Lean Principles in the Anesthesiology Technician Workflow: Decreasing Waste to Improve Value Added Time

Aditi Dasgupta, MS3¹, Seth Christian, MD, MBA¹

¹Tulane University School of Medicine

Background

The Anesthesiology technicians working at Tulane University Medical Center are underutilized. Too much of the technicians' time is spent on non-value added activities such as searching for supplies or not knowing where to help. The purpose of our project is to use Lean methodology to decrease waste and improve the value added time of technicians. Value added activities include restocking and delivering supplies, transporting patients, turning over rooms and sterilizing equipment. This will allow our operating rooms and emergency department to operate more efficiently and more accurately.

Aim

Increase value added time of Anesthesiology technicians to 80% of total work time by December 1, 2015.

Project Design

We began with baseline data collection of the value added to non-value added time of anesthesia technicians. Informal discussions with the technicians, nurse coordinator and Anesthesiology physicians were held to elicit specific areas of waste. Technicians were observed and process measures were tracked using a stopwatch to identify which of the 8 keys areas of waste below contributed most to non-value added time.

Cycles

PDSA cycles were implemented to address specific areas of waste. Of the 8 categories of waste 4 were commonly observed: waiting, motion, inventory and transporting. Of these, inventory and waiting contributed the most to non-value added time.

Lessons Learned

Our data collection showed that lack of inventory and resulting searching and transporting was the number 1 contributor to waste. We implemented several interventions that were specific to our facility in the hopes of improving inventory and increasing value added time. Limitations of our study include observer bias, limited time frame, and small sample size. Longevity data will need to be collected.

References:


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