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Room Hall E, Area D

The Impact of Minimizing Operating Room down Time: Does It Make a Difference?

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Introduction

Operating room turnover time has been an issue discussed at one time or another at every medical institution. However, there have been few successful reports of decreased turnover time and even less literature available on this topic involving a large academic center. This study evaluates a multi-departmental review and reassignment of operating room job tasks and its subsequent effect on turnover time and completion of the caseload in a 25 room operative suite.

Methods

A "Turnover Time Initiative" Committee was formed consisting of anesthesiologists, surgeons, and operating room nurses. This committee first compiled a list of all personnel involved in operating room turnover, no matter how minimal their role. This was a very large and diverse list comprised of Surgery and Anesthesiology faculty as well as housekeeping and hospital transportation staff. A current job description relative to turnover was established for each of these operative suite personnel and assessed by the committee. Necessary job modifications were made to minimize turnover time by making patient preparation and operating room preparation occur simultaneously as opposed to in series. For example, patients were brought to the operating room prior to completion of surgical instrument setup.

Turnover time was defined as the time between cases when there was no patient in the operating room. This was recorded daily by the circulating nurse in the operating room. Turnover times were reviewed by the chair- and vice-chairpersons of the Departments of Anesthesiology and Surgery as well as the medical and nursing directors of the operative suite. Turnovers longer than 25 minutes were flagged and anesthesiologists and nurses in these rooms were questioned as to why turnover was suboptimal. Reeducation of new job roles and tasks were instituted and reinforced as needed. The medical and nursing operative suite directors played a vital role in implementing, monitoring and reinforcing the new tasks assigned to the operative suite personnel.

Results

The figures below compare mean turnover time before and after the turnover initiative was implemented. They represent an eleven-week period comprised of 2828 operating room cases.

Conclusion

The reassignment of tasks in an effort to parallel patient and operating room preparations substantially decreased turnover time by 30% and doubled the number of cases with turnovers less than 25 minutes. This also resulted in completions of the operative suite caseload earlier in the day and 28% fewer rooms in use after 4:30 p.m.

Reference

1. Overdyk, Frank J.; Harvey, S.; Fishman, R.; Shippey, F. Successful Strategies for Improving Operating Room Efficiency at Academic Institutions. *Anesth Analg* 86 (4) 896-906, 1998
2. Cendan JC, Good M. Interdisciplinary work flow assessment and redesign decreases operating room turnover time and allows for additional caseload. *Archives of Surgery* 141: 65-69, 2006
3. Turnover: Can Strategies of ASCs work in the main OR? *OR Manager* 15 (4) 15-20.[figure1]

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Figure 1

