



Is It Time to Review The RUSH For Start Times in Operating Rooms from Patients' Perspectives? Our Limited Data Results Over One Month Period Based On Yes-No-Don't Know (YNDK) Scale

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Introduction

Quality assurance (QA) has become an essential ingredient of healthcare delivery. QA methods can review patient safety processes for patients across various healthcare locations [1-10], QA also involves catering to the patient satisfaction scores. One of the initiative for peri-operative efficiency and time management is on-time first-case start times (and rarely all case start times too). This initiative was initiated in 1990s [11-12] and has become engrained in the peri-operative management of operating room suites complex across the country [13-16]. However, it would be valuable to review whether this focus on case start times correlates with patients' satisfaction scores in regards to operating room timeliness. To this goal, a self-developed three-pronged score called Yes-No-Don't Know (YNDK) scale on a questionnaire was used in assessing the patients presenting to operating rooms in the main operating room complex in an University Hospital in the United States. This was based on assumption that YNDK scale can assess patients' satisfaction reports with regards to their surgeries occurring on scheduled time.

Objectives

The primary goal of this QA study was to ascertain whether patients' satisfaction scores with operating room timeliness on YNDK scale correlate with actual tardiness of operating room case start times.

Materials and Methods

After the Institutional Review Board deemed the QA study as Non-Human Participation Research, all post-anesthesia patients, who were having surgeries in the Main Operating Room Complex and were being discharged home same-day, were asked three QA questions during postoperative follow-up for rating on three-pronged Yes-No-Don't Know (YNDK) scale.

The three QA questions were (with patients' responses being Yes/No/Don't Know):

- Do you feel that your surgery was started ON-TIME?
- Do you feel that your surgery's start was DELAYED?
- Do you feel that you were RUSHED to the operating room?

Simultaneously, the following basic data for these patients was recovered from the CIS-Appbar section that included:

- Daily Case Delay Report
- SN Room and Time Audit Report:

- Scheduled Start Time
- Actual Start Time
- Early Time
- On-Time
- Delay Time
- Patient Entry in Preoperative Area Time
- Patient Entry in Operating Room Time

Results

Over a study period of one month in 2015, we had an actual Case Delay Report for 894 patients. Out of these 894 patients, logistically only 204 patients were able to complete the YNDK questionnaire. Among these 204 patients, six patients were excluded who responded Don't Know even for one out of the three questions (potentially questionnaire was not interesting to these six patients); and six patients were excluded who responded contradictory answers for ON-TIME surgery vs. DELAYED surgery questions (potentially double-checking questionnaire was incomprehensible to these six patients). Out of the remaining 192 patients' data, 96 (50%) patients did NOT have actual Case Delay. However, in the remaining 96 patients who were actually delayed, as many as 75% of them did NOT report (per YNDK scale) that their surgeries did NOT start ON-TIME. As compared to the actually delayed patients who reported that their surgeries were DELAYED, the

patients who did NOT recognize their CASE-DELAY were the patients whose average CASE-DELAY time was 42 minutes (median 29 minutes) and whose average preoperative holding area stay period was 1hour 59minutes. Comparatively, the actually delayed patients who recognized that their surgeries were DELAYED had stayed longer in preoperative holding area (average 3hrs 11minutes) and had longer CASE-DELAY times (average 2hrs 31 minutes and median 1hr 37minutes). Alternatively, three patients reported that they felt they were actually RUSHED into the operating rooms.

Conclusion

Even though there is a push to avoiding CASE-DELAYS leading to sometimes patients being RUSHED into the operating rooms, three-fourths of our patients did NOT recognize their CASE-DELAY despite staying in the preoperative holding area on an average of about two hours with a median case delay time of about thirty minutes. The story (of patient satisfaction report) was different only when the patients stayed on an average of more than three hours in the preoperative holding area with a median case delay time of more than ninety minutes.Â

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References

1. Agarwala AV, McCarty LK, Pian-Smith MC. Anesthesia quality and safety: advancing on a legacy of leadership. *Anesthesiology*. 2014 Feb;120(2):253-6.
2. Balzer F, Spies C, Schaffartzik W, Pappert D, Wernecke KD, Kuhly R, Boemke W. Patient safety in anaesthesia: assessment of status quo in the Berlin-Brandenburg area, Germany. *Eur J Anaesthesiol*. 2011 Oct;28(10):749-52.
3. RosÃ©n B, Arvidsson S, Nilsson S, RosÃ©n M, SvÃ¶rdsudd K, Arnlin M. Complications are significant result-indicators for quality control in surgery and anesthesiology. *Lakartidningen*. 1991 Sep 25;88(39):3188-93.
4. MuÃ±oz-RamÃ³n JM. Quality control in anesthesiology. *Rev Esp Anesthesiol Reanim*. 1995 Mar;42(3):91-5.
5. Haller G, Stoelwinder J, Myles PS, McNeil J.

- Quality and safety indicators in anesthesia: a systematic review. *Anesthesiology*. 2009 May;110(5):1158-75.
6. Belgian Professional Association of Specialists in Anesthesia and Resuscitation. Belgian standards for patient safety in anesthesia. An update. *Acta Anaesthesiol Belg*. 2002;53(1):5-9.
 7. Mackay P, Cousins M. Safety in anaesthesia. *Anaesth Intensive Care*. 2006 Jun;34(3):303-4.
 8. Zeitlin GL. Quality assurance programmes and patient safety in anaesthesia. *Ann Acad Med Singapore*. 1994 Nov;23(6 Suppl):154-6.
 9. Peterfreund RA, Driscoll WD, Walsh JL, Subramanian A, Anupama S, Weaver M, Morris T, Arnholz S, Zheng H, Pierce ET, Spring SF. Evaluation of a mandatory quality assurance data capture in anesthesia: a secure electronic system to capture quality assurance information linked to an automated anesthesia record. *Anesth Analg*. 2011 May;112(5):1218-25.
 10. Eichhorn JH. Review article: practical current issues in perioperative patient safety. *Can J Anaesth*. 2013 Feb;60(2):111-8.
 11. Mazzei WJ. Operating room start times and turnover times in a university hospital. *J Clin Anesth*. 1994 Sep-Oct;6(5):405-8.
 12. Windle PE, Barron K, Walker D, Cormier J. A COMMIT model utilization to improve first-case start time. *Lippincotts Case Manag*. 2001 Jan-Feb;6(1):38-46.
 13. Epstein RH, Dexter F. Influence of supervision ratios by anesthesiologists on first-case starts and critical portions of anesthetics. *Anesthesiology*. 2012 Mar;116(3):683-91.
 14. Wachtel RE, Dexter F. Reducing tardiness from scheduled start times by making adjustments to the operating room schedule. *Anesth Analg*. 2009 Jun;108(6):1902-9.
 15. Dexter F, Epstein RH. Typical savings from each minute reduction in tardy first case of the day starts. *Anesth Analg*. 2009 Apr;108(4):1262-7.
 16. Dexter EU, Dexter F, Masursky D, Garver MP, Nussmeier NA. Both bias and lack of knowledge influence organizational focus on first case of the day starts. *Anesth Analg*. 2009 Apr;108(4):1257-61.

Consort Diagram

Case Delay Reports Available During The Study Month

n=894

Patients who completed YNDK Questionnaire

n=204

Excluded Patients who responded Don't Know or Contradictory Responses

n=12

FINAL LIST: Total Questionnaires Eventually Analyzed

n=192

Patients who felt they were actually RUSHED into the operating rooms

n=3 (1.6%)

Patients with ACTUAL CASE DELAY

n=96 (50%)

Results In Patients with ACTUAL CASE DELAY (n=96)		
Å	Patients FELT surgery started ON-TIME	Patients FELT surgery's start was DELAYED
n(%)	72(75%)	24(25%)
Average CASE-DELAY time	42 minutes	151 minutes
Median CASE-DELAY time	29 minutes	97 minutes
Average Preoperative Holding Area Stay Period	119 minutes	191 minutes