

Improving Handoffs: Teaching beyond “Watch One, Do One”

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In this issue of the *Journal of Hospital Medicine*, Lee et al.¹ describe a randomized trial to assess the effectiveness of four different approaches to teaching handoffs with the goal of improving process measures related to interns’ handoffs. The Society of Hospital Medicine (SHM), The Joint Commission (TJC), Accreditation Council for Graduate Medical Education (ACGME), and others have all emphasized the importance of high-quality handoffs as an essential component of safe patient care.²⁻⁴ The ACGME specifically requires that all institutions that sponsor ACGME-accredited programs provide both structure and monitoring, and the SHM complements this with evidence-based guidelines for handoffs.

Lee’s team trained 4 groups of residents in handoffs using 4 different hour-long sessions, each with a different focus and educational format. A control group received a 1-hour didactic, which they had already heard; an I-PASS–based training group included role plays; and Policy Mandate and PDSA (Plan, Do, Study, Act) groups included group discussions. The prioritization of content in the sessions varied considerably among the groups, and the results should be interpreted within the context of the variation in both delivery and content.

Consistent with the focus of each intervention, the I-PASS–based training group had the greatest improvement in transfer of patient information, the policy mandate training group (focused on specific tasks) had the greatest improvement in task accountability, and the PDSA–training group (focused on intern-driven improvements) had the greatest improvement in personal responsibility. The control 60-minute didactic group did not show significant improvement in any domains. The lack of improvement in the control group doesn’t imply that the content wasn’t valuable, just that repetition didn’t add anything to baseline. One takeaway from the primary results of this study is that residents are likely to practice and improve what they are taught, and therefore, faculty should teach them purposefully. If residents aren’t taught handoff skills, they are unlikely to master them.

The interventions used in this study are neither mutually exclusive nor duplicative. In the final conclusions, the authors described the potential for a curriculum that includes elements from all 3 interventions. One could certainly imagine a handoff training program that includes elements of the I-PASS handoff bundle including role plays, additional emphasis on personal responsibility for specific tasks, as well as a focus on PDSA cycles of improvement for handoff processes. This likely could be accomplished with efficiency and might add only an hour to the 1-hour trainings. Evidence from the I-PASS study⁵ suggests that improving handoffs can decrease medical errors by 21% and adverse events by 30%; this certainly seems worth the time.

Checklist-based observation tools can provide valuable data to assess handoffs.⁶ Lee’s study used a checklist based on TJC recommendations, and the 17 checklist elements overlapped somewhat with the SHM guidelines,² providing some evidence for content validity. The dependent variable was total number of checklist items included in handoffs, a methodology that assumes that all handoff elements are equally important (eg, gender is weighted equally to if-then plans). This checklist also has a large proportion of items related to 2-way and closed-loop communication and therefore, places heavy weight on this component of handoffs. Adapting this checklist into an assessment tool would require additional validity evidence but could make it a very useful tool for completing handoff assessments and providing meaningful feedback.

The ideal data collection instrument would also include outcome measures, in addition to process measures. Improvements in outcome measures such as medical errors and adverse events, are more difficult to document but also provide more valuable data about the impact of curricula. In designing new hybrid curricula, it will be extremely important to focus on those outcomes that reflect the greatest impact on patient safety.

Finally, this study reminds us that the delivery modes of curricula are important factors in learning. The control group received an exclusively didactic presentation that they had heard before, while the other 3 groups had interactive components including role plays and group discussions. The improvements in different domains with different training formats provide evidence for the complementary nature. Interactive curricula involving role plays, simulations, and small-group discussions are more resource-intensive than simple didactics, but they are also likely to be more impactful.

Teaching and assessing the quality of handoffs is critical to the safe practice of medicine. New ACGME duty hour

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requirements, which began in July, will allow for increased flexibility allowing longer shifts with shorter breaks.⁷ Regardless of the shift/call schedules programs design for their trainees, safe handoffs are essential. The strategies described

here may be useful for helping institutions improve patient safety through better handoffs. This study adds to the bulk of data demonstrating that handoffs are a skill that should be both taught and assessed during residency training.

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