Improved Capacity by Reducing OR Turnover Time

Overview
Muncy Valley Hospital is located in Central Pennsylvania near Williamsport and is one of three hospitals in the Susquehanna Health System. The hospital has three operating rooms and will be adding a third general surgeon in the near future. With the addition of another surgeon, all three operating rooms will be functioning five days a week, thus necessitating the need for a thorough analysis into the daily operations of the operating room area. We have been asked to focus much of our efforts on minimizing turnaround time and studying the relationship between recovery time for particular surgeries and labor costs.

Objectives
1. Analyze the current schedule of surgeries and turnovers at Muncy Valley Hospital
2. Identify causes of delays throughout the different hospital procedures
3. Evaluate the medical tool inventory management system in place
4. Identify changes to implement that will better organize Muncy Valley Hospital
5. Make recommendations to help Muncy further increase their efficiency and reduce waste.

Approach
- Spoke with hospital officials to determine Muncy Valley Hospital’s needs
- Made several trips to site to observe and collect data on turnover time
- Broke turnover process into major tasks to estimate time for tasks.
- Created Spaghetti Diagrams to visually evaluate distance walked to complete a task.
- Examined where and in what process areas time delays were occurring
- Made recommendations to improve turnover processes
- Set up small scale implementation of 5S within OR
- Created Handout to help hospital continue 5S
- Outlined detailed recommendations for scheduling analysis, 5S, and Kanban card system.

Outcomes
- Creating a designated schedule of two people, completing certain tasks, will reduce turnover by 15%
- By changing cart set up we estimate we can reduce turn over time by an additional 10%.
- Created demo and handout on 5S that we estimate will reduce turnover 15%.
- Created time sequence diagram to help Muncy track delays and increase efficiency.
- Combined we estimate these changes will reduce turnover time by 40% and will continue to reduce it as hospital practices become more efficient.
- This will increase the level of care and efficiency of procedure by eliminating unnecessary waiting before surgery and increasing available time for recovery after surgery.