

Case Study

A Southeast United States Hospital

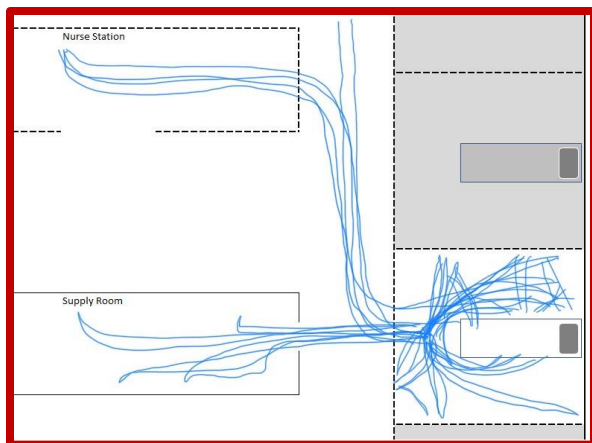
Situation

A hospital located in the Southeast United States expressed concern for the problems occurring in the day of surgery pre-operative department. According to their calculations, they had enough personnel, but overtime was excessive (some staff members working 10+ hours a week overtime) and morale was low.

Also, patients were consistently not ready for surgery at their scheduled times.

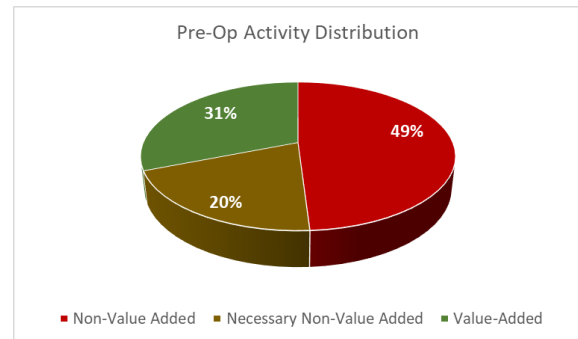
Assessment

During an initial assessment, consisting of staff interviews, document and metric reviews, data analysis, and process observations, the team discovered opportunities. The nurses working in the pre-operative department averaged nearly 80 minutes tending to the patients (note: this is at least twice what has been observed at most other facilities across the United States). Below is an example of the motion to prep a patient for surgery.

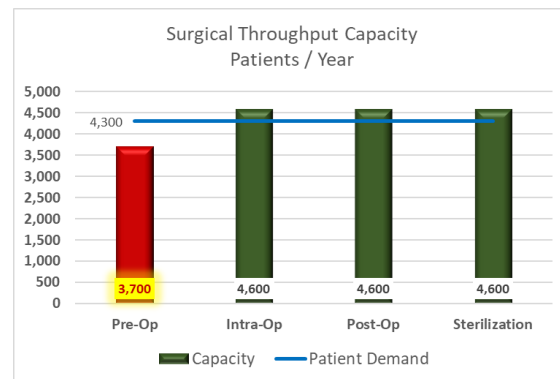


Nearly half the nurse's effort did not directly contribute to preparing the patient such as

excess walking to get supplies, using the copier and printer, and etcetera. The pre-operative bays were not set up to allow easy access to needed resources.



This excess workload contributed to a constraint in which the department did not have the capacity in its current state to meet demand of approximately 4,300 patients per year. Comparatively speaking, the other three perioperative departments had relatively balanced capacity to support 4,600 patients per year.



Initiatives

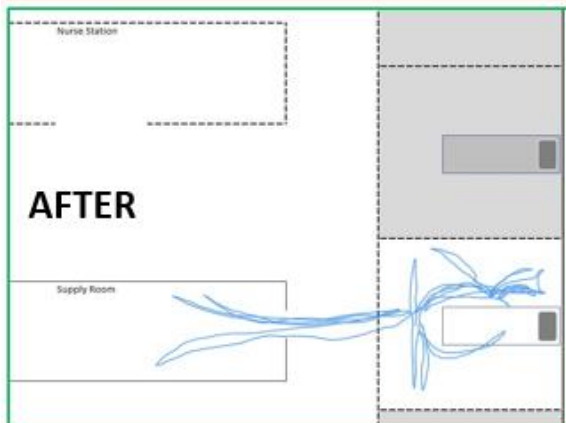
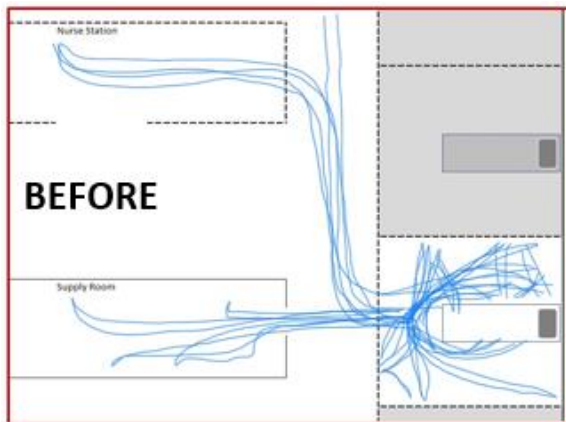
Caregivers participated on teams with the focus on implementing solutions. A leadership team guided the efforts of the implementation teams by facilitating collaboration and managing any needed

Day of Surgery Pre-Operative Department Constraint

escalations, such as the purchase of capital equipment.

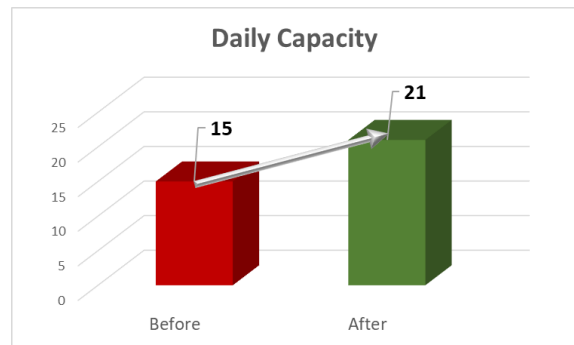
The teams embraced 5S (Sort, Straightened, Shine, Standardize and Sustain), a housekeeping method designed to make the work environment easier to operate in.

The 5S methodology was used to reduce motion and improve access to needed resources. Initiatives include adding tissues, television remote controls, and some supplies / equipment to each patient's room. IV kits were created to reduce efforts to pick supplies, and the linen cart was relocated for easier access. The need to access the copier at the nurse's station was eliminated using pre-day of surgery optimization efforts which included ensuring paperwork was ready such as the History & Physical, cardiac screening and etcetera.



Indicators were installed outside of each pre-operative bed to provide the staff with visual management where patient prep status could be seen at a glance by all stakeholders. This reduced motion associated with looking through patient charts.

To demonstrate the impact of each improvement, each activity was time and distance was measured. For example, the total distance walked for each nurse to prep a patient was 960 feet. That distance was reduced to 250 feet per patient. The reduction of non-value adding tasks, the simplification of work, and the improvements in layout and setup improved daily capacity from only 15 patients per day to 21 per day.



Results

The improvements made were methodical requiring less than a \$300 investment. The coaching work, after the onsite assessment, was performed remotely, saving the hospital money on travel expenses to facilitate this improvement.

Capacity improvement

40%

Distance reduction in walking

74%

Work reduction

44%

Surgical delays caused by pre-operative constraints

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