PAGNY RESEARCH DAY

Physician Affiliate Group of New York, P.C.

A Multi-Disciplinary Approach to Reduce the Rate of Same-Day Operating Room Cancellations (SDORC) in an Urban Level I Trauma Center

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INTRODUCTION

- Same-day operative cancellations (SDORC) delay care, create inefficiencies, and increase costs.
- For patients: emotional distress, prolonged disease course, and health risks.
- For surgical teams: unused OR time, workflow disruption, and staff dissatisfaction.
- Root cause analysis identified **inadequate preoperative optimization (IPO)** as the main contributor.
- Aim: To reduce SDORC through a **structured, multidisciplinary approach** that standardized preoperative screening and improved care coordination.

METHODS

- **Design:** Quality improvement project
- **Setting:** Urban Level I trauma center
- **Team:** Surgery, Anesthesia, Perioperative Services, Ambulatory Surgery, and Nursing
- **Process:**
  Conducted Pareto analysis to identify primary drivers of cancellations.
  Found that incomplete pre-op assessments and missed medical optimizations were leading causes.
  Developed targeted interventions to address these deficiencies.

Interventions

Updated Pre-operative Stratification Tool (ASA + procedure-specific risk: EBL & duration)
Introduced Epic order for pre-op medicine consult
Formed collaborative workgroup with Ambulatory Surgery, Peri-op Services, Anesthesia and Surgery
Developed, posted and trained staff on Ambulatory Surgery Checklist (H&P, consent, meds, labs/imaging) and Pre-operative Stratification Algorithm in Ambulatory Surgery Clinic
Updated and piloted guidelines for ortho-trauma echocardiograms/routine cardiac care
Completed Gemba walk through of pre-admission testing process
Developed and implemented Standard Medication Instructions for Perioperative Care

DATA COLLECTION/ANALYSIS

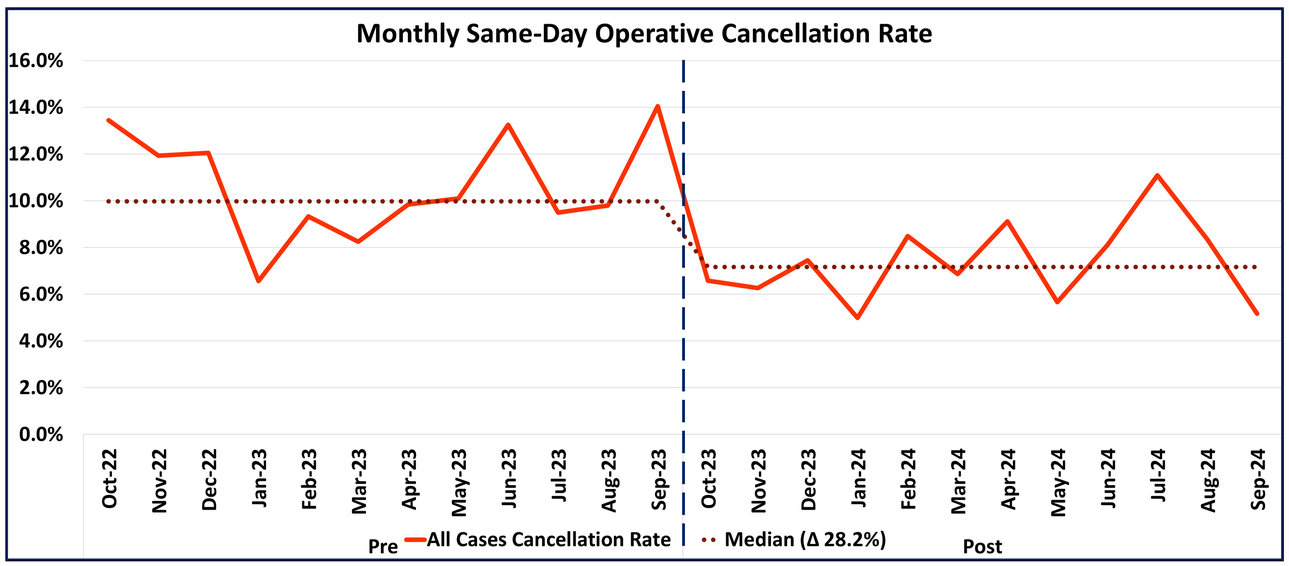
- **Study periods:**
  Pre-intervention: Oct 2022 – Sep 2023
  Post-intervention: Oct 2023 – Feb 2025
- **Population:** All scheduled elective and add-on surgical cases.
- **Primary outcome:** Monthly same-day operative cancellation rate.
- **Secondary analysis:** Subset of cases cancelled due to IPO, focusing on high-risk patients flagged through stratification.
- **Data analysis:**
  Compared cancellation rates pre- and post-intervention.
  Calculated **percent change** between periods.
  Identified the proportion of cancellations avoided through early optimization.

RESULTS

All Cases
Pre-intervention cancellation rate: **10.0% (N=4543)**
Post-intervention cancellation rate: **5.6% (N=4564)**
Percent change: 44.0%

IPO Cases *(high-risk patients)*
Pre-intervention: **26.5% (N=487)**
Post-intervention: **19.3% (N=337)**
Percent change: 27.2%

Summary:
- Post-intervention cancellations due to incomplete workup or missed risk stratification dropped substantially.
- Most improvement seen among patients identified early as high risk.



DISCUSSION

- **Multidisciplinary engagement** across services enabled system-wide change.
- Standardized tools improved **early identification** and management of high-risk patients.
- **Consistent communication** and structured feedback loops sustained improvements.
- **Gemba walks and run charts** allowed real-time detection of inefficiencies.
- This approach can serve as a **replicable model** for similar surgical programs.

CONCLUSION

- A structured, multidisciplinary strategy **reduced same-day OR cancellations by nearly half.**
- Success driven by early identification of high-risk patients and clear preoperative workflows.
- Future goals:
  Sustain improvements through continuous auditing.
  Expand interventions to additional services.
  Refine pre-op optimization for complex, comorbid patients.