

2-Bin Kanban, an innovative approach to inventory management

Bellevue Medical Center case study

In November 2012, an innovative 2-Bin Kanban supply chain system was piloted at Bellevue Medical Center. Based on lean six sigma principles, this solution significantly reduces the time clinicians spent in the storeroom — freeing clinicians to spend more time with patients, rather than engage in supply chain activities.

An innovative collaboration

Cardinal Health has been a close partner of Bellevue Medical Center since the hospital opened in May of 2010. As a forward-thinking organization, Bellevue asked Cardinal Health to consider Bellevue an “innovation lab” for testing innovative supply chain solutions. At the same time, Cardinal Health was looking for ways to apply the kanban concept to healthcare supply chain. Because both organizations have lean expertise, it was easy to translate how beneficial the kanban system would be for the Bellevue Medical Center supply chain. Buy-in from Bellevue leadership was obtained and plans for the kanban pilot began.

Clinical involvement in supply chain

Prior to implementing the Cardinal Health 2-Bin Kanban Inventory Management Solution, the environment of the Bellevue supply chain was stable, however clinicians were conducting multiple supply chain activities to ensure they had the right products at the right time. Clinicians at Bellevue would need to check out supplies from cabinets to ensure compliancy reporting was accurate, as well as other activities that took their time away from patients. According to Brandon Quindt, former Director of Support Services for Bellevue, “We were doing all these activities at a huge cost to nursing staff time. We had a good program, but it was riddled with pain points with clinical involvement.”

Bellevue Medical Center results

48% less time for clinician to obtain supplies

87% reduction of clinician time in supply room

48% less time to put away supplies

61% reduction of inventory on hand

100% reduction of the cycle counting function



Pilot yields success

The first thirty days of the pilot were dedicated to standing up the solution and fine-tuning to meet customer targets. Post thirty day implementation, there was a seamless transition to the new system and the benefits were readily apparent to the clinical staff. Lisa Walters, Director of Nursing at Bellevue said, "The first time the materials manager came to explain the two-bin Kanban system to the nurses, he got a round of applause, which was quite frankly the first time I've ever heard a materials manager get applause from nursing when they were describing a change in a system."

According to Quindt, "If we attempted to go back to the old model, we would have a riot on our hands. They really like the fact that they can just grab and go, and not tie up their day doing activities that aren't driving patient satisfaction."

A recently conducted clinician satisfaction survey at Bellevue reiterates the success of the 2-Bin Kanban solution, with clinicians agreeing that the system:

- Has made their job easier and it's easier to locate the supplies they need
- Saves time over the previous scanning system
- Enables clinicians to spend more time with patients
- Is preferable to the previous scanning system

Source: Bellevue Medical Center nurse satisfaction survey, July 2013

Moving forward

Bellevue Medical Center and Cardinal Health continue their collaboration with the goal of achieving even more supply chain optimization. According to Levi Scheppers, Chief Financial Officer, "When I look at Cardinal Health as a partner, I don't use the term partner very lightly. I think they've helped us in so many different ways, getting this hospital open, up and running, delivering care to the patients. Since day one, I think that cemented our relationship as a partner, and they didn't disappoint."

2-Bin Kanban was originally implemented in the med-surg department for Bellevue, which represents 15 percent of the hospital's total transactions. Bellevue is planning to integrate 2-Bin Kanban to their Labor and Delivery, Emergency Room and the Operating Room units. According to Lisa Walters, Director of Nursing, "The Cardinal Health 2-Bin solution far exceeded my expectations, and the fact that the other departments were asking for it before it was introduced to them tells me it was the right thing to do."

"They really like the fact that they [nurses] can just grab and go, and not tie up their day doing activities that aren't driving patient satisfaction."

Brandon Quindt

Former Director of Support Services,
Bellevue Medical Center

How it works

The Cardinal Health 2-Bin Kanban solution combines lean management techniques with proprietary cloud-based software that "learns" from your consumption patterns in real-time, calculating correct bin quantities as changes in patient census, clinical practice and seasonal factors occur.

