

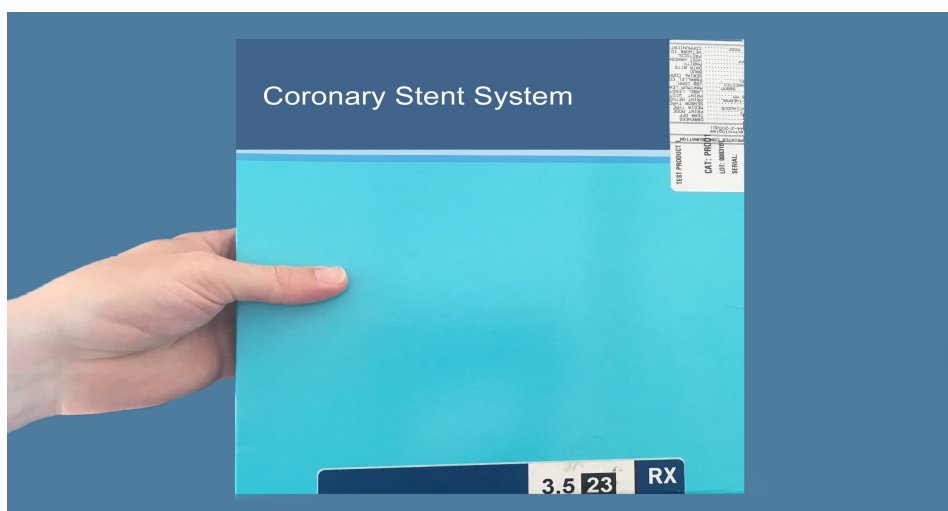


Case Study: Reducing Expiration Costs and Increasing Efficiencies with iRISupply

Improving Interventional Cardiovascular Device and Supply Management

Built on a rock-solid commitment to reshaping heart care in the region, the hospital's Heart and Vascular Center puts the region's most advanced heart and vascular care under one roof. The state-of-the-art facility supports the practice of some of the industry's leading cardiovascular specialists and performs over 11,000 total catheterization lab procedures annually. This includes 5,600 diagnostic heart catheterizations, 2,000 angioplasty/stent procedures, nearly 1,300 peripheral vascular catheterizations and 800 electrophysiology studies and interventions.

Prior to opening the new Heart and Vascular Center, the hospital identified an opportunity to improve the management of the medical devices and supplies being used for interventional cardiovascular procedures. Given the steady growth of their procedure volumes, there was a corresponding growth in the utilization of devices such as drug-eluting stents. In turn, there was also an increased investment required by the organization to purchase and stock these high cost devices and supplies. As such, the hospital identified an opportunity



Facility Type

Community Hospital

Location

Midwestern US

Solution

iRISupply Inventory Management System

Results



to improve their utilization processes and align with targeted operational and financial goals. In pursuing these goals, the hospital identified the following issues as it related to their management and utilization of the devices and supplies:



Increasing Accountability. The current process for storing the devices and supplies was an open-shelf system, offering only memory and paper-based processes for tracking the utilization and billing of items. With the increase in case volumes, these processes opened the door for variances or absences in the documentation of item consumption and billing. In addition, devices were also being misplaced or unaccounted for prior to or after cases were completed.



Reducing Time and Effort. Once a day the department would receive a replenishment of inventories which were transported in from an off-site storage location. To support this replenishment activity, there was a daily requirement to have staff complete cycle counts for the stocking of all materials within the department. Often laborious and time consuming, the manually intensive processes created opportunities for error given the high volume of devices and supplies being stored and utilized among multiple lab locations. If errors occurred and items were not stocked properly, it could lead to 'stock out' incidents, causing procedure delays while items were retrieved from the off-site storage facility.



Streamlining Inventory Levels. With the off-site central purchasing facility, the department fell into a pattern of increasing PAR levels for items to avoid any potential for 'stock out' situations to occur. With multiple sizes and brands for the devices and supplies in use, the result was higher inventories when compared to procedure volume needs. In order to reduce the capital being invested in the additional inventory, the organization sought more precise data to track utilization patterns and optimize PAR levels, thus minimizing carrying costs for inventory.



Improving Efficiency for Expiration and Recall. With the increasing utilization and stocking of time-sensitive items such as drug-eluting stents and items experiencing recalls such as implantable pacemakers and implantable cardioverter defibrillators, process improvements were needed to identify the quantity and location of these items in a much more timely and accurate manner. Aside from the clear patient safety issues associated with the expiration and recall incidents, the hospital estimated it was incurring an annual expense of \$250,000 to \$300,000 by inadvertently allowing items to expire on the shelves.

iRISupply eliminated the need for most paper-based and barcode-based processes. We immediately realized a significant improvement in our ability to manage the storage, utilization and tracking of high cost medical devices such as catheters, stents and pacemakers.

Director of Finance and Business Operations

Delivering Value through Technology

After implementing the iRISupply system within the cardiac catheterization and electrophysiology laboratories, the hospital started to achieve their desired results for improved device and supply utilization by tracking access to the inventory at the item level. The controlled access to the devices and supplies allowed for improved staff accountability for utilization by tracking access to the inventory at the item level. This included reports and analytics detailing staff access to items, cases for which items were retrieved, and items returned following case completion.

The hospital also saw a marked reduction in the time and effort needed to manage the department's

Automated Expiration Management Workflow



Medical device approaches expiration

Expiration alert is generated by iRISupply software

Real-time alert is sent to your phone by iRISupply

Medical device is located by staff and used in a case prior to expiry or swapped with the vendor

inventories. As an example, prior to implementing the system two to three staff members were involved in quarterly efforts to document inventory levels within the department. Often, the time required to record the category number, description, and quantity levels of all items within the department was significant. With iRISupply, the hospital had access to an accurate, real-time display of inventory levels at the touch of a button, eliminating the time spent with physical counts. With precise reporting capabilities, detailed quantity and PAR level information were available immediately to support replenishment needs and avoid any 'stock out' incidents.

Inventory patterns were streamlined as PAR levels were adjusted to accurately align with case volumes. Through detailed analytics from iRISupply that provided accurate utilization reports down to the item level, the hospital enhanced their ability to look at utilization patterns for all items, and in particular, their sizes. As an example, the utilization reporting revealed a need to increase daily PAR levels for some stent sizes. With this heightened visibility to usage patterns and inventory levels, it has been an additional contributor to avoid any 'stock out' situations.

Lastly, because the system is storing products at the item level with detailed information including expiration dates, the hospital has been able to leverage the data analytics within iRISupply to better manage the expiration of items. With regular reports that identify items nearing expiration along with automated e-mail messages to notify staff of approaching expiration of products, the hospital lowered annual expiration expenses from \$250,000 to \$300,000 to \$1,000 to \$2,000.

Example of an Automated Expiration Lead-Time Email Alert

Mobile Aspects Expiration Lead Time Alert

Jul 11 2017 3:10AM

S.No	ItemID	Catalog #	Lot #	Location	Expires	Lead Time(Days)
1	49972	10800703	MGPC290	CAB 2, SHELF 1	07/31/2017	19
2	57016	70-5160	TC04	CAB 5, SHELF 3	07/31/2017	19
3	57017	70-5160	TC04	CAB 5, SHELF 3	07/31/2017	19
4	57018	70-6160	TC04	CAB 5, SHELF 4	07/31/2017	19
5	57019	70-6160	TC04	CAB 5, SHELF 4	07/31/2017	19
6	52177	CRUOS106	GFZF2409	CAB 3, SHELF 2	07/31/2017	19
7	2640	CT2020	0000478460	CAB 1, SHELF 2	07/20/2017	8
8	2641	CT2020	0000478460	CAB 1, SHELF 2	07/20/2017	8
9	2643	CT2020	0000478460	CAB 1, SHELF 2	07/20/2017	8
10	2644	CT2020	0000478460	CAB 1, SHELF 2	07/20/2017	8
11	48452	G05576	5083302	CAB 2, SHELF 3	07/31/2017	19
12	48453	G05576	5083302	CAB 2, SHELF 3	07/31/2017	19
13	62182	G38480	C1273231	CAB 4, SHELF 2	07/12/2017	1
14	54475	GM1833	150819	CAB 3, SHELF 3	07/31/2017	19
15	54031	GR3506	150817	CAB 4, SHELF 1	07/31/2017	19