

# Improving Patient Flow in Surgery Center Increases Capacity, Reduces Frustration, Adds to Bottom Line

## Highlights

- Pre-op waiting time reduced from 81 minutes to 50 minutes per patient.
- Standardized patient interview in new fast-track registration process reduces waiting time.
- On-time first case starts improved from 38% to more than 80%.
- Extra time allows for enough extra cases per day for a **potential revenue increase of more than \$1 million per month, or \$14 million per year.**
- Administrative assistants free up 3.5 hours per day for value-add activities.

The surgery center at a Tennessee hospital shared a common problem with most surgery centers: the flow of patients was not as efficient as it could be, resulting in patient waits and caregiver delays. Besides inconvenience and frustration, suboptimal patient flow meant fewer patients could be treated, reducing capacity and increasing cost.

## Current condition

The client engaged HPP to conduct an assessment and follow with a Rapid Improvement Event, with an eye toward reducing the *81-minute average wait time* for patients in pre-op holding. Together, the team examined ways to eliminate waste and stabilize work flow, from pre-registration through PACU<sup>1</sup>. These improvements would not only reduce waiting for patients, but would increase the amount of time caregivers could devote to patient care. They would also lay the foundation for improving the first-case start times which, if missed, set off a domino chain of delay all day long<sup>2</sup>.

## Value Stream Mapping reveals opportunities

Based on their observations of the work, the team charted the separate flows of patients, workers and charts in the course of a surgical case, looking for opportunities to improve. Besides discovering important information, team members gained renewed appreciation for the work of people in other units, like Pharmacy and Patient Access.

After a thorough look at the Current State, the team focused on developing a Future State that

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would improve patient flow, nurse workflow, and chart flow, while providing more flexibility.

## PATIENT FLOW

### Registration

Patients often waited to have their accounts activated before being escorted to the surgery center for their procedure. The Patient Access department implemented a “Fast Track” process for all pre-registered patients, with pre-admission testing and financial arrangements complete. This process reduces waiting time for eligible patients, accelerating their transfer from the main admitting area.

The new process included a key feature—a standardized patient interview. This thorough assessment catches any special needs before the patient enters pre-op. A visual cue (a completed chart with a green dot) signals to staff that the interview is complete and the patient is ready.

Patients who must wait may remain in the lobby with family, reducing time in the pre-op area where family is not allowed. The new process increases capacity and flexibility for add-on cases and emergencies.

<sup>1</sup> Post-anesthesia care unit (PACU).

<sup>2</sup> On-time first case starts stood at just 38 percent; the target would be 80 percent.

## Pre-Op

Patients averaged 81 minutes of waiting time in pre-op, constraining the number of beds available. With a new modified “pull” system, patients are called into pre-op only when the OR signaled its readiness—reducing pre-op wait time by more than 30 minutes. Staff report that they now spend more time with each patient.

## NURSE WORK FLOW

Nurses in both pre-op and PACU found that commonly used supplies were not always available at the bedside. The team configured patient care areas to meet nurses’ needs (i.e. gloves on the right side of the bed, etc.) Travel time was reduced, along with central stock room par levels.

PACU bays were reconfigured so the administrative assistant could see all open bays, and the installation of additional phones improved communication.

By standardizing the content and sequence of the charts according to the needs of the nurses, rework, confusion and re-ordering were reduced.

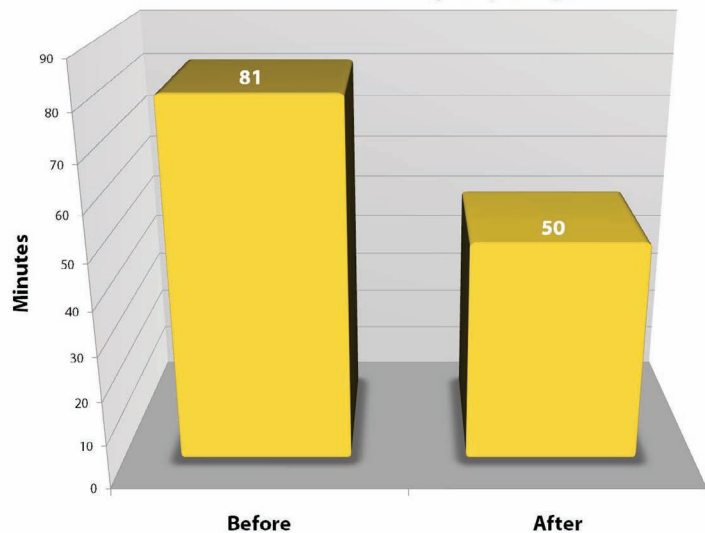
## ADMINISTRATIVE WORK FLOW

The team discovered that the 1.5 hours per day the administrative assistant spent creating “blank” chart packets could be eliminated when the IT department created a way to print the standardized



The changes helped administrative assistants free up **3.5 hours of time** per day through simple process improvements that reduced frustration and error.

## Patient Time in Pre-Op Bay (Avg.)



With a new modified “pull” system, patients are called into pre-op only when the OR signals. Pre-op wait time is reduced by more than half an hour per patient.

packets on demand in the pre-admission testing (PAT) area. These improvements improved work flow, eliminated wasted paper, and freed up a room in the surgery center.

The team looked into the excessive travel required by the assistant for “same day” medication orders and discovered the problem lay with the scanning process—nearly 30% of the scanned items were not being read properly. A new scanning process eliminated the inaccuracy, travel and frustration, saving approximately two hours a day of an assistant’s time.

Interruptions were another form of wasted time, as OR staff called the pre-op assistant for basic contact information. A physician contact list posted in each OR has reduced these interruptions.

## SIGNIFICANT EFFICIENCY IMPROVEMENTS LEAD TO POTENTIAL REVENUE GAINS

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