

Reducing Preoperative Causes of Delays in First Surgical Cases: A Quality Improvement Project

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Introduction: The first surgical case start time, which is a performance indicator of surgery efficiency, is very dependent upon the on-time preoperative patient preparation. Despite monthly monitoring, surgical delays are chronic occurrences in many hospitals, causing failure in on-time patient service and inefficient use of resources. The preop nurses, being the center of communication in coordinating the patients' preop care, led a QI project to address this problem.

Identification of the problem: For this project, **FCD is defined as first surgical case delay by more than 15 minutes.** RLA's 14-month FCD average was 51%. The widely accepted cost of surgical delay is \$62/minute average, or almost \$1,000/15minutes.

QI question/Purpose of the study: Can the team decrease first case delays at preop from 51% average in February 2023 to 25% by June 2023?

The project aims to provide on-time care for patients, use resources efficiently, and improve preop workflow.

Methods: Stakeholder Analysis, Gemba Walk, Driver and Ishikawa Diagrams were used to identify root causes of delays. The Plan-Do-Study-Act Model (PDSA) was used to implement pragmatic interventions in collaboration with nursing, surgery, and anesthesia departments. A new audit tool was created and it showed that main FCD causes were late surgeons, consent errors, inpatient transfer delays, and late anesthesiologists. Surveys showed that nursing delays included staff availability, poor communication, prolonged OR setup, and equipment availability. Department leaders held meetings, reminding staff of expectations and implemented interventions. The first nursing PDSA Cycle improved communication among staff by assigning permanent Voice-Over-Internet-Protocol (VoIP) phones for all preop and OR staff. Directories were placed in all ORs, desks, and preop/PACU areas.

Outcomes/Results: The interprofessional team decreased the FCDs from 51% to 25% by June 2023. As of August 2023, RLA maintains its FCDs at less than 25%. Additionally, nurses reported through a survey an improvement in communication among the interprofessional team.

Discussion: Communication improved within the team. The intervention sustained FCDs below 25%. These results are possible with the interdisciplinary collaboration of the three departments.

Conclusion: RLA will continue to use assigned VoIPs and directories to facilitate communication. The audit tool reveals room for improvement through subsequent creation of additional PDSA cycles.

Implications for perianesthesia nurses and future research: The root cause analysis showed that the systemic problem of inadequate preop communication contributed to delays. The impactful role of the preop nurse in coordinating care with all services was highlighted through this study.