

Problem Definition

The operating room is an area where a significant number of adverse drug events occur.

Anesthesia providers administer potentially dangerous medications with very little oversight.

We looked for a way to decrease the likelihood that a lethal dose of phenylephrine (10mg) would be given to a patient.

Aims For Improvement

- Reduce adverse drug events in the operating room, specifically inadvertent high dose injection of phenylephrine
- Look at outcomes on a yearly basis

Intervention

We moved the high dose vial of phenylephrine (10mg/mL) to a locked cubicle in the pyxis.

This adds another level of protection to ensure that the provider recognizes what medication they are drawing up, without a significant increase in the time required to do so. This is important in the operating room where diagnosis and treatment can be emergent

Measurements/ Results

We hypothesize that this change will result in fewer adverse drug events at our institution

1. Nanji KC, Patel A, Shaikh S, Seger DL, Bates DW. Evaluation of perioperative medication errors and adverse drug events. *Anesthesiology* 2016;124:25–34.
2. Wahr JA, Abernathy III, JH, Lazarra EH, Keebler JR, Wall MH, Lynch I, et al. Medication safety in the operating room: literature and expert-based recommendations. *Brit J Anaesth* 2017;118:32–43

Next Steps and Lessons Learned

- Look at future data to determine if our intervention decreased adverse drug events in the operating room
- Continue to look at medications that are contained within the pyxis machine to see if there are any “look-alikes” or potentially dangerous medications
- Optimize medication location, labeling, coloring

