Hospital from Texas reduces its OR inventory

and gains real-time reporting tools

Success Story

With a long tradition of providing quality care, this **500-bed** tertiary care teaching hospital admits over **14,000 patients** and treats **245,000 outpatients** every year.

The **Challenge**

The hospital's OR was seeking to resolve a number of inventory management issues.

- Manual and fragmented supply chain processes requiring the involvement of multiple employees and leading to errors and lost times
- High inventory levels and value
- Absence of automated reporting tools to allow management sufficient oversight and control of inventory
- Multiple and dispersed storage locations, resulting in inefficient staff movement
- Numerous work disruptions by material management staff filling urgent requisition orders

The **Objective**

Metric objective	**Target**
Reduce inventory value by:	**25%**
Reduce supply wastage by:	**3%**
Reduce time staff spends on replenishment activities by:	**20%**
Increase storage capacity by:	**20%**

One final criterion, a crucial one for the hospital, stipulated that the solution had to provide real-time statistics and tools to help supply chain managers gain greater control and oversight of the hospital's inventory levels.

"In less than one month, the useIT RFID inventory management system well exceeded our expectations for each of the specific metrics we had established."

Chief Financial Officer

The **Solution**

The hospital opted to implement the useIT RFID inventory system in their OR Core to streamline inventory management processes, reduce inventory levels, and provide real-time reporting.

useIT™
Point of Use Management

How **it works**

useIT RFID inventory management system leverages the kanban replenishment practice which begins with an established quantity of a given item divided into two batches and stored in primary and secondary compartments of a single storage module. When the primary compartment is empty, clinical staff transfer its identification tag (which contains an RFID transponder) to a wall-mounted smartpanel located near the storage unit. They then begin using items from the secondary compartment, which holds a set number of days' worth of inventory. Placing the primary compartment's tag on the smartpanel triggers an automated replenishment request before critical supply thresholds are met. The system transmits the request to a middleware application and, prompted by customizable business rules, onward to the hospital's material management information system, which then generates a pick list for stock items or a requisition for direct purchase items. During their delivery rounds, material management staff transfer the remaining supplies to the primary compartment and replenish the new supplies in the secondary one. This ensures stock rotation and helps prevent stock wastage due to expiration.

The **Results**

40% reduction in time spent on replenishment activities

With the solution, material management personnel spend less time on replenishment activities. The hospital was seeking a 20% time reduction. Once again, the solution surpassed this target, and the hospital now enjoys a 40% time reduction. This translates into more than 17 hours per week, and the time gained is being put to better use.

"Rush orders occurred an average of seven times a week for the OR alone and drained material management personnel time. With the solution, demand capture is now automated through the use of RFID technology, and the status of inventory and demand is available in real time. This has virtually eliminated disruptive stockouts and urgent orders and has reduced the number of trips material management personnel make to the OR. As an additional benefit, replenishment schedules have now been arranged so as to avoid disrupting clinical activities.**"**

Supply Chain Director

42% reduction in inventory value

As part of the implementation process, supply consumption was compiled, analyzed, and optimized par levels were established. This has resulted in a massive reduction in inventory value of 42%, greatly surpassing the targeted 25%, due in part to the elimination of excess inventory.

useIT RFID inventory management system allows for the precise and dynamic management of stock levels. Because cumbersome and error-prone manual counting has been replaced with an automated and highly accurate demand chain, just-in-time inventory management is achieved. With replenishments based on actual consumption, disruptive stockouts and costly urgent orders have been almost completely eliminated as have hoarding and overstocking.

The **Results**

Supply wastage cut to 3%

Like many hospitals, there were issues with what is called shrinkage, which designates the loss of inventory and therefore of money. Shrinkage is usually caused by expired products; poor knowledge of inventory levels; replacement of products with new ones; products no longer used following the departure of surgeons; stolen items; and items discarded due to packaging damaged as the result of poor storage conditions.

Recently published studies pertaining to hospital inventory management indicate that without effective inventory control, shrinkage can account for 8% of the total distributed volume of supplies. The leading practices and automation technologies applied resulted in improved inventory control and data reliability. These, along with the built-in stock rotation features, brought shrinkage at the hospital down to a minimal 3%.

43% increase in storage capacity

"Supplies were not only stored in the main OR supply room; we stacked them in what we call the "West Wing" and even in some of our offices. We lost valuable time locating needed supplies.**"**

Director, Surgical Services, OR

The useIT RFID inventory management system solution use RFID smartpanels and high-density storage equipment modules. As a result, the enhanced inventory environment easily adapts to changing conditions and improves ergonomics. The hospital's objective was to reduce the storage footprint by at least 20%. In fact, the lower inventory levels and effective storage solution decreased the footprint by a full 43%. In addition, supplies need no longer be stored in distant locations. With a well-organized inventory, fixed supply locations, and a visual location system aligned with workflows and clinical procedures, OR nursing personnel spend less time searching for and collecting supplies.

Resourceful reporting tools enable fact-driven optimization and real-time feedback

Generating dashboard data for fully customizable business analytics reports, useIT provides evidence-based optimization tools and real-time feedback to drive cost reductions on an ongoing basis, including reports easily extracted in Excel spreadsheets for analysis and sharing.

"All of our inventory management processes used to be manual. In order to prevent products from expiring, our staff would regularly read the expiry dates on the supplies' labels and list soon-to-expire products on a sheet we pinned to the storage unit. Not only was this system time-consuming, it also carried the risk of error. Today, our system has a built-in stock rotation feature, which greatly reduces the risk of products expiring and going to waste."

Stores & Distribution Manager

"The groundwork and training enabled us to implement the solution smoothly and in remarkably little time. In less than one month, the solution had exceeded our expectations for each of the specific metrics we established. The solution has impressed our clinical and supply staff and has obtained buy-in from both groups, and the project is already tracking for a fast ROI."

Chief Financial Officer

Before

Inefficient fixed shelving impeded visual and physical access to supplies and hampered stock control, thus wasting valuable time and space and increasing the risk of products expiring.

After

The vertical high-density storage system, equipped with drawers that can easily be pulled out to access their contents, provides an organized system, making it easy to locate supplies. It also maximizes the capacity of the storage footprint.

Placing the RFID tag on the smartpanel located in the storage area requires only a few seconds per user per shift and feeds the demand chain based on accurate, real-time consumption.

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