

# HEALTH PLAN FOR MEDICAL SUPPLIES MANAGEMENT: A LEAN SIX SIGMA/KAIZEN EVENT SUCCESS STORY

Children's Hospital Streamlines Operating Room Inventory Management System



**/\$40k**  
*In cost savings due to reduced par levels and increased inventory turns*

A leading children's hospital saw an opportunity to improve its operating room (OR) medical supplies inventory management process, which required excessive storage space and drove additional costs.

The Canon Business Process Services Best Practices team was deployed to conduct a Lean Six Sigma/Kaizen Event, a quick and efficient improvement project focused on a single process. The project was designed to create a blueprint for a more cost-effective and improved inventory management system.

## THE CHALLENGE

As part of its ongoing commitment to exceptional patient care, the hospital examined its OR inventory management process and determined that it was experiencing waste by carrying excess stock. At issue were par levels (levels at which stock items are replenished) for 48 endoscopic mechanical (endo-mechanical) items that were not based on historical usage, but on unsubstantiated requirements set by the previous vendor and the clinical staff. Additionally, physician preference items were stocked that were no longer applicable. Addressing these inefficiencies could reduce both costs and storage space.

## THE SOLUTION

The Canon Best Practices team worked with the hospital to set objectives for the Kaizen Event project, which included mapping out the current state for OR supplies ordering, picking and storing inventory. Additionally, the team would manage the project scope by focusing on the 48 endo-mechanical supplies that were stored in multiple locations.

Canon scheduled a review of the medical supplies storerooms and the OR medical supply and return carts. Initial observations from the walkthrough identified several improvements that could be implemented. These included utilizing clear bins versus blue-colored bins to store supplies (i.e., it was harder to see items stored in the blue bins), better organizing the return carts where unused medical supplies were often placed in a haphazard fashion, and creating uniform labeling on supply bins, which would help avoid mistakes related to picking, parring and reordering.

- ▶ An initial inventory review of the 48 endo-mechanical items to identify potential par level changes and cost savings based on reducing inventory. The review resulted in changing the par levels for 40 items, which will yield \$42,000 in savings and reduce inventory.
- ▶ Execution of a “5S” plan (sort, stabilize, shine, standardize and sustain) on the supplies storeroom and OR supply carts to optimize use of these areas. This task resulted in better organization and labeling of medical supplies. Improvements in sorting and storing items in the medical supplies storeroom, as measured in a time trial to pick 10 items for a specific surgery case, resulted in a 56% decrease in time and decreased errors from 30% to 0%.
- ▶ Creation of a continuous performance improvement (CPI) plan to be executed over subsequent months spanning numerous activities overseen by designated hospital Kaizen Event team members.
- ▶ Initiation of a communications plan to provide project updates to key hospital internal audiences. The plan was designed to communicate the importance of the project, as well as recent and pending activities including timeline, key decisions made, changes requested, opportunities for involvement and more.



**Improvements in the medical supplies storeroom resulted in a 56% decrease in time and decreased errors from 30% to 0%.**

## THE RESULT

- ✔ Initial inventory review of 48 endo-mechanical items resulted in more than \$40,000 in cost savings due to reduced par levels and increased inventory turns through increased ordering.
- ✔ Implementing the 5S plan resulted in significant improvements in the organization and storing of items in the medical supplies storeroom and OR medical supply carts. These improvements freed up shelving space and reduced the time and errors associated with picking items for surgery cases.
- ✔ Creation of a CPI plan with deliverables, due dates and responsible owners will improve the change management process being initiated over the coming months.
- ✔ Collaboration on the project fostered better communication and appreciation of the roles and responsibilities among the hospital groups involved in the event.
- ✔ The internal communications plan is helping to garner the support and involvement of key groups and departments that are impacted by the improvement plan.

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