Nursing Impact on a Multidisciplinary Approach to Improving First Case on Time Starts at Stony Brook Medicine

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Stony Brook Medicine

https://www.mja.com.au/journal/2015/202/7/enhanced-recovery-after-surgery-program-hip-and-knee-arthroplasty

Introduction

- The purpose of this project was to identify barriers to first case on time starts (FCOTS) by way of direct observation and real-time intervention. Implementation of a detailed review of all first cases in the main ORs allowed the development of solutions and interventions to permit an increase in the percent of FCOTS.
- The interdisciplinary OR throughput team included participants from nursing, anesthesiology, surgery, and quality.
- SBUH baseline performance was at a 38% FCOTS for the previous 12-month period, leading to downstream delays, including turnover and delayed next cases.
- Barriers and reasons for delay for each of the elements was obtained and reviewed and became the opportunities for improvement and the interventions.
- First case starts were defined as any first case entering the room between the hours of 6-10AM, including scheduled and add-on cases.

Methods

The team utilized a quality improvement method (PDSA cycle) to implement change and sustain improvements.

- Defined timestamps for Pre-op expectations (Nursing / Surgeon / Anesthesia) for the completion of tasks for OR and Patient Readiness.
- Timestamps identified role responsibilities at 5-10-15-20 minute increments prior to start time.
- Real-time monitoring was provided via an EMR tracking board to flag potential delays in the OR readiness process.
- Developed audit tool which enabled staff to record the identified delay reasons. (QR code)
- Barriers and reasons for delay were obtained immediately after first cases entered into the OR.
- Time stamped data entered in case tracking was reviewed daily and identified key drivers for improvement, promoting interventions to the processes in the pre op phase were implemented for improvement.
- Trended analyses reviewed at monthly perioperative executive committees with department leadership, including individual practitioner rates.

Results

- Baseline January 2020 to February 2021–FCOTS were at 38%.
- Post-implementation, March 2021 to December 2022, improved to above 74%.
- Within 5-minute grace time: Compliance increased to 84%.
- Decreased average case delay from 26 minutes to 18 minutes in the post-implementation period, a 29% improvement.
- Top delay reasons include:
- Surgeon site / side verification note
- Anesthesia site / side verification note, Block delays
- Pre-Surgical RN prep 'blue' card readiness
- Improved: Communication between Operative team and clarification of expected timeline for pre-operative metrics with timestamps

Conclusion

- Effective multi-disciplinary collaboration and defining expectations can improve FCOTS.
- Real-time feedback analyses help to drive compliance.
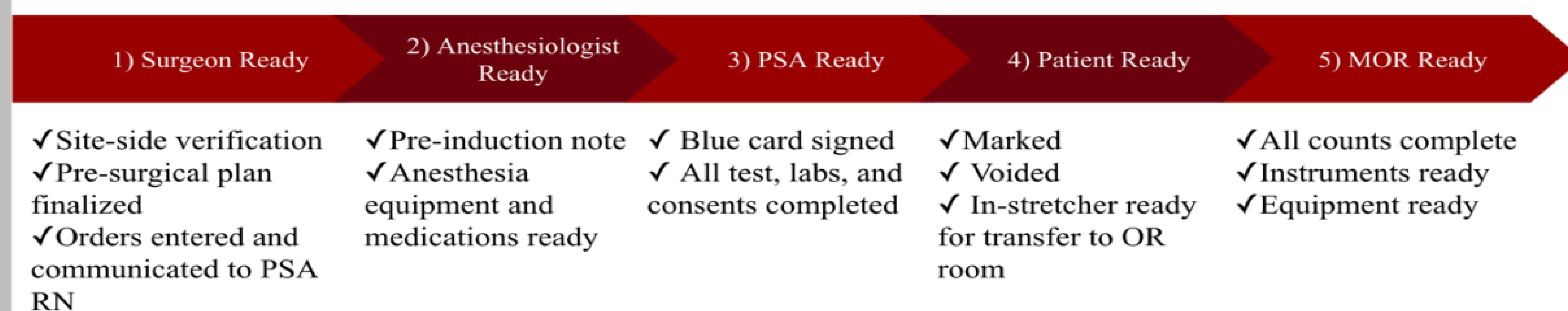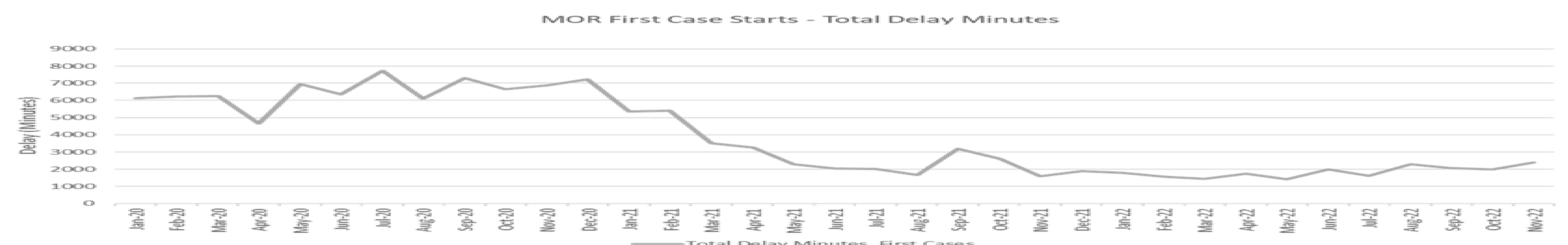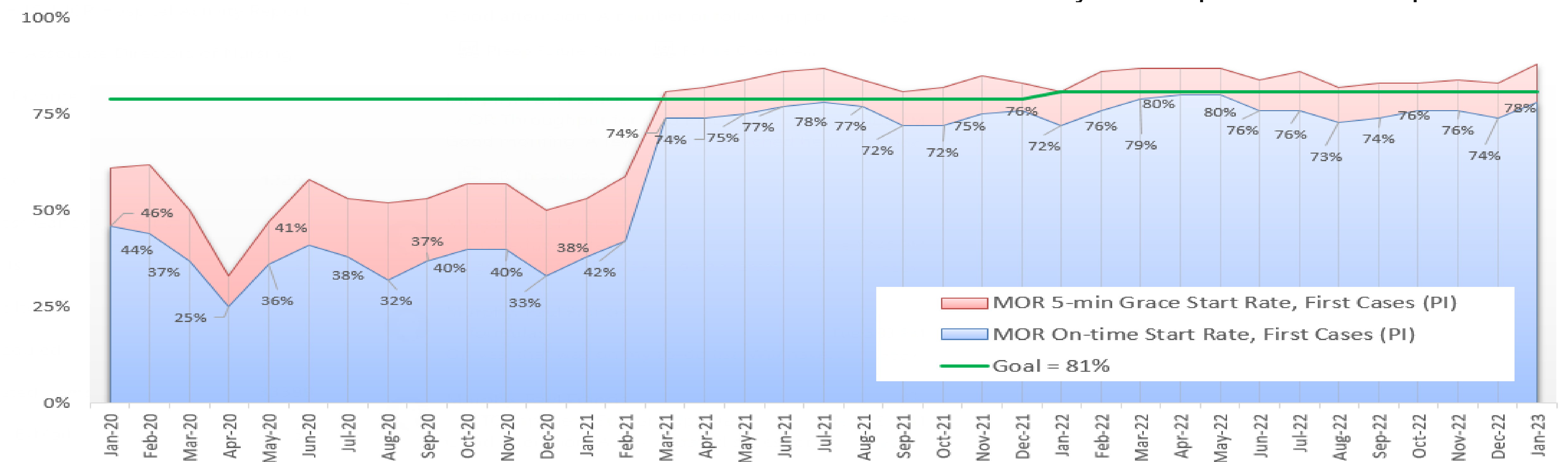

The Preoperative Process

1) Surgeon Ready	2) Anesthesiologist Ready	3) PSA Ready	4) Patient Ready	5) MOR Ready
✓Site-side verification ✓Pre-surgical plan finalized ✓Orders entered and communicated to PSA RN	✓Pre-induction note ✓Anesthesia equipment and medications ready	✓ Blue card signed ✓ All test, labs, and consents completed	✓Marked ✓ Voided ✓ In-stretcher ready for transfer to OR room	✓All counts complete ✓Instruments ready ✓Equipment ready

Figure 1: Components of the preoperative process

MOR First Case Starts - Total Delay Minutes