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Patient Flow in Peri-Operative Services: Analysis of Factors that Impact OR Turn Over Time

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Introduction

The University Campus of UMass Memorial Medical Center has 16 operating rooms. The average Turn Over Time (TOT), defined as patient out of OR to next patient in, is 43 minutes. This is a source of dissatisfaction for the surgeons and has an impact on the patient experience. We did an observational study to map and time patient flow from the Surgical Admission Unit (SACU) to the Operating Room and the process for OR turn over and arrival of the next patient. The goal was to assess how the process could be modified to enhance the patient experience and improve surgeon satisfaction.

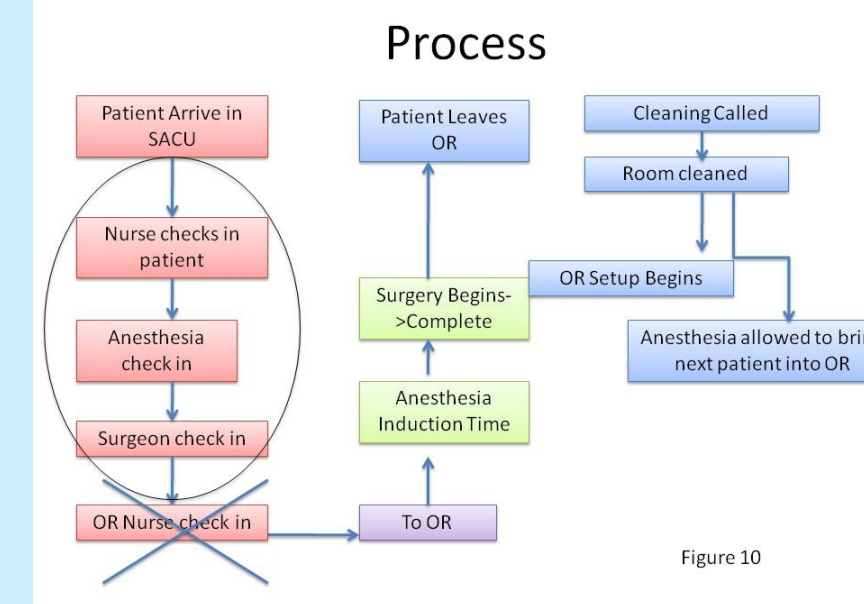
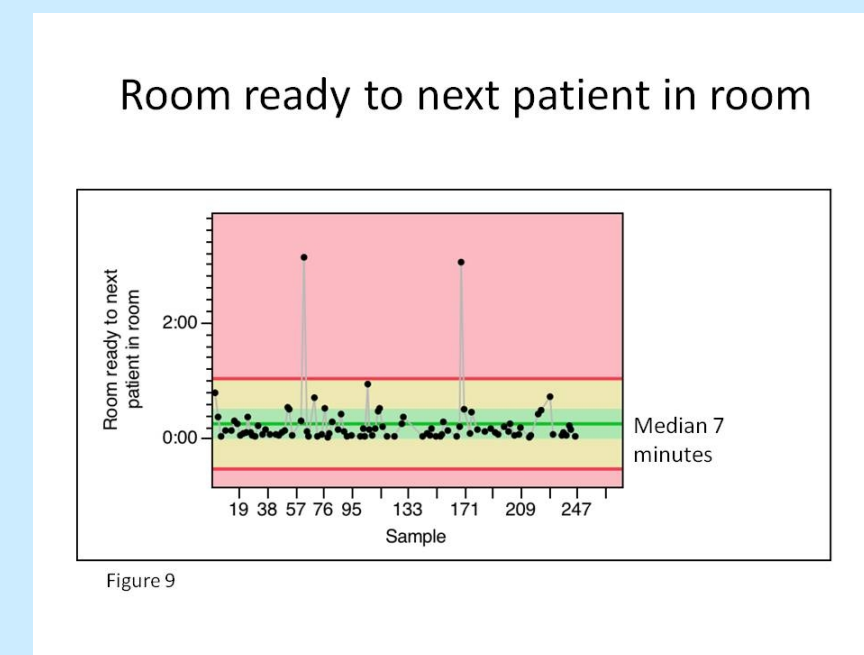
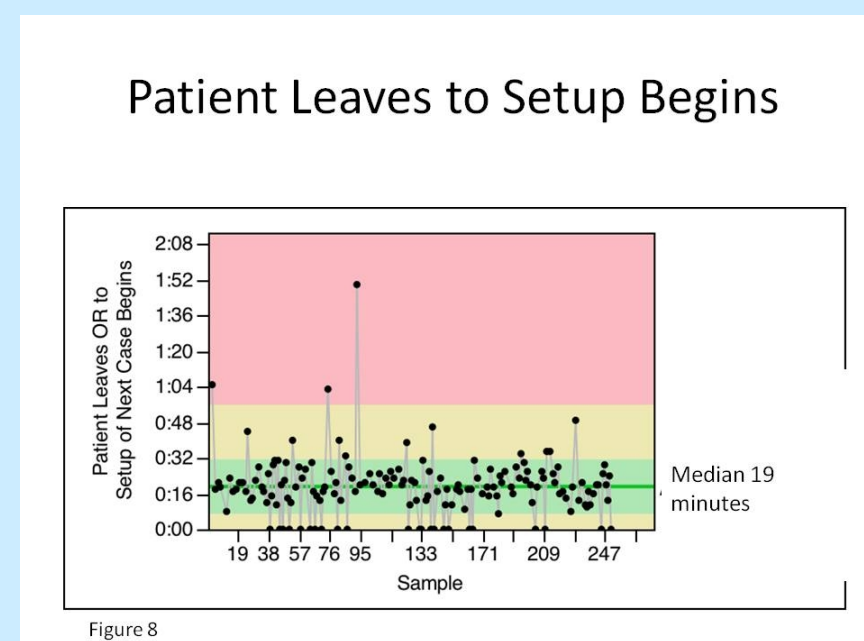
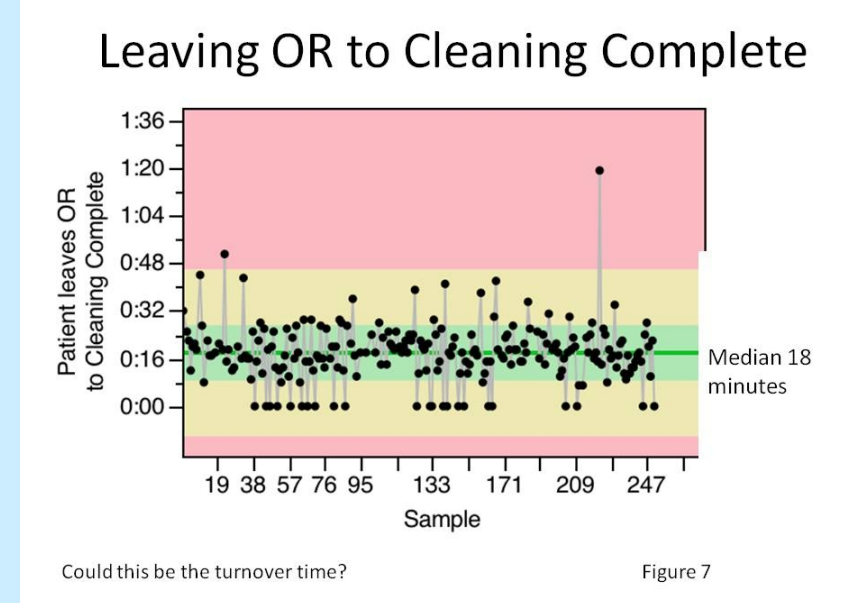
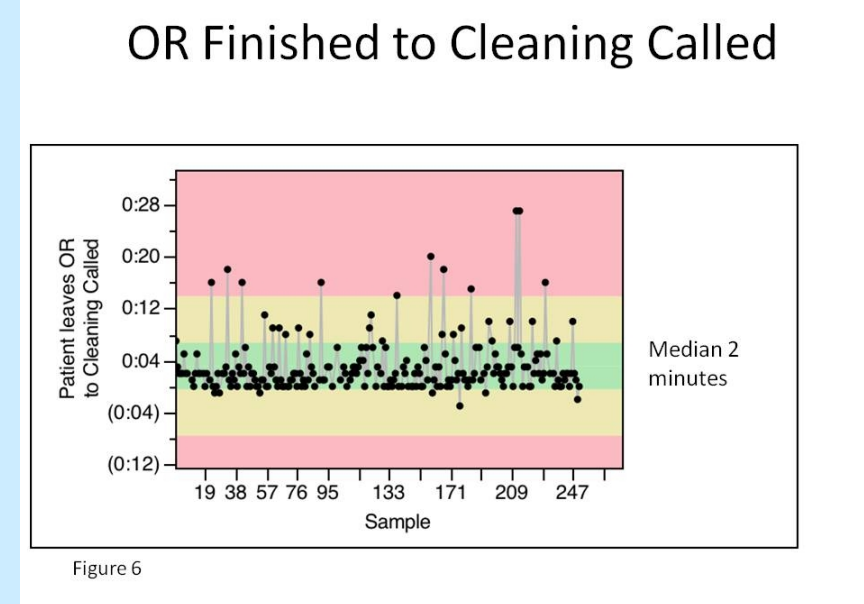
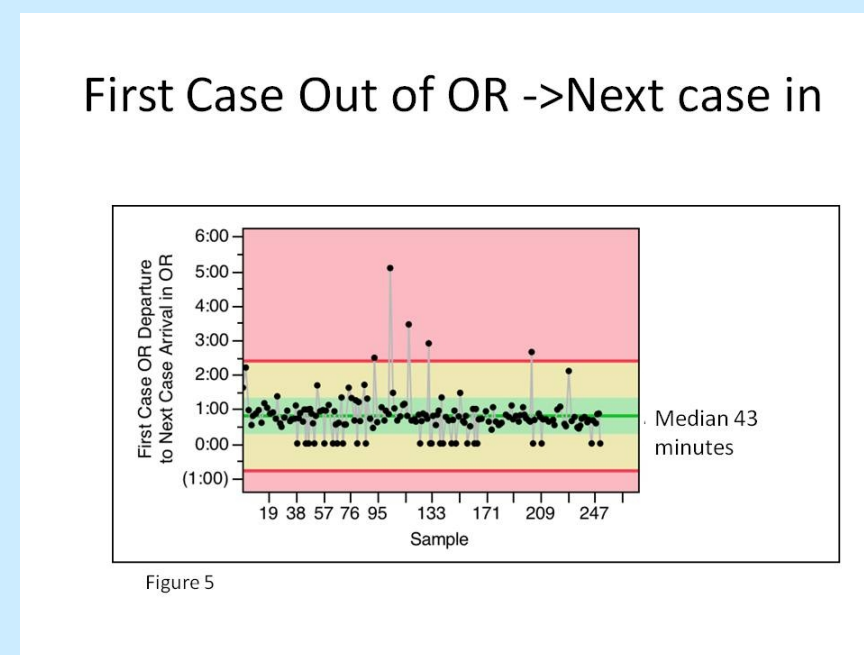
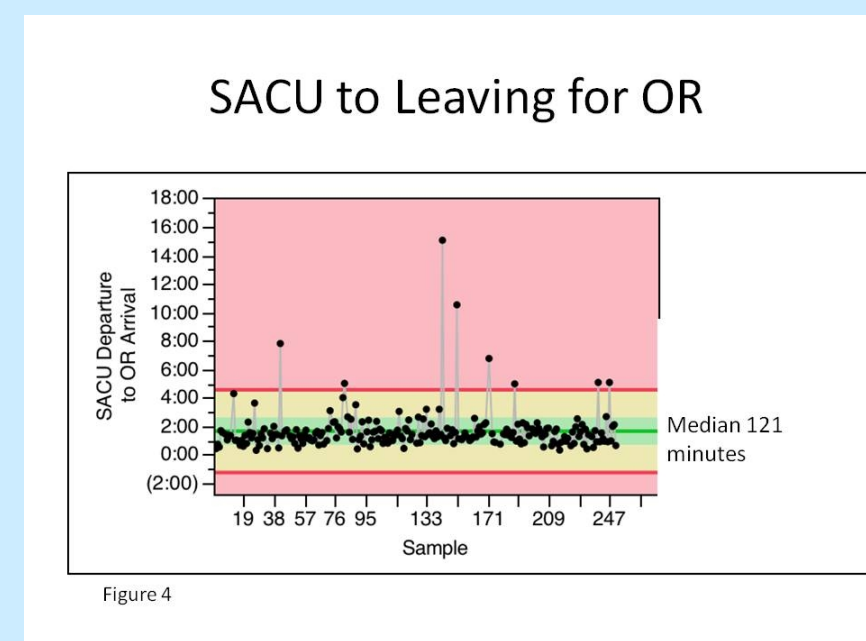
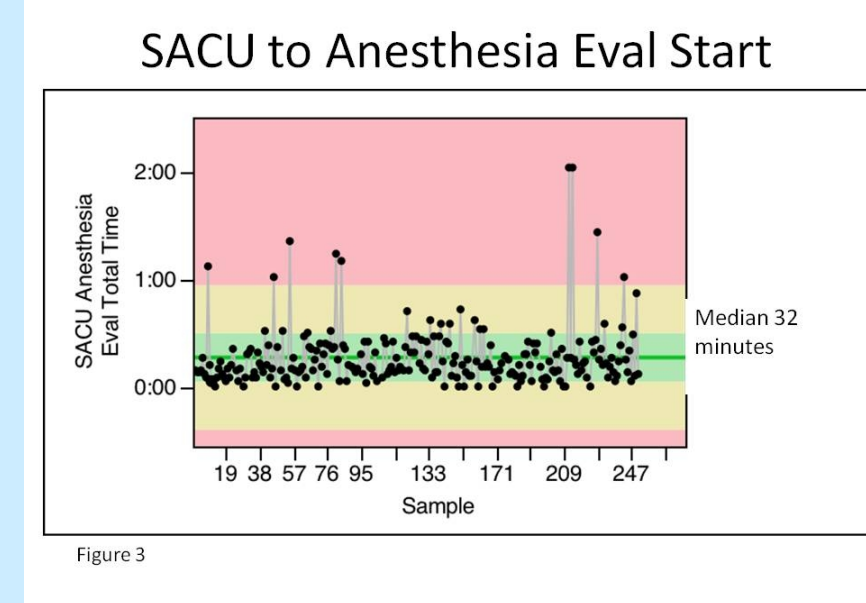
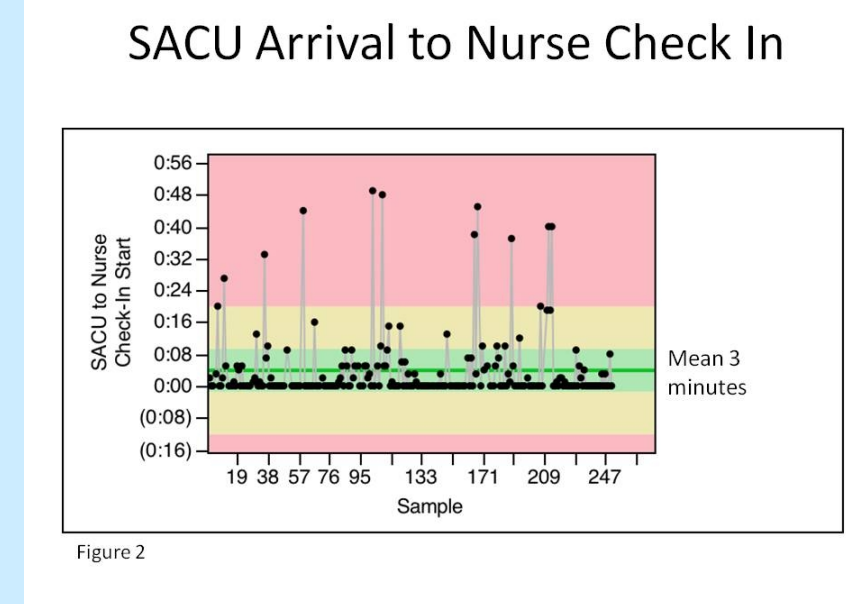
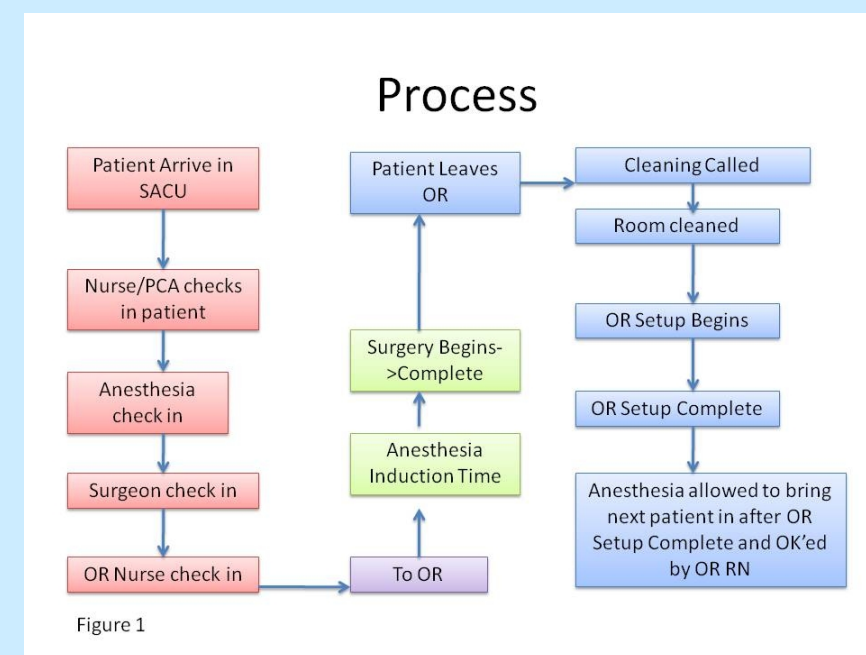
Methods

Observation and hand recording of three rooms in the University OR was performed from 6/13/2011 – 8/5/2011 (Orthopedic and Neurosurgery cases). Time points for all processes directly involving the patient were collected. Data collection was done by three undergraduate students. Support for the students was provided by Orthopedics, Anesthesiology and Peri-Operative Services.

Results

See Figure 1 for patient flow and turn over process map. Subsequent figures show time intervals from SACU to OR case completion, call for cleaning, completion of cleaning and arrival of next patient. Cleaning was complete in 18 minutes but TOT was 43 minutes because nondependent tasks were being performed in series (Figure 5).

Results



Summary

Nondependent tasks are being performed in series in the SACU and during OR turn over. There is an opportunity to decrease patient length of stay in the SACU. By doing parallel practice OR TOT can be decreased from 43 to 19 minutes if the anesthesia team is allowed to bring the patient in the room once the room is clean. This process can enhance the patient experience and improve surgeon satisfaction.

Next Steps

1. Perioperative Team Meeting
2. Explain – Engage – Execute
3. Pilot test of change
4. Parallel process
5. Anesthesia Team allowed to bring the next patient to the room when cleanup complete
6. Report observational study to assess impact on TOT