

Utilization & Planning for Increased Growth in the Fourth Quarter

OrthoNebraska
Omaha, Nebraska



OrthoNebraska

Journey On

Process of Identifying Need

There are many components to delivering on an unmatched patient experience, but open lines of communication and absolute collaboration at all levels is critical in identifying opportunities for improvement.

How does OrthoNebraska identify an issue?

- Monitoring and forecasting of anticipated patient demand and healthcare trends
- Recognizing & reporting identified areas of improvement
- Routinely seeking the voice of our front line teams

In spring of 2017, staff voiced concerns regarding a less than optimal patient experience in the fourth quarter of the year.

- Due to a growing demand for our high standard for patient care coupled with an increase in High Deductible Health Plans (HDHP) has led to year-over-year growth for our organization, particularly in October thru December.
- Our 24-bed inpatient capacity created issues for patients who may take longer to recover or have an unexpected setback.
- Occasionally, this would lead to a temporary stay in an extended recovery room, as opposed to an inpatient room.

Process Improvement Methods

OrthoNebraska utilizes the tools and techniques from proven performance improvement methodologies – such as Six Sigma, lean, Plan Do Study Act (PDSA) and project management methodology (PMI) – within a DMAIC framework to create the OrthoNebraska Performance Improvement Process.

Define

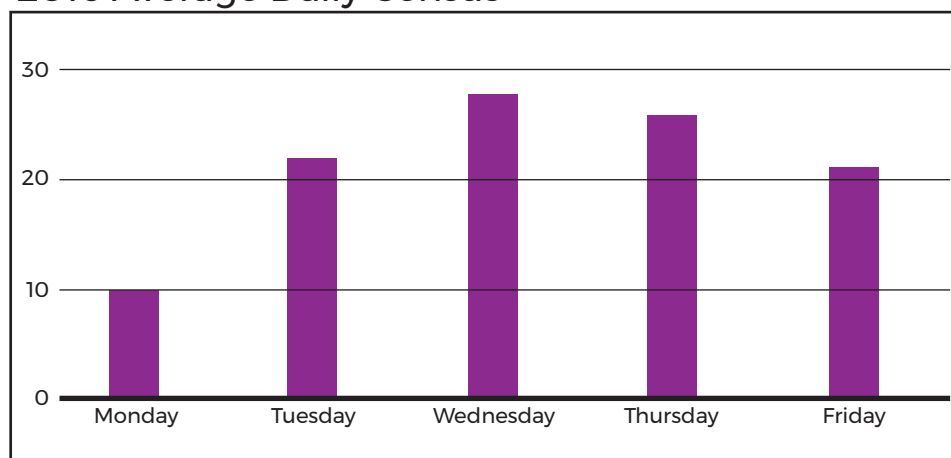
- Team: Pre-Op, Inpatient & Surgery departments, as well as physicians, clinic and office staff
- Problem: Increased surgical volumes during the 4th quarter historically have caused a delay of surgery due to inpatient room availability and an increased use of extended recovery beds.
- Current State: Prior to the implementation of this project a patient could be placed on the surgery schedule at any time. If there was not an inpatient bed available, it is communicated to the patient and physician after the surgery was scheduled. This caused frustration for the physician and patient, and forced the patient to reschedule.
- Goals:
 - Improve patient safety & satisfaction
 - Reduce use of extended stay beds
 - Reduce variation in scheduling
 - Enhance utilization and optimization of bed capacity
 - Increase communication during the scheduling process
 - Improve staff efficiencies

Process Improvement Methods

Measure & Analyze

- The team mapped out physician preferences against the overbooking to propose potential solutions for each surgeon based on the following data collected:
 - Conversations with all surgeons to better understand their needs related to their surgery schedule and overnight bed use
 - Surgeon preferences for scheduling overnight cases
 - Review of overnight cases for each surgeon from Q4 2016
 - Length of Stay (LOS) for each provider
 - Daily census (subtracting discharges and adding in new patients) to establish daily 24 bed capacity

2016 Average Daily Census



Process Improvement Methods

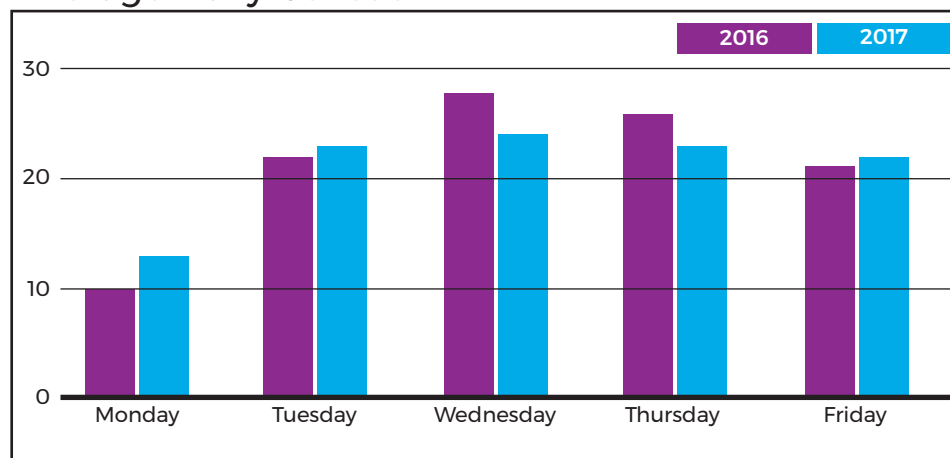
Improve

1. Ongoing collaboration with surgeons to adjust the surgery schedule throughout the week. This ensured equal distribution of beds.
2. Development of a Physician & Nursing education plan:
 - Provided guidance on what types of patients should be scheduled on specific days of the week based on their estimated LOS to allow for better throughput.
 - Example: patients with shorter anticipated LOS have a surgery earlier in the week, while a patient that would likely require care at a skilled nursing facility would have surgery later in the week.
3. Rounding for discharge were completed by 10:00 AM.
 - Physicians were encouraged to complete morning rounds prior to 10:00 AM daily
4. Establish a structure for surgeons to have conversations with their patients regarding their anticipated length of stay using evidence-based tools (RAPT scores)
5. To ensure block times were able to occur as scheduled, the hospital also analyzed the number of late starts on the first cases of the day. Data was reviewed and reported to physicians and leadership weekly. Increased awareness and communication increased utilization & efficiency of the rooms.
 - Review of first case late starts and reporting to physicians resulted in a decrease in first case late starts and increased utilization and efficiency of the operating rooms.

Results

- Overall patient satisfaction (HCAHPS) score increased by 3% to 92%. The State of Nebraska averaged 80% overall satisfaction in 2017.
- Length of stay was decreased by .049%
- Use of extended recovery rooms decreased by 47% to 1.6%
- First case delays of more than five minutes decreased from 31.35% to 10.8%
- Leveling of the average daily census (*see example below*)

Average Daily Census



Results

Example of the *new* weekly surgery schedule:

	Monday	Tuesday	Wednesday	Thursday	Friday	# of inpatients per week
Surgeon A		3 IP / LOS 2	2 IP / LOS 2	2 IP / LOS 3	2 IP / LOS 3	9
Surgeon B		3 IP / LOS 2	2 IP / LOS 2 2 IP / LOS 3		2 IP / LOS 3	9
Surgeon C					2 IP / LOS 3	3
Surgeon D		2 IP / LOS 2		2 IP / LOS 3		4
Surgeon E	3 IP / LOS 2					4
Surgeon F				2 IP / LOS 3		2
Surgeon G	2 IP / LOS 1		1 IP / LOS 1			3
Surgeon H			2 IP / LOS 2			2
Surgeon I	3 IP / LOS 2			2 IP / LOS 2		5
Surgeon J	3 IP / LOS 1					2
Surgeon K	2 IP / LOS 1					2
Surgeon L		3 IP / LOS 2	3 IP / LOS 2			4
Surgeon M	2 IP / LOS 1		1 IP / LOS 1			1
Surgeon N	1 IP / LOS 1			1 IP / LOS 2		2
Surgeon O						0
Surgeon P	6 IP / LOS 2			3 IP / LOS 3	3 IP / LOS 3	11

Lessons Learned

Control Plan

- Data is monitored weekly and reported out to each surgeon, their Mid-level practice providers and nurses to ensure we sustain our gain.

What did we learn?

Throughout the project the team was able to adjust practices to ensure sustainability and replication into the future. The following are several key lessons learned that are suggested for consideration for area facilities looking to take on a similar project.

- Early 10:00AM rounding significantly helped nurses, therapy, and hospitalists to better prioritize patients. In addition:
 - Earlier discharges allowed our team to identify and mitigate any issues that may arise once a patient is home during normal business hours.
 - Minimized after hours phone calls to an on-call surgeon who may not be familiar with the patient's situation.
 - Discharging patients in the morning was a satisfier especially for patients who live outside of the Omaha area.
- By revising the surgery schedule and providing more guidance to the scheduling team, we were able to create better throughput of patients.
- By engaging all levels of the organization, including physicians, in the project the team truly developed trust in relying on a new platform.