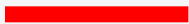




SUCCESS STORY

LUM model at  
**Concord Hospital sees  
performance boost**  
at the point-of-use



# About **Concord Hospital**

Concord Hospital, a regional medical center, is the second-busiest acute care hospital in New Hampshire, with 295 licensed beds and 238 staffed beds.

For 10 consecutive years, Concord Hospital has been recognized as one of the “most wired” medical facilities in the U.S. by Hospitals and Health Networks magazine, the journal of the American Hospital Association.

## The Challenge

Concord Hospital’s supply chain leaders have rigorously advocated for Lean methodologies and efficiency through innovation, which prompted the hospital to adopt a Low Unit of Measure (LUM) model for supply replenishment. However, to effectively manage just-in-time (JIT) inventory levels, the organization sought to improve inventory management at the point of use, as well as data availability for its LUM provider.

The supply chain transformation now underway is in response to the medical center’s initiative to streamline its logistics activities and increase the accuracy of its supply replenishment processes. The goal is to recover valuable resource time, optimize inventory levels, and increase supply usage visibility as it relates to internal efficiencies as well as the impact on the LUM program.

## The Scope

As a starting point, Concord Hospital leaders identified 24 departments with multiple inventory locations as the highest-impact areas for the initial implementation of the point-of-use inventory management system. The focus would be on med-surg general supplies from their LUM provider and all high-cost items, such as consignment inventory and medical devices used in specialty areas such as the OR, Cath Lab, and Radiology.





## The Solution

Concord Hospital conducted a thorough assessment of the market and evaluated inventory solutions from vendors that best fit with their Lean initiatives. The team ultimately selected the Tecsys point-of-use inventory management solution to manage the replenishment of general low-cost supplies and to track and trace the consumption of high-cost items in specialty areas. They prepared a detailed deployment plan and ROI expectations using precise evaluation criteria to gain Board approval to move forward with the project.

# Solution

## General Supplies Management

Today, Tecsys' RFID-enabled two-bin replenishment system optimizes batch-based replenishment processes at Concord Hospital while minimizing both clinical and back-office staff involvement. The two-bin Kanban solution incorporates cutting-edge automation technology designed to facilitate just-in-time (JIT) inventory management. It also controls inventory levels and turnover while helping to prevent expired products from being used in treatment. The solution works to ensure each department can maintain reliable stock levels and accurate demand assessments. It also eliminates manual counting and greatly reduces time-consuming clinical and support staff interactions with the system.

## Specialty Item Management

Through the innovative use of leading-edge RFID and barcode technology, the Tecsys point-of-use solution allows Concord Hospital to track and trace high-cost supplies and consignment items from their receipt to their utilization during a procedure. It automates the management and replenishment of products requiring item-level traceability by facilitating data capture and providing real-time tracking of product movement. This gives staff complete visibility with non-intrusive integration into existing workflows and IT environments to ensure compliance and interoperability.

# The Results

A before-and-after analysis revealed the Tecsys solution has delivered remarkable gains relating to productivity, supply costs, and storage space.

## More than 5,800 hours returned in clinical time

The system has greatly improved inventory availability, reducing the time clinicians spend on supply-related requisition activities for non-stock and consignment items. They now spend far less time searching for and picking supplies and managing stockouts and errors.

## 30% reduction in on-hand inventory value

As part of the transformation project, Concord Hospital conducted an aggressive inventory reduction exercise, an initiative aimed at rendering its LUM program as lean as possible. With the Tecsys solution, the Concord Hospital supply chain team has reduced on-hand inventory for their PAR locations for general supplies, representing a \$285,000 savings—despite managing 5% more products.

## Decrease in cost of wasted stock – \$150,000 in year one

Product shrinkage or waste is usually caused by expired, damaged, or obsolete items, representing up to 8% of the total distributed volume of supplies. This is often due to excess inventory, slow turns, and inferior, top-up put-away practices. The Tecsys system has enabled Concord Hospital to reduce the incidence of nonconforming product, saving between 1 – 2% on associated costs. In fact, during the first year of using the system, the facility saved \$150,000 in loss due to waste.

- Expiration management: Nonconforming product has been drastically reduced, and the team has been able to maintain these rates.
- Recalls: The system has helped with product visibility throughout the organization.

**5,800**  
hours

**30%**

Reduction in on-hand  
inventory value ↓

**\$150,000**

Decrease in cost of  
wasted stock ↓

# The Results

## 53% reduction in materials management time spent on replenishment

Concord Hospital's materials management team has been able to increase service levels by virtue of the solution's automation, which has reduced the amount of time spent on replenishment by 53 percent. Time-consuming and error-prone inventory demand capture rounds have been eliminated, enabling materials management to focus on accurately and efficiently replenishing departments based on real-time consumption statistics.

## 25% space savings

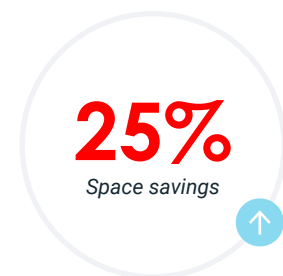
Implementation of the Tecsys system along with vertical, high-density storage has reduced storage space requirements by 25% and enabled the team to manage a 5% increase in products. The new layout and ergonomics have set the stage for well-organized inventory, fixed supply locations, and a visual location system aligned with workflows and clinical procedures. As a result, clinical personnel spend less time searching for and collecting supplies.

## Invaluable real-time data

Concord Hospital has benefited immensely from the fully customizable business rule settings and reporting engine, which has been critical to the success of its LUM program. Automated response decisions keep reliance on manual processes to a minimum, while consumption data provides key performance indicators to enable informed decision-making.

### The organization now has:

- Accurate, automatic demand assessments for the JIT system
- A more accurate record of on-hand inventory and replenishment needs
- Real-time analytics that create the opportunity for continuous improvement
- Automated requisitions for the LUM provider



## About **Tecsys**

Since our founding in 1983, so much has changed in supply chain technology. But one thing has remained consistent across industries, geographies, and decades – by transforming their supply chains, good organizations can become great.

Our solutions and services create clarity from operational complexity with end-to-end supply chain visibility. Our customers reduce operating costs, improve customer service, and uncover optimization opportunities.

We believe that visionary organizations should have the opportunity to thrive. And they should not have to sacrifice their core values and principles as they grow. Our approach to supply chain transformation enables growing organizations to realize their aspirations.



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