goShadow

CUSTOMER OVERVIEW

UPMC Shadyside, Presbyterian, & East Hospitals

Pittsburgh, PA, USA

- The University of Pittsburgh Orthopaedic Department was founded in 1953 and treats both children and adults.

- Driven to lead the field in biological and technical advancements, education through residency and fellowship programs, and novel treatment modalities.

Shadowing to Reveal Root Causes of Waste, Reduce Operating Room Delays, and Map Patient Experience

Operating room delays can be the source of financial distress, staff dissatisfaction, and waste. The loss of 1 minute of operating room time can cost up to $100 per minute or $6,000 an hour. Delayed first case start times and inefficient room turn over can cost an organization nearly **$10M annually**. Create a current state map of operational efficiency and patient experience using goShadow's app and reporting platform to increase OR efficiency and understand the root causes of delayed first case starts. **In just 2 days**, goShadow collected data that led to one organization reducing first case delays and **increasing efficiency by 20%**, leading to a savings of tens of thousands of dollars.

Benefits of Shadowing

- Quickly Map Patient Experience and Flow to Uncover the Root Cause of Delays in On-Time Starts

- In Real-Time, Identify Redundancies and Gaps in Coordination of Care and Tangible Solutions

- Use Qualitative and Quantitative Data to Engage Clinicians and Staff to Co-Design More Ideal Staff Workflows and Patient-Centered Resources to Create Operational Efficiency

- Document and Scale More Ideal Practices so That They can be Methodically Adapted and Scaled Across the Medical System

goShadow

Background

The goShadow lean process mapping and improvement team was engaged by 3 high-volume orthopaedic and surgical facilities to map patient experience and staff workflows for a total joint replacement patient. Over the course of 2 days, qualitative and quantitative data was collected to map the current state from parking to the end of postoperative day 1 and, in many cases, same day discharge. Alongside the patients' experience, staff workflows were collected. Combining the two sets of data enabled the surgical services teams to come together to break down silos, identify opportunities for improvement, redundancies, and how to reduce operating room waste by 20% while increasing patient and staff satisfaction and outcomes.

Methods

Mapping patient and staff experience across organizational and departmental silos is challenging in traditional health care settings. Staff are given little time for process improvement or mapping care across these silos. Consequently, they are unaware of systematic waste and inefficiencies that lead to a system designed to achieve less-than-ideal patient and staff experiences. In two days in each of three organizations, goShadow's process mapping and improvement specialists designed and implemented a replicable data collection template and trained staff on how to shadow the day of surgery experience from the patient's perspective.

After walking the patient pathway and meeting with clinicians and internal improvement specialists, the goShadow team developed a strategy to break the ten to twelve hour long day of surgery experience into smaller segments to shadow: day of surgery arrival, preoperative holding area, operating room, post-anesthesia care unit (PACU), and then the inpatient unit if a patient is not going to be discharged the same day. After designing and implementing the data collection definition and template, changes can be made in real-time so that the collection and aggregation of data over time creates a longitudinal view of operational efficiency and experience side by side.

The goShadow solution

The team collected comprehensive qualitative and quantitative data that was used to reveal root-causes of operational inefficiencies, delays, and undesirable patient and staff experiences. In addition to the aggregate qualitative and quantitative analysis that the shadowing team provided, solutions were identified that required no additional resources. While the clinical teams anticipated the identification of a single culprit of first case delays and inefficient room turn over, the root cause analysis in each of the three organizations revealed that the aggregation of small operational and human inefficiencies, when compounded, amounted to gaps in care and experiences for patients and staff.

Results

Gaps in communication with patients added up to 30 minutes of unanticipated time in the preoperative holding area and significant delays in operating room start time. Many of the questions that patients had should have been answered prior to the day of surgery. Lack of a reliable system, standard workflow, and communication among surgical services staff and clinicians contributed to often fragmented care for the patient and re-work for staff. While seemingly small periods of time, the aggregate of these inefficiencies throughout the day led to significant operating room overtime and dissatisfaction of patients and staff.

With support from goShadow and internal process improvement experts, working groups used the real-time quantitative and qualitative analysis from two days of shadowing, or just 20 patients in each organization, to address gaps in patient education and communication between the many segments of the day of surgery experiences. goShadow's current state process map and root-cause analysis revealed the need for consistent pre-operative staff communication with patients and cross-silo clinical communication prior to scheduled OR-start time as significant opportunities for improvement.

By incorporating qualitative feedback from patients and staff, patients received more consistent communication to set expectations about when to go home and what to expect the day of surgery. This allayed their fears and led to fewer questions being asked on the day of surgery. Preoperative and operating room developed a standard system of communication and mechanisms to address gaps that led to re-work and downtime. No additional staff resources were required to implement any changes. On-time starts and day of surgery efficiency increased by over 20% across three organizations for a savings of tens of thousands of dollars of operating revenue every day. Through goShadow analytics and the creation of data collection templates, multi-disciplinary staff engagement in shadowing, and measurement of improvement, continues. More ideal practices are blueprinted and scaled to other service lines and organizations.

This project has acted as a catalyst for continual shadowing standards across the orthopedic pathway. goShadow continues to drive cost savings as well as enhance staff and patient satisfaction through co-design in ongoing projects.

The goShadow Difference

Don't rely on anecdotal information as to *why* delays occur. Use goShadow to engage your team and arm your organization with real-time data to strategize *how* to address inefficiencies and silos. Scale results quickly and co-design a more ideal pathway through shadowing templates and benchmark analysis.