

## 1. Problem Statement

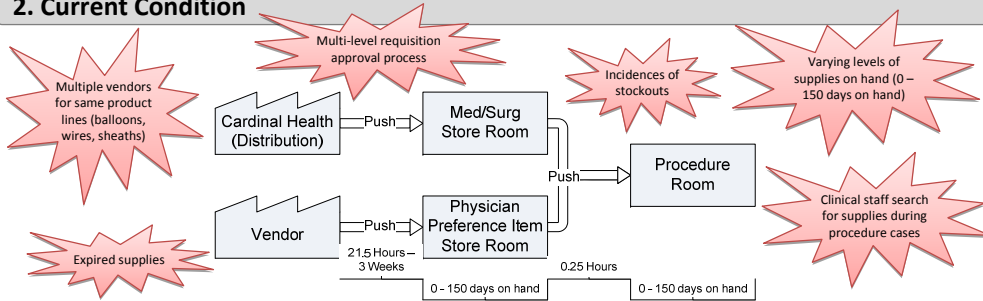
The Catheterization Lab performs ~4,000 procedures per year and expends ~\$9.1M per year in supplies. Optimizing material flow for these procedures is critical in order to deliver the right supply to meet the clinical needs of the patient, in the right amount, at the right time and place. Challenges in the Cath Lab include:

- Demand (patient volume) varied by time of day and day of week
- Sizing of supplies needed unknown until procedure begins
- Semi-emergent atmosphere

**Project Sponsors:** Team Leads: Project Team:

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## 2. Current Condition

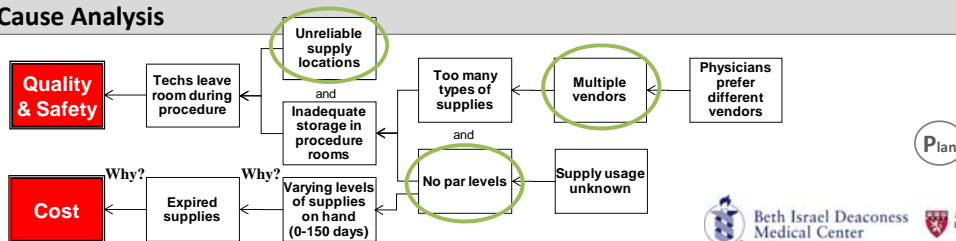


Problems	Effects
1 Expiring supplies	↑ Cost, wasted time checking expiration date
2 Varying levels of supplies on hand – ranging from 0 to 150 days on hand	Over-ordering and hoarding of supplies, Expired supplies
3 Varied rate of usage for 1800+ unique items	Reorder points unclear leading to over and under ordering
4 Staff searching for supplies	Wasted time spent away from the patient bedside
5 Multiple vendors for same product types	More inventory to manage, ↑ Searching

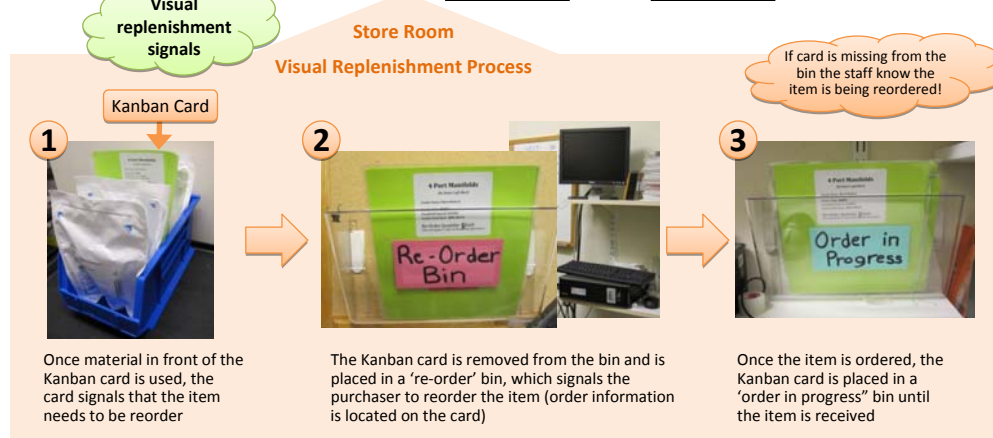
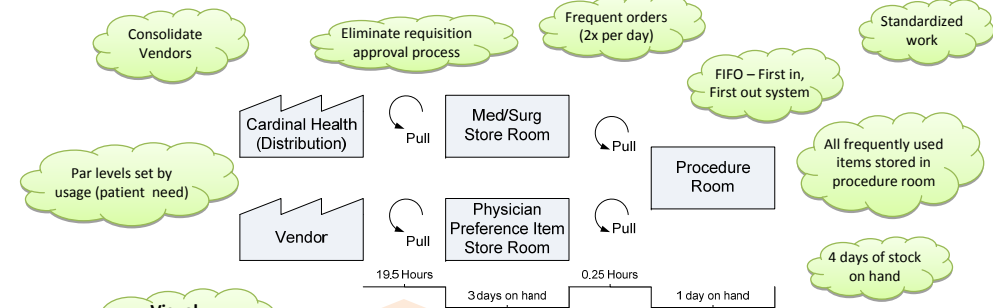
## 3. Measurements

Metric	Baseline	Goal	Result
Inventory (Days on Hand)	0 – 150 days	4 days	4 days for pilot items (overall results TBD)
% of Expired Inventory	7%	< 2%	TBD
FY10 budget to actual supply savings	–	–	\$972K (\$8.29M to \$7.32M)
FY11 supply budget reduction	–	–	\$808K (\$8.29M to \$7.48M)
Staff walking distance (Interventional cases)	0.88 miles per case	50% reduction	0.48 miles per case

## 4. Cause Analysis



## 5. Proposed Countermeasures



Countermeasures	Results
1 Specified supply par levels & reorder points, FIFO	↓ Cost, ↓ Non-value added time
2 Kanban – visual signal to reorder supplies based on usage & patient need	No overstocking, No stockouts
3 Multiple types of kanbans (2 bin, 1 by 1 ordering) depending on the rate of usage	↓ Inventory on hand, Sustainable system
4 Standard locations for supplies located at the point of use	Reliable supply locations, ↓ Searching
5 Consolidate vendors – negotiation between MDs	↓ # of Unique items

## 6. Implementation Plan

What	When	Status
Pilot replenishment process	1/31/11	In process
Implement replenishment process for high use items	2/4/11	Planned
Implement replenishment process for low use items	3/31/11	Planned

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