

Case Study

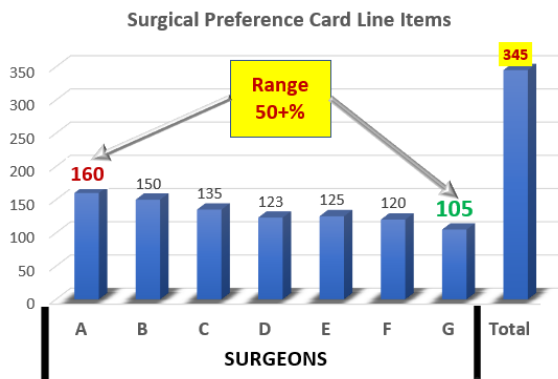
A Central United States Surgical Hospital

Situation

A surgeon-owned surgical hospital located in the Central United States wanted to improve their operational capacity for orthopedic program. There was a demand for nearly 10,000 surgeries per year, but the hospital struggled to meet that demand with current resources. The hospital leadership asked us to identify efficiencies without the need to hire more personnel or invest in capital equipment.

Assessment

During an initial assessment, consisting of staff interviews, document and metric reviews, data analysis, and process observations, the team discovered opportunities. An analysis of the surgical preference cards found a variance rate of 50+% of items pulled of surgeons performing the same procedure. One surgeon had 105 items pulled, while another had 160 items pulled.



The extreme variances between surgeons contributed to a on hand stocking requirement for each procedure that tallied up to more than three (3) times the amount

than a single preference card pick list. This contributed to clutter and expirations.

The surgical throughput constraint was the operating room, who only had the annual capacity for 9,200 procedures versus the demand for 9,800. Operating room turnover (surgeon down time) for orthopedic cases easily exceeded 70 minutes. Pre-op had a capacity that exceeded 12,500 / year which exceeded the capacity of the operating room. Therefore, it was common that pre-operative staff completed their tasks relatively quickly, creating excessive wait times for patients while the operating room staff scrambled to complete their work.

There were excess supplies and instrument trays in the Sterilization Process department that contributed to clutter and lengthy processing times. Most notable, there was an excess number of peel packs occupying two rolling carts.

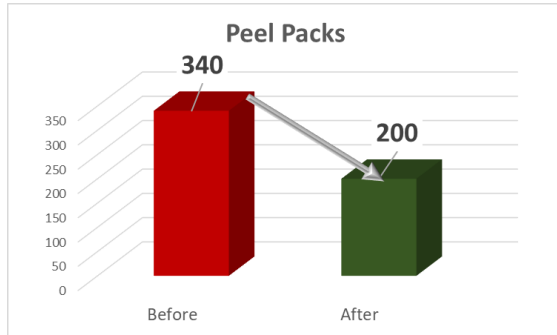
Initiatives

Caregivers participated on teams with the focus on implementing solutions. A leadership team guided the efforts of the implementation teams by facilitating collaboration and managing any needed escalations, such as the purchase of capital equipment.

The teams embraced 5S (Sort, Straightened, Shine, Standardize and Sustain), a housekeeping method designed to make the work environment easier to operate in. Their first activity reduced peel packs down by more than 40%. The supplies that were sorted out were used to form a desperately

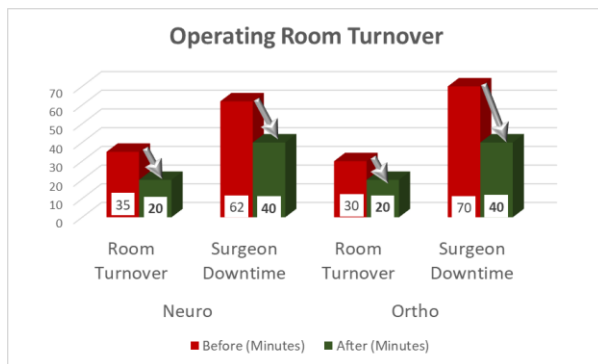
Operating Room Optimization & Surgical Preference Card Simplification

needed surgical instrument hand tray, saving the organization \$7,500.

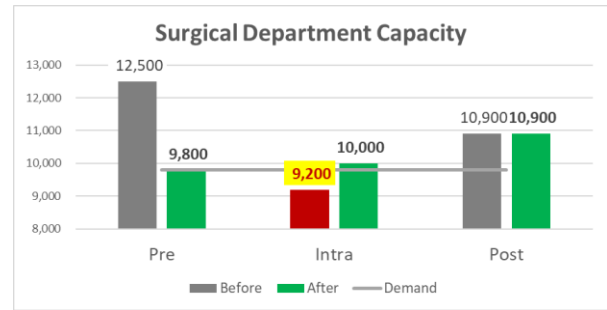


Other 5S initiatives focused on the simplification and standardization of pick lists on the surgical preference cards. The efforts resulted in an estimated \$65,000 savings in supply costs. Implementation teams classified items on the picklist designated for removal based on usage, obsolescence etcetera. The surgical staff proposed changes to surgeons, and they drew on their competitive nature.

The operating room initiatives focused on load leveling and reduction on downtime of the operating room between surgical cases using a methodology called quick changeover. The efforts, which included dedicating teams to different operating rooms, sequencing of activities, and simplifying of worked, reduced downtime by 30%.



Additional operating room improvements involved load leveling. One initiative moved the IV insertion from intra-op to pre-op. This, along with other efforts, increased operating room capacity by 10%, and the hospital was able to perform six hundred more surgeries per year.



Results

The Chief Medical Officer embraced the need to standardize and simplify the pick list standardization and simplification on the preference cards. A year later, he presented his hospital's work to other surgical professionals.

- Preference Card Savings**
- 20% Line-Item Reduction (\$65K/Year)**
- Blood Transfusion Reduction**
- From 16% to 11%**
- Cost Avoidance**
- \$7,500 (Hand Tray)**
- 40% Peel Pack Reduction**
- On Time First Case Starts Improvement**
- 60% to 80+%**
- Operating Room Turnover Time Reduction**
- 30%**
- High Profit Surgical Volume Increase**
- 20%**
- Annual Volume Increase**
- 600**