

ABSTRACT NO. R12

**BATCH PROCESSING INCREASES OPERATING ROOM EFFICIENCY**

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Currently the VA and the orthopedic section has noted an increasing demand for total joint replacements at our facility and set out to develop a system in the operating room to accommodate this larger demand.

**Methods:** A core group of individuals involved in the care of primary total knee replacements were brought together and developed a plan for batch processing of 8 total knee replacements between two operating rooms with four patients in each room. Anesthesia was notified of the cases 2-3 weeks in advance and a system in the pre-op area was developed to expedite evaluation and IV placement. An additional nurse between the two rooms was used to help with the flow of the rooms and to prepare for the next case. Instruments for all cases were identified and numbered according to room and case number and the first two sets for each room were brought into the OR area. The EMS group had two additional personnel to help clean the rooms for turn-over. The last 3 months prior to this trial was evaluated and used for comparison.

**Results:** Prior to this trial, the anesthesia group averaged 41 +/- 11 minutes for induction; operative procedure time total of 2 hours +/- 19 minutes; and room turn-over time of 1 hour and 13 minutes +/- 10 minutes (all data is the average and standard deviation of 17 cases). During the trial we were able to decrease the anesthesia induction time by 17 minutes, the operating time by 35 minutes and the room turn-over time by 52 minutes. This saved on average of 1 hour and 45 minutes per case with a total of 12 hours between the two rooms being saved. The total time between two rooms to complete 8 primary total replacements was 8.5 hours.

**Conclusions:** Our facility has developed a method of batch processing that significantly improves the efficiency of the operating room in a VA setting. Important factors include communication of all parties involved include communication of all parties involved in the operative procedure and turnover and proper planning of the cases prior to the procedure.