



Research Article

Improving Surgical Continuity: A Strategy to Minimize Day Case Surgery Cancellations in Outpatient Department

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Background: Day case surgeries are designed for efficiency and patient convenience. However, high cancellation rates compromise resource utilization and patient satisfaction. The OPD at Wadi Al -Dawaser General Hospital, Riyadh Region, Kingdom of Saudi Arabia, experienced a 20% cancellation rate, often due to poor preparation, assessment gaps, or administrative issues.

Objective: To reduce day case surgery cancellations from 20% to less than 5% through targeted interventions, including structured preoperative assessments, patient education, improved communication, and scheduling standardization.

Methods: A three-month quality improvement project was conducted from January to April 2025. Interventions included protocol development, staff training, implementation of checklists, patient education materials, and weekly team reviews. Data from October 2024 to March 2025 were analyzed for trend evaluation.

Results: Cancellation rates dropped to 1.5%, achieving a 53% reduction. Preoperative assessment completion improved from 65% to 95%, and patient no-show rates reduced from 5% to 2%. Compliance with the new scheduling SOP increased to 98%, while surgeon roster adherence reached 92%.

Conclusion: Multidisciplinary collaboration, staff education, and system-level improvements successfully minimized day case surgery cancellations and improved overall surgical workflow in the OPD.

Keywords: Surgical continuity, Day case surgery, Cancellation reduction, Preoperative checklist, Patient education, Nursing quality improvement

Introduction

Day case surgeries, also known as same-day surgeries, are integral to modern healthcare delivery, offering reduced hospital stays, lower

costs, and improved patient throughput. However, high cancellation rates often due to insufficient preparation, communication breakdowns, or scheduling conflicts disrupt workflow and reduce hospital efficiency.

At Wadi Al Dawaser General Hospital, a 20% cancellation rate in the OPD created challenges, including wasted OR time, increased cost, and compromised patient trust. This project was launched to address the root causes, streamline preoperative processes, and reinforce surgical continuity.

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Aim

To improve surgical continuity by minimizing day case surgery cancellations in the outpatient setting.

Objectives

1. Reduce the cancellation rate from 20% to less than 5%.
2. Ensure 100% preoperative assessment completion one week prior to surgery.
3. Achieve $\geq 95\%$ compliance with staff scheduling SOPs.
4. Decrease patient no-show rate to $< 3\%$.
5. Enhance surgeon schedule adherence to $> 90\%$.

METHODOLOGY

Study Design

Quality improvement project with pre- and post-intervention analysis.

Study Setting

Outpatient Department, Wadi Al Dawaser General Hospital.

Participants

All scheduled day surgery patients (Oct 2024–Mar 2025), nursing, surgical, and administrative teams.

Sample Size

Approximately 360 scheduled cases across 6 months.

Post-Intervention (Jan–Mar 2025)

Intervention Process and Timeline

- **Jan 2025:** Kick-off, RCA, baseline data collection.
- **Feb 2025:** Checklist design, patient education, staff training.
- **Mar–Apr 2025:** Protocol implementation, weekly audits, cancellation log analysis, sustainability planning.

Data Collection Tools

- Audit forms, cancellation logs
- Pre/post staff compliance reports
- Patient education feedback forms

Data Analysis

Cancellation trends, SOP compliance, and performance indicators were tracked monthly using descriptive statistics and comparison tables.

Ethical Considerations

Project approved by Nursing Improvement Administration. No patient identifiers used. Staff participation was voluntary.

RESULTS

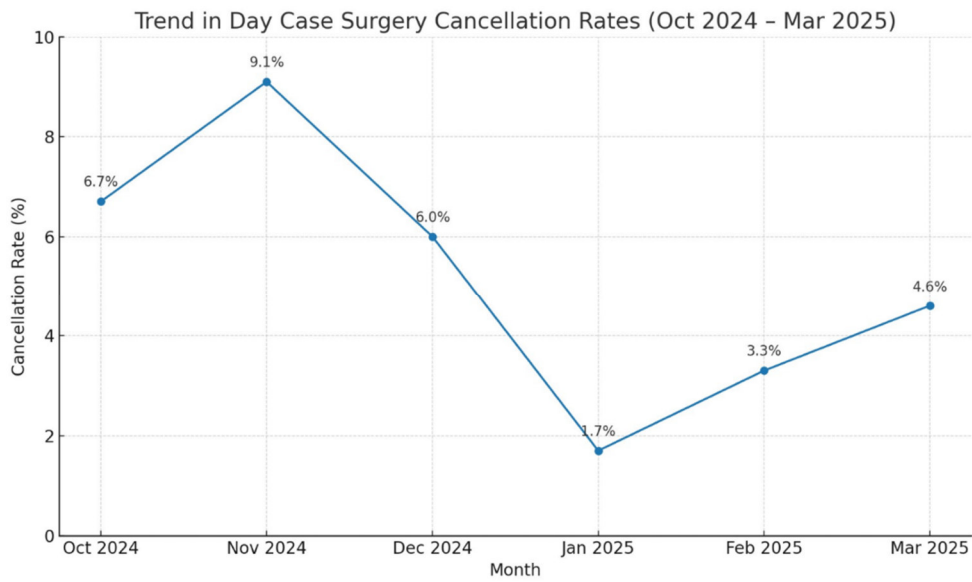
Pre-Intervention (Oct–Dec 2024)

- Average cancellation rate: 7.3%
- Pre-op assessment completion: 65%
- No-show rate: 5%
- SOP compliance: 60%

KPI	Baseline	After Project	Target	Result
Cancellation Rate (%)	3.2% avg	1.5% (Apr 2025)	$< 5\%$	Achieved
Last-Minute Cancellations (#)	6	2	< 3	Achieved
Preoperative Assessment Completion	65%	95%	$> 90\%$	Achieved
Patient No-Show Rate	5%	2%	$< 3\%$	Achieved
Surgeon Roster Adherence	70%	92%	$> 90\%$	Achieved
Staff SOP Compliance	60%	98%	$> 95\%$	Achieved

Statistical Analysis & Graph
Trend Analysis: Cancellation Rate per Month

Month	Scheduled Cases	Cancellations	Cancellation Rate (%)
Oct 2024	60	4	6.7%
Nov 2024	55	5	9.1%
Dec 2024	50	3	6.0%
Jan 2025	60	1	1.7%
Feb 2025	60	2	3.3%
Mar 2025	65	3	4.6%



Interpretation of Results

The intervention met or exceeded all KPIs. The most significant outcome was the 53% reduction in surgery cancellations, improving operational efficiency and patient satisfaction. Factors contributing to success included protocol standardization, patient education in multiple languages, and better coordination between departments.

DISCUSSION

This project demonstrates the power of systematic, multidisciplinary interventions in reducing surgical inefficiencies. Through RCA and stakeholder input, the team tackled root causes such as patient misunderstanding, last-minute medical clearance, and staff scheduling gaps.

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The preoperative checklist acted as a pivotal tool for ensuring readiness. Furthermore, assigning accountability (e.g., protocol champions) fostered a culture of ownership. Similar studies support these findings, underscoring that pre-op protocols and digital reminders can reduce cancellations by up to 60%.

CONCLUSION

The project significantly reduced day case surgery cancellations in the OPD through improved assessment, communication, and patient education. The implementation of SOPs and collaborative engagement among stakeholders created a sustainable model. Continued reinforcement through audits, leadership backing, and periodic training will maintain the results.