

Accelero Delivers Roadmap to Improve Orthopedic Care, Reduce Delays at Large Hospital in Spain

Standardized perioperative process to improve orthopedic surgical throughput

AT A GLANCE

- A large public hospital in Northwest Spain
- Performed 869 hip and knee replacements last year
- One of two large competing hospitals in the city

ISSUES

- Long scheduling delays for surgeries
- Inefficient surgical throughput
- Inconsistent patient care

RESULTS

Accelero delivered a detailed plan to improve care and increase surgical throughput from three to four patients per operating theatre per day.



INTRODUCTION

The hospital is one of two large public hospitals in a city in Northwest Spain. The other is a long-standing academic hospital. To improve their competitive position, the hospital was looking to improve the care and surgical throughput of their orthopedic program.

Of particular concern was the long wait time for orthopedic procedures. In some instances, a patient could wait as long as one year from the time they were first evaluated in the clinic until the surgery was performed. Hospital administrators believed they could more effectively use their staff and facilities to accommodate a larger number of patients. Interrelated to these inefficiencies, they were also concerned with the lack of consistency of daily patient flow through the operating theatres.

Accelero Health Partners was contracted by the hospital to assess their orthopedic service line, with an emphasis on day of surgery processes. As part of the assessment, two teams of experts were assigned on-site at the hospital to observe perioperative patient flow, interview relevant stakeholders and benchmark hospital process times against Accelero's proprietary hospital database.

FINDINGS

One of the most significant issues at the hospital was inconsistencies on the day of surgery. The first surgery of the day would start in operating theatre anywhere from 8:36AM to 8:51AM, making the remaining schedule unpredictable, at best. Contributing factors included: orthopedic patients were being admitted to locations other than the local ward, poor communication between the ward and OR, variability in patient and staff arrival times, and a lack of clearly communicated start times.

Inefficient practices in the operating theatre were lengthening procedure times and limiting the number of surgeries possible each day. Staff utilization was not optimal. The staff would often wait on each other creating a linear – and longer – process. In addition, the staff was observed leaving the operating room on numerous instances. The cleaning and set-up processes also lacked efficiency and the expectations for both surgical staff and housekeeping was not clear.

The culmination of these issues limited the full utilization of orthopedic resources, resulting in an average daily surgical volume of three patients per operating theater per day.

As part of the assessment, the hospital's joint replacement data was benchmarked against Accelero's proprietary hospital database (FIGURE 1).

Process	Current	Median	Benchmark
Room Turnover	35	29	21
'Patient In' to 'Incision'	32	26	20
'Close' to 'Patient Out'	10	10	7
Total	77	65	48

FIGURE 1 | A comparison of the hospital's joint replacement times (minutes) to the Accelero hospital database.

This analysis shows that there is an opportunity to improve 'patient in' to 'incision' and room turnover time, enabling one additional surgery per day.

RECOMMENDATIONS

The goal for the hospital is to reduce their surgical wait time and improve patient care. Accelero created a roadmap for the hospital to maximize their facility and staff utilization by improving the day of surgery processes and perioperative efficiency.

Improve Patient Flow Consistency

The hospital's goal was to create a more predictable surgical schedule by adding consistency on the day of surgery. A few of the recommendations to meet this goal includes: clearly defined times for first case arrivals, create process flow maps with timing and expectations, create preadmission criteria to identify the best candidates for 'first case' status, and ensure first case patients are admitted to the ward on the same floor as the designated operating room.

Enhance Process Throughput

In order for the hospital to increase the average number of surgeries per operating theatre per day, an emphasis on ingraining a culture of efficiency was recommended. Some of the recommendations to achieve this culture includes: establishing an infrastructure to capture and manage surgical metrics, create a multidisciplinary process improvement team with all stakeholders, utilize lean methodologies to create standard work for staff and create control documents to effectively manage process timing.

SUMMARY

Accelero was contracted to provide a plan for a hospital in Northwest Spain to improve their patient care and surgical efficiency for orthopedic patients. The assessment revealed significant opportunities to improve pre-surgical processes and surgical times to increase the average surgical case volume per operating room from three to four surgeries per day. Doing so would not only help to reduce the backlog of patients, but may also help to provide a higher level of care for orthopedic patients.



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