



NEWS RELEASE

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Study identifies characteristics associated with high fidelity during patient handoffs

(OAKBROOK TERRACE, Illinois, July 25, 2023) – Patient handoffs are a critical transition point. Evidence suggests standardized protocols during handoffs improve communication, teamwork, professionalism and patient outcomes. However, the factors underpinning adherence to standardized protocols are not well specified.

A new [study](#) in the August 2023 issue of *The Joint Commission Journal on Quality and Patient Safety* (JQPS) details the creation and implementation of The Handoffs and Transitions in Critical Care (HATRICC) study at the Perelman School of Medicine at the University of Pennsylvania, in Philadelphia. HATRICC involved the implementation of a standardized protocol for operating room (OR)-to-intensive care unit (ICU) handoffs.

The present study, conducted from 2014-2017 as part of the HATRICC study, used fuzzy-set qualitative comparative analysis (fsQCA) to characterize combinations of conditions associated with fidelity to the HATRICC protocol. Conditions were derived from post-intervention handoff observations yielding quantitative and qualitative data.

A total of 50 handoff observations were analyzed. At the individual handoff episode level, four conditions explained high fidelity to the HATRICC protocol:

1. Patient was newly admitted to the ICU.
2. Presence of an ICU provider.
3. Observer ratings of attention-paying by the handoff team.
4. Handoff took place in a quiet environment.

While none of the conditions were singly necessary or sufficient for high fidelity, three combinations equated to viable pathways for fidelity to HATRICC protocols:

1. Presence of the ICU provider and high attention ratings.
2. Newly admitted patient, presence of the ICU provider and quiet environment.
3. Newly admitted patient, high attention ratings and quiet environment.

These three combinations explained 93.5% of the cases demonstrating high fidelity.

An [editorial](#), “Improving Perioperative Handoffs: Moving Beyond Standardized Checklists and Protocols,” discusses the articles in the special August issue on perioperative handoffs.

“Large-scale adoption and reach of evidence-based handoff strategies should consider the core principles of implementation science,” the editorial authors wrote. “Using mixed methods (qualitative, quantitative) measurement systems will be essential to detect and understand the influence of handoff barriers and enablers on implementation strategies and outcomes.”

Also featured in the August issue are:

- [Bringing a Multiteam Systems Perspective to the Perioperative Context: Considerations for Future Research on Perioperative Handoffs](#) (Clemson University, South Carolina)
- [So Many Ways to Be Wrong: Completeness and Accuracy in a Prospective Study of OR-to-ICU Handoff Standardization](#) (University of Pennsylvania, Philadelphia)
- [Leveraging the Science of Teamwork to Sustain Handoff Improvements in Cardiovascular Surgery](#) (University of Texas Southwestern, Dallas)
- [Improving Handoffs in the Perioperative Environment: A Conceptual Framework of Key Theories, System Factors, Methods, and Core Interventions to Ensure Success](#) (literature review)
- [Anesthesiology Patient Handoff Education Interventions: A Systematic Review](#) (University of Alabama at Birmingham, Alabama)
- [Perioperative Handoff Enhancement Opportunities Through Technology and Artificial Intelligence: A Narrative Review](#) (literature review)
- [Handoff Effectiveness Research in periOperative environments \(HERO\) Design Studio: A Conference Report](#) (conference report)
- [Taking a Resilience Engineering Approach to Perioperative Handoffs](#) (commentary)

For more information, please visit the [JQPS website](#).

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Note for editors

The article is “[Patient- and Team-Level Characteristics Associated with Handoff Protocol Fidelity in a Hybrid Implementation Study: Results from a Qualitative Comparative Analysis](#),” by Meghan B. Lane-Fall, MD, MSHP; Christopher B. Koilor; Kathleen Givan; Tamar Klaiman, PhD, MPH; and Frances K. Barg, PhD, MEd. The article appears in *The Joint Commission Journal on Quality and Patient Safety* (JQPS), volume 49, number 8 (August 2023), published by Elsevier.

The Joint Commission Journal on Quality and Patient Safety

[The Joint Commission Journal on Quality and Patient Safety](#) (JQPS) is a peer-reviewed journal providing healthcare professionals with innovative thinking, strategies and practices in improving quality and safety in healthcare. JQPS is the official journal of [The Joint Commission](#) and [Joint Commission Resources, Inc.](#) Original case studies, program or project reports, reports of new methodologies or the new application of methodologies, research studies, and commentaries on issues and practices are all considered.