

Blueprint for Orthopedic Success at VA Hospital



MEDICAL CENTER

Accelero provides plan to improve OR efficiency and throughput

■ AT A GLANCE

- Veterans Affairs hospital in Mid-Atlantic region
- 16-bed medical-surgical suite with three ORs
- 74% of all inpatient orthopedic procedures are total joint replacements

■ ISSUES

- Hospital limited to eight joint replacements per week
- High cancellation rate on day of surgery
- Management tasked with improving care and capacity

■ RESULTS

Accelero provided a plan with process improvements that would enable the hospital to add over 400 joint replacement surgeries per year while also improving care and patient satisfaction.

INTRODUCTION

The VA hospital is located on a sprawling campus that serves nine rural counties in the Mid-Atlantic region of the United States. The hospital has a 16-bed medical-surgical suite with three operating rooms. Orthopedics is the second highest volume subspecialty and has a dedicated operating room used by three orthopedic surgeons. Nearly three-fourths (74%) of all inpatient orthopedic procedures performed at the hospital are total joint replacements.

Inefficiencies in the perioperative suite are limiting the hospital to an average of eight joint replacement surgeries per week, two per day on peak operating days. To accommodate more orthopedic patients, the VA hospital is building a new facility with four operating rooms and more patient preparation rooms.

FINDINGS

Management at the hospital was tasked with improving quality, increasing capacity and expanding services. To that end, Accelero Health Partners was hired to identify in-depth opportunities to improve the care and throughput of orthopedic patients. A team of experts went on-site to review hospital data, interview key stakeholders and observe relevant procedures, including pre-surgical screening, sterile processing, operating room activities and post-surgical care.

A lack of proper planning greatly reduced the effectiveness of the program. The hospital averaged one cancellation per day on the day of surgery because of incomplete pre-operative education or patient charts. Scheduling issues, including inaccurate default case times in the system, led to operating room utilization of 45% and 351 hours of overtime in the most recent quarter.

Lack of planning and defined processes greatly impacted perioperative efficiency. Pre-admission testing (PAT) was inconsistent. The anesthesia provider in PAT could be reassigned to the OR at any time. Patient charts were not reviewed until the day of surgery, leading to perioperative delays and cancellations. First cases were seldom on time as team members were late, the OR was not properly set-up, charts were incomplete and/or patients needed additional testing. Out-of-date preference cards, misplaced equipment and long room turnover times (often more than 60 minutes) further impacted case times and throughput.

The hospital also experienced patient flow issues in the PACU. There was a backup as patients waited for beds and the lack of room prevented anesthesia from properly evaluating patients for discharge.

RECOMMENDATIONS

Recommendations and a plan were provided to improve program management, perioperative efficiency and the delivery of care to greatly increase the number of Veterans the hospital will be able to treat.

Perioperative Efficiency

To improve the perioperative process Accelero recommended a formal scheduling process with updated case time elements and a defined workflow for first cases. Accelero also benchmarked key joint replacement perioperative metrics against their proprietary hospital database to derive new, achievable targets (FIGURE 1). Tracking the new metrics while standardizing the workflow will eliminate system inefficiencies and variability.

Time in Minutes	Hospital	Target	Time Savings
'Patient In' to 'Incision'	36	26	10
'Incision' to 'Close'	86	54	32
'Close' to 'Patient Out'	7	5	2
Room Turnover	31	21	10
Total Time	129	85	44

FIGURE 1 | Hospital metrics v. Accelero benchmarks for all total joint replacements.

Standardized Post-surgical Processes

Accelero recommended a standardized post-surgical process to ensure a smooth transition of care and overall patient experience. Improving staff-patient communication will help to ensure patients and their coaches are actively preparing for a two-day discharge. Working closely with post-acute care providers and establishing discharge protocols will increase patient flow and decrease patient backup in the PACU. And finally, a post-discharge phone call should be made to every patient within 48 hours after discharge to ensure that critical elements of post-discharge care have occurred prior to the patient's follow up visit with the surgeon.

SUMMARY

Installing new processes from preoperative education and testing through discharge planning will greatly improve the average length of stay for total joint replacement patients, providing for added capacity at the hospital (FIGURE 2). Combined with improved perioperative efficiencies, Accelero estimates the hospital will be able to perform over 400 additional joint replacements per year utilizing the current facilities. Additionally, more Veterans will receive the high quality care they deserve.

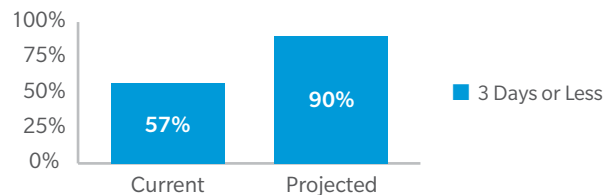


FIGURE 2 | Current v. projected length of stay (three days or less) for joint replacement patients at the hospital.