26458 - INTRODUCTION OF AN ANESTHESIA ASSISTANT INCREASED THE EFFICIENCY OF AN OPERATING ROOM

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INTRODUCTION

The purpose of this study was to assess whether the addition of an anesthesia assistant (AA) would increase the efficiency of an operating room (OR) as defined by decreased turnover time.

METHODS

An OR nurse was recruited to function solely as the AA. The AA performed the preoperative nursing checklist, assisted with induction and emergence, and set up anesthesia equipment between cases. There was one week of education and training prior to the start of the 4 week study. Using a prospective, crossover study design, a gynecology OR utilized the AA for 2 weeks while data was simultaneously collected for the control arm in the orthopedic OR. After 2 weeks the AA crossed over to the orthopedic OR and control data was simultaneously collected for the gynecology OR during this time. Demographic and time data were recorded and time differences were analyzed using a Student t-test. General linear modeling was used in multivariable analysis. Alpha less than 0.05 were used for all statistical tests.

RESULTS

The AA was involved in 40 turnovers in the intervention rooms versus 34 turnovers in the control rooms (difference not statistically different). Three turnover times were excluded (1 in the intervention arm and 2 in the control arm) because those rooms were put on hold for emergency cases. Overall, there was a 24% reduction in turnover times between the intervention and control rooms ($p < 0.05$). The mean turnover time in the intervention ORs was 16 minutes compared to 21 minutes in the control ORs. After controlling for OR (gynecology versus orthopedics), age, and ASA class the turnover times remained significantly lower in the intervention ORs compared to the control ORs ($p < 0.05$).

DISCUSSION

This was the first study to evaluate whether an AA increases the efficiency of an operating room. A 24% reduction in turnover time was demonstrated with the addition of an AA. Further study is required to see whether widespread implementation of AA's would be cost-effective, increase productivity, increase patient safety, and increase OR staff's job satisfaction.