cost savings opportunities. Team members quickly focused on higher-spend procedural areas such as the Cath Labs and Interventional Radiology Labs, knowing that direct shipments to those departments may have been ordered and stocked in a manner that did not facilitate usage before expiration.

Through their analysis, the Centura Health Supply Chain team identified opportunities to move product from early adopter manufacturer partners Cook Medical, Cordis, and Edwards Life Sciences. Through this third-party logistics (3PL) process, manufacturers would ship consolidated Centura Health orders to one, centralized location at a local Cardinal Health warehouse. The shift created significant efficiencies for the manufacturers, who historically had incurred the freight costs affiliated with shipping to each of Centura's hospital locations daily.

Provider 3PL Process Flow



Centura Health and Cardinal Health teams were able to create additional efficiencies for the health system by making lower units of measure available to clinical departments to optimize inventory levels there. They also leveraged the 3PL model to combine physician preference items from the manufacturer and standard medical-surgical supplies at the warehouse into consolidated orders that then could be delivered directly to the appropriate clinical departments. This approach allowed Centura Health to bypass the traditional receiving-and-redistribution process and significantly decrease the number of touches necessary from the Centura supply chain team historically required when receiving, opening, verifying, and routing deliveries.

“At the end of the day, holistically, we as an industry have to try new things. This is an innovative way to do it.”

– **Ramy Hanna**

Senior Vice President of Shared Services and Service Center Supply Chain Management, Centura Health

Hanna is part of the Centura Health team that challenged legacy thinking to outline an innovative approach to distribution.

“There needs to be a realization that this is a process conversation. No one is in need of a tighter supply chain than healthcare.”

– **Mike Hughes**

Vice President, Supply Chain Solutions, Customer Support and Delivery at Cook Medical, a medical device manufacturer and one of the initial participants in the Centura Health 3PL program

The Centura Health team also realized the added benefit of speed of delivery. Orders that historically would have taken two to five business days from the manufacturer instead were coupled with the hospitals' daily deliveries to point of care.

As an added bonus, participating manufacturers and Centura Health generated savings on freight, purchase order and invoicing processes by reducing the number of human touches involved there. To support those efficiencies, the Cardinal Health team provided detailed sales tracing and usage reports, complete with hospital and line item detail, to participating manufacturers.



Creating connectivity

With the help of WaveMark™, Centura Health was able to create visibility of products across the hospitals in its system. With insight to usage rates and replenishment patterns systemwide, the team could easily identify outliers and potential for standardization of vendors and SKUs within a particular vendor's orders. The line of visibility WaveMark™ offers also enabled clinicians and the supply chain team to proactively identify opportunities for intra-system transfers to help avoid product expiration and mitigate waste.

The combination of Centura's inventory management system and its 3PL delivery model also has helped create connectivity between the supply chain and clinical teams that previously did not exist. Leveraging WaveMark™ and radio frequency identification (RFID) technology, the Centura and Cardinal Health teams collaborated to create a system that heightens visibility and facilitates ease of ordering.

In addition to the insights enabled by WaveMark™, the teams were able to integrate the platform into Centura's Lawson materials management system, providing two key benefits. First, the Centura Health team now has a standard and automated ordering practice across its enterprise. Second, these integrations provide additional visibility of inventory for clinicians, including indication of which product is perpetual, direct-from-vendor, from the LUM program, or part of the 3PL program.

The increase in visibility helps Centura make informed ordering decisions based on actual usage and helps increase confidence in product PAR levels. Clinicians no longer fear stock outs and no longer order in excess. They also have an immediate understanding of whether or not their orders have been fully filled, partially filled or if the product is available in the warehouse.

With this level of detailed information shared between supply chain personnel and clinicians, the teams can more easily determine product usage, which also enables them to more easily determine which products may be strong candidates for the 3PL program.



Generating bulk buy opportunities

Informed ordering processes and adjusted par levels quickly created space efficiencies at Centura Health. With increased space available both across the system and at the Cardinal Health warehouse, the supply chain team brainstormed bulk buying solutions that could drive further cost savings across the system.

After careful analysis, the Centura Health Supply Chain team committed to quarterly bulk buy purchases that leveraged economies of scale to drive cost savings not only via bulk buy discounts but also via prompt pay and sales tracing discounts. The move also allowed the Centura team to move away from consignments and manual audits. Further, locations that may not have previously qualified for bulk purchases benefitted from the systemwide savings generated by scale, which is estimated at 15% each quarter on the SKUs purchased this way.



15% savings each quarter on bulk ordered SKUs

for locations that may not have previously qualified for bulk purchases

Outcome

In the initial 12-month Cath Lab program, Centura Health created remarkable supply chain efficiencies that have enabled teams to employ LUM ordering and receive department-specific shipments with speed. By creating and leveraging space efficiencies, the team realized bulk buy cost savings of more than \$900,000. Enhanced supply chain and intra-system visibility promoted efficient product usage and significant waste reduction. All of this was achieved with no interruption to service, and clinical teams have indicated that they appreciate the vastly streamlined approach.

Key learnings

All parties involved agree that a spirit of collaboration and education is necessary among manufacturers, distributors and providers to enable the evolution of the healthcare supply chain. These leading-edge participants recognize that a collaborative approach can define a new frontier in supply chain operations that will enable aggregation and cost savings from end to end.

Participants point to the importance of executive support, dedicated resources and a commitment to focus on long-term results as critical to realizing impactful results and return on investment.

What's next?

Centura Health hopes to expand clinical department, hospital, and manufacturer participation in its 3PL program, realizing that volume and scale are needed to create a universal win for manufacturers, distributors and providers. As the innovative health system works to do so, Hanna is encouraged by the thought that the model is fluid — not fixed. His team has reimagined ways to leverage the system and already has had success with it in preventing mass product shortages and disruption to the system.

Hanna considers the program to be in its early phase but — with the application of a little persistence and grit — looks forward to a healthcare supply chain where consistent, widespread movement of lower units of PPI, a significant reduction in waste and a total lack of disruption are par for the course.

To learn more about 3PL and RFID inventory management solutions, contact:

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More than
\$900,000 bulk
buy cost savings

