

#### INTRODUCTION

- Standardized handoffs are an important national patient safetv doal
- Vulnerable patients with many moving parts
- Best process not yet identified in our institution
- ≻ Ideal handoffs include:
  - > Accurate, up to date information
  - Decrease cognitive load on provider
  - Allow for clarification and feedback
- Our hypothesis: a standardized computerized checklist  $\geq$ would improve communication from the operating room to the Pediatric ICU
- Two outcome measures  $\geq$ 
  - > Primary: measure effectiveness in communication during handoff of care from the OR to the intensive care unit (ICU)
  - $\geq$ Secondary: compare different methods of communication

# **MATERIALS & METHODS**

- Prospective, observational study
- 70 observed handoffs in the Pediatric Intensive Care Unit
- Data collected by a non-participating observer
- Nineteen handoff items assessed



Image 1. Example of our handoff badge card.



Figure 1. Number of omissions when any visual aid was used compared to no visual aid used. There was a significant decrease in the number of omissions when a visual aid was used compared to when one was not used (P < 0.0001).



Figure 2. On average, there was a 0.96 decrease in the log count of omissions when a visual aid was used. Regardless of the use of a visual aid there was a significant decrease in the number of omissions over time (P = 0.02).



### DISCUSSION

- Effective handoffs are crucial to the safe care of patients during transition of care
- Using a standardized handoff tool improved communication  $\geq$ of important information from the operating room to the ICU
- The best process is institutionally dependent
- In our facility using an EMR system to facilitate handoff of  $\geq$ care improved communication

# **NEXT STEPS**

- Increased compliance in utilizing the computerized checklist
- Continuing education for rotating residents and faculty >
- Incorporate feedback as part of the handoff
- Expand the handoff process to include other areas

# REFERENCES

Arora, V. and Johnson, J., A model for building a standardized hand-off protocol., Joint Commission Journal on Quality and Patient Safety. Nov 2006, 32:11, 646-655. Bigham, M., et al., Decreasing handoff-related care failures in Children's Hospitals. Pediatrics. August 2014.134:2, e572-79.

Catchpole, K., et al., Patient handover from surgery to intensive care: using Formula 1 pit-stop and aviation models to improve safety and quality. Pediatric Anesthesia, 2007, 17:470-478. Kaufman, J., et al. A handoff protocol from the cardiovascular operating room to the cardiac ICU is associated with improvements in care beyond the immediate post-operative period. The Joint Commission Journal on Quality and Patient Safety, July 2013, 39:7, 306-311,

#### RESULTS

#### Frequency of Communication Omissions