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5-31-2017

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Recommended Citation

Caparosa, E. M.; Brown, A. M.; Stern, J.; Chevrollier, G.; Kucherov, V. M.; Woodward, S. G.; and Cowan, S. W., "Implementation of a Standardized Handoff System for a General Surgery Residency Program" (2017). *House Staff Quality Improvement and Patient Safety Conference (2016-2019).* Poster 61.
https://jdc.jefferson.edu/patientsafetyposters/61

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Implementation of a Standardized Handoff System for a General Surgery Residency Program

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Introduction

- The I-PASS Handoff Bundle is an evidence based, standardized set of educational materials designed to decrease handoff failures in patient care.
- Two of every three "sentinel events," the most serious events reported to the Joint Commission, are due to failures of communication, including miscommunication during patient care handoffs (1).
- Implementation of the I-PASS method results in decreased medical errors and preventable adverse events (2).
- There are few studies that evaluate this validated method in the context of a General Surgery residency program.
- We aim to implement the I-PASS system into the transitions of care process for General Surgery residents at our institution, and to analyze of the quality of the handoff process before and after the implementation.

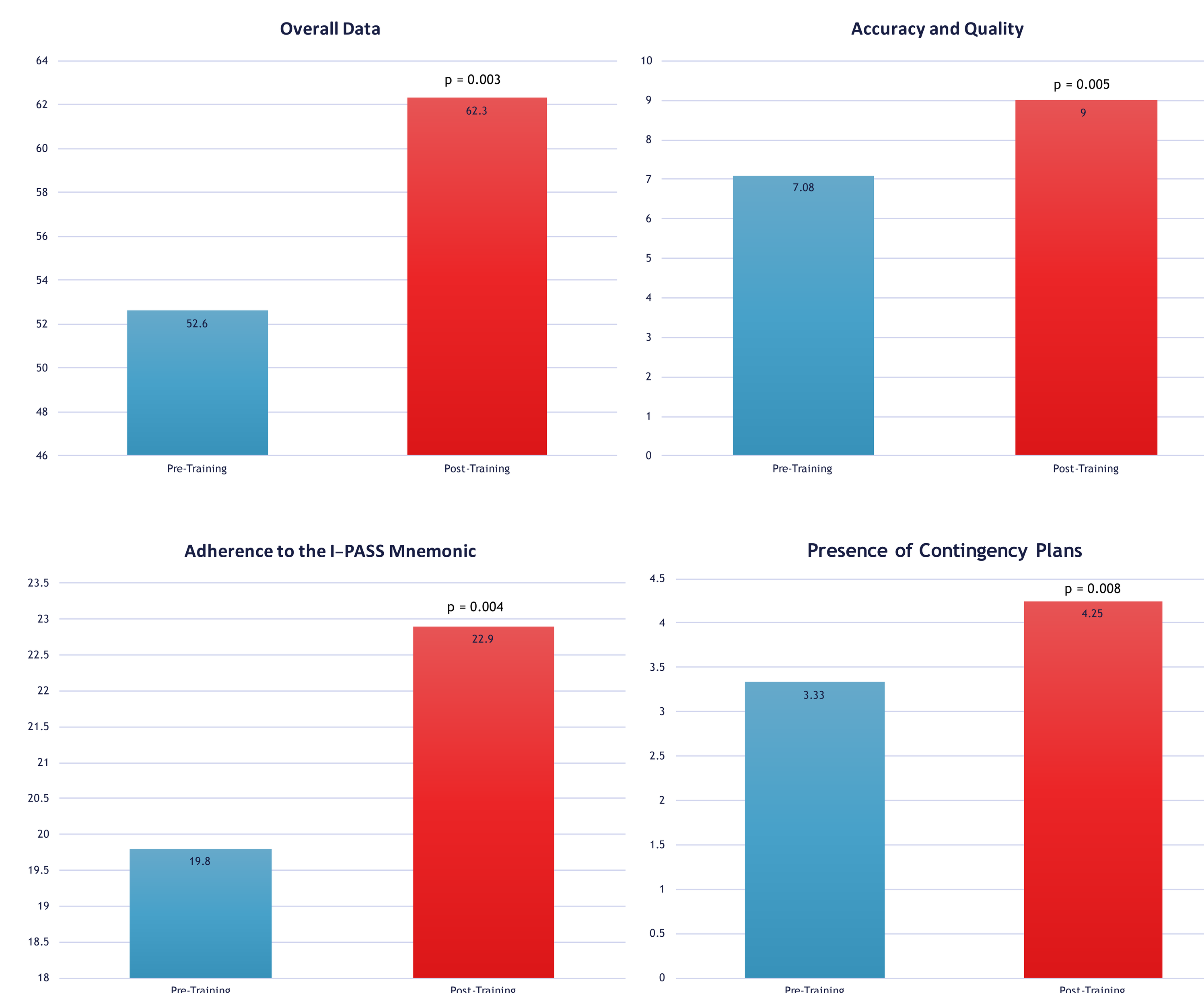
Methods

- Materials and curriculum from the validated I-PASS Handoff Bundle were reviewed and adapted for the Thomas Jefferson University Department of Surgery.
- A survey was administered to the junior surgical residents (PGY 1-3) prior to the curriculum training in order to assess the strengths and weaknesses of the current handoff process.
- Emphasis was placed on handoff content that included needs and information specific to surgical patients.
- Curriculum training consisted of educational videos created by our team that demonstrated handoffs both with the appropriate standardized handoff content, and those that had gaps in content.
- In-person training followed, with two hours of didactics and 1 hour of hands on practice using our adapted the tools and methods.
- A post-training survey was administered 3 weeks after the training session to evaluate the efficacy and compliance with the I-PASS method.

1. I-PASS Handoff

Mnemonic	Description
Illness Severity	Identification as stable, "watcher", or unstable
Patient Summary	Summary statement, events leading up to admission, hospital course, ongoing assessment, plan
Action List	To do list; timeline and ownership
Situation Awareness/ Contingency Planning	Know what's going on; plan for what might happen
Synthesis by Receiver	Written reminder to prompt receiver to summarize what was heard during verbal handoff

2. Pre-Training Versus Post-Training



The Y-axis of each graph indicates the average score for each survey variable.

Survey data graded adherence to the I-PASS mnemonic, presence of contingency plans, accuracy of illness severity, quality of patient summaries, and the overall impression of the pace of the handoff process. Each variable was scored on a 5-point scale (never (1), rarely, sometimes, usually, always).

Results

- A total of 12 General Surgery residents who completed the initial training session were surveyed post-training.
- Our results indicate favorable compliance with the I-PASS handoff method after the training process ($p=0.004$).
- Post-survey results indicate a significant improvement in presence of high quality contingency plans ($p=0.009$).
- Additionally, we demonstrate an improvement in the accuracy and quality of handoffs ($p=0.005$).

Conclusions

- The present study aimed to implement and evaluate the I-PASS system in the context of a General Surgery residency program, and thus to ultimately prevent adverse patient care events by decreasing handoff errors.
- We demonstrate an improvement in verbal communication and a decrease in handoff-related errors while still maintaining an optimal handoff pace with I-PASS use within the General Surgery Department.
- It is clear that compliance, accuracy, and efficiency of handoff communication are all improved with the I-PASS system.
- Further studies will aim to directly measure adverse events by reviewing medical charts during and after I-PASS implementation.
- Additionally, we plan to institute structured observation of the handoff process on a regular basis in order to ensure sustainability and quality.

References

Sentinel event data: root causes by event type. *The Joint Commission*. **2014**.

Starmer AJ et al. *The New England Journal of Medicine*. **2014**, 371, 1803.

Clarke et al. *Surgery*. **2017**, 161, 869.