

Embracing “Lean”

Mercy Hospital Saves Millions

BY CHARLES HODGE, PRESIDENT AND CEO, BLUEBIN, INC.

If you're in the field of supply chain management, you've likely heard all about lean methodologies, which are designed to maximize customer value while eliminating waste. And while lean methodologies have been used in the manufacturing and retail industries for years, the concept has only recently made its way to the healthcare industry. Lean supply chain methodologies are now being deployed in major healthcare facilities with impressive results. Mercy Hospital and Medical Center in Chicago provides an excellent example of just this—lean at work in a hospital setting.

Mercy Hospital: Finding Its Way to Lean

In 2011, Mercy was struggling with a mounting financial problem. The hospital had served as the chief teaching hospital in Chicago for more than 150 years, and its antiquated operational structure required radical improvement at many levels. One important area for improvement was the supply chain replenishment system.

Among the major supply chain issues at Mercy were the overused storerooms and a fragmented supply chain. The materials team only serviced inpatient floors, meaning that other specialty services, like surgery and the laboratories, managed their own supplies. This fragmentation equated to constantly over-ordered items, which were often lost within overcrowded storerooms. Nurses and technicians were spending an average of 90 minutes per day ordering, searching, and managing supplies. In addition to wasted time and expense this created, these issues made compliance to product standards problematic.



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To remedy this, Mercy assembled a team that quickly determined an end-to-end solution—rather than incremental improvements—was the best way for Mercy to revamp its supply chain system and refocus its clinicians on patient care rather than managing supplies. Mercy knew the solution would need to be easy to implement and intuitive to use. Rick Cerceo, executive vice president and chief operating officer at Mercy, discovered the winning solution—lean supply replenishment system.

Implementing the Solution

The supplier's lean solution is based on the *Kanban* method, which was originally developed in the automotive manufacturing industry. *Kanban* relies on usage patterns and visual cues to make supply chains more efficient. For the supplier, this equates to stocking two bins with the needed amount of the supply, based on an analysis of typical usage rates, reorder lead times, and other key factors. When a bin is empty, it is moved to a separate shelf, and the second

bin is pulled forward. The empty bin is collected by materials handlers and sent to the central supply office, which scans its unique bar code to initiate a new order.

The solution also incorporates analytics software on the back end that enables Mercy to easily see how and when

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supplies are used, identify issues, and modify supply quantities and orders to ensure supplies are at optimum levels. For example, Mercy has 42,000 bins in use at one time, and the system’s backend technology allows Mercy’s administrators to see exactly which bins need attention on a given day. And, the dashboard tracks performance (i.e., order lead times, delivery times, cost, product standard, anomalies), which helps Mercy manage vendors and overall compliance.

Mercy implemented the solution smoothly; the largest barrier was helping the clinicians adapt to a change in their daily routine. But the clinicians quickly recognized the benefits of the lean supply replenishment solution and how much it would ultimately improve their work environment.

Millions of Dollars, Thousands of Hours Saved

Mercy’s success highlights how much lean supply chain management can impact a hospital’s bottom line. Since deploying the system, Mercy has saved more than

\$1 million a year in waste and excess supplies. The hospital has also saved more than 28,000 clinical hours that were previously spent searching for supplies and has reduced its bulk storage space by nearly 50 percent. Mercy also cites the new system for improving the productivity of supply technicians and materials handlers, saving labor hours equivalent to 30 percent of their materials handling staff.

And Mercy’s savings continue today. For example, Mercy made a \$70,000 cost-reduction in recent months—a full two years after implementation. For healthcare executives who are considering how to improve their own organizations, Mercy’s tremendous success provides an example of how investing in a lean supply management solution can have a significant impact across the organization. 



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