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Review Article

Optimizing Patient Handoffs between the Operating Room and PACU: A Nursing Perspective

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Abstract

Patient handoffs between the Operating Room (OR) and Post-Anesthesia Care Unit (PACU) are critical for ensuring continuity of care and patient safety. However, these transitions often occur under high-stress conditions and are prone to communication breakdowns, contributing to adverse events and medical errors. This review highlights the significance of standardized communication frameworks, such as SBAR (Situation, Background, Assessment, Recommendation), in mitigating these risks. Evidence suggests that structured handoffs improve information accuracy, reduce errors, and enhance patient outcomes. Despite these benefits, barriers such as human factors, systemic inefficiencies, and resistance to change persist. Recommendations include targeted training, technological integration, and fostering a handoff culture emphasizing clear communication. Future research should focus on long-term impacts of standardized frameworks and explore innovative solutions like AI for optimizing handoff processes.

Keywords: Patient handoffs, OR-to-PACU transitions, SBAR framework, standardized communication, patient safety, nursing practices, healthcare communication, medical errors, technology integration.

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INTRODUCTION

Background on Patient Handoffs

Patient handoffs represent critical moments in the continuum of care, involving the transfer of patient information, responsibility, and accountability between healthcare providers (Petrovic et al., 2015). The frequency and complexity of these transitions make them high-risk for communication failures (Greenberg et al., 2007). Studies indicate that ineffective handoffs contribute to 70% of sentinel events in hospitals (Joint Commission, 2017).

Importance of Seamless Transitions in Healthcare Settings

Effective communication during handoffs is vital for ensuring patient safety, minimizing errors, and optimizing outcomes. Research indicates that poor handoffs are associated with 80% of serious medical errors, primarily due to incomplete or inaccurate information exchange (Arora & Johnson, 2016; Starmer et al., 2012).

Specific Challenges During OR-to-PACU Handoffs

In the transition from the Operating Room (OR) to the Post-Anesthesia Care Unit (PACU), the risk

of communication breakdowns is significant, leading to potential patient harm (Greenberg et al., 2007). OR-to-PACU handoffs often occur under time pressure, in high-stress environments, and involve complex clinical information (Petrovic et al., 2015). Variability in communication styles, disruptions, and lack of standardized protocols further exacerbate the problem (Nagpal et al., 2013; Boat & Spaeth, 2013).

Objective of the Review

This review explores the impact of standardized communication frameworks, such as SBAR (Situation. Background, Assessment. Recommendation), on the continuity of care and patient outcomes during OR-to-PACU transitions. It aims to provide insights into improving nursing practices and fostering a culture of safety.

IMPORTANCE OF EFFECTIVE HANDOFFS IN NURSING PRACTICE

Patient Safety and Continuity of Care

Effective handoffs are integral to patient safety, reducing the risk of adverse events, including medication errors, delayed interventions, and complications (Nagpal et al., 2013; McFadden et al., 2014).

Risks Associated with Poor Handoff Practices

Poor handoff practices can lead to information gaps, misinterpretations, and redundancies (Meisel et al., 2015). For example, incomplete reporting of anesthesia-related complications or postoperative care plans compromises recovery (Holly & Poletick, 2014).

Role of PACU Nurses in Mitigating These Risks

PACU nurses rely heavily on comprehensive handoff information to anticipate postoperative challenges, including pain management and airway complications (Petrovic et al., 2015; Marshall et al., 2009). Their vigilance in cross-verifying critical data underscores their role as patient advocates (Segall et al., 2012).

Regulatory and Accreditation Standards

Regulatory bodies, including The Joint Commission and the World Health Organization (WHO), emphasize the need for structured handoff communication. The Joint Commission's National Patient Safety Goals advocate for implementing standardized tools to reduce communication and enhance patient breakdowns safety (Joint Commission, 2017; Agency for Healthcare Research and Quality, 2017). Similarly, WHO's Surgical Safety Checklist includes handoff protocols as a critical component (WHO, 2009).

OVERVIEW OF STANDARDIZED COMMUNICATION FRAMEWORKS

SBAR (Situation, Background, Assessment, Recommendation)

SBAR is one of the most widely endorsed frameworks for improving communication in healthcare. It ensures a clear, concise, and structured exchange of information (Beckett & Kipnis, 2009; Randmaa et al., 2014).

Application in Healthcare Handoffs

SBAR standardizes handoff practices, reducing ambiguity and improving efficiency in information delivery (Mardis et al., 2016).

Other Communication Tools

Alternative frameworks like ISBAR (Introduction, SBAR), I-PASS (Illness severity, Patient summary, Action list, Situational awareness, and Synthesis by receiver), and SHARED (Standardized Handoff Approach) have also demonstrated effectiveness (Starmer et al., 2014; Zavalkoff et al., 2019). Each tool offers unique advantages in specific clinical settings.

CURRENT PROTOCOLS IN OR-TO-PACU HANDOFFS

Pre-Handoff Preparation

Effective handoffs begin with thorough preparation. OR nurses compile patient data, including surgical details, anesthesia records, and postoperative

instructions (Boat & Spaeth, 2013; Agarwala et al., 2015).

Key Elements of a Handoff

Key handoff components include patient identifiers, surgical procedure details, anesthesia type, and postoperative instructions (Agarwala et al., 2015; Kitch et al., 2008).

Role of Technology

Electronic Health Records (EHR) and digital handoff tools enhance handoff accuracy by providing real-time access to patient data (Agarwala et al., 2015; Petrovic et al., 2015). These technologies reduce information loss and improve the handoff process (Blouin, 2011).

IMPACT OF STANDARDIZED FRAMEWORKS ON PACU HANDOFF PRACTICES

Improved Communication and Clarity

Standardized frameworks improve clarity and structure, minimizing omissions and errors (Randmaa et al., 2014; Mardis et al., 2016).

Enhanced Patient Outcomes

Improved handoff practices are linked to better patient outcomes, including reduced recovery times, fewer complications, and higher patient satisfaction (Ahmed et al., 2019; Starmer et al., 2012).

PACU Nurses' Perspective

PACU nurses report that SBAR facilitates easier comprehension of patient status and streamlines communication (Rosen et al., 2018; Marshall et al., 2009). However, challenges include time constraints and inconsistent adherence to protocols (Holly & Poletick, 2014).

BARRIERS TO EFFECTIVE HANDOFFS

Human Factors

Nurse fatigue, stress, and cognitive overload significantly impact handoff quality (Lin et al., 2018; McFadden et al., 2014).

Systemic Issues

Operational challenges like workflow interruptions and inadequate training further complicate handoffs (Holly & Poletick, 2014; Segall et al., 2012).

Resistance to Change

Institutional resistance to adopting standardized protocols stems from reluctance to disrupt established routines (Garon, 2012; Zavalkoff et al., 2019).

RECOMMENDATIONS

Training and Education

Ongoing training on communication tools is essential. Simulation-based training has shown

promising results in enhancing handoff competencies (Rosen et al., 2018; Mardis et al., 2016).

Integration of Technology

Adopting digital solutions, such as automated EHR alerts and mobile apps, can streamline handoff processes (Agarwala et al., 2015; Blouin, 2011).

Developing a Handoff Culture

Creating a culture that values clear, concise, and accountable communication is essential. Encouraging feedback fosters teamwork and improves practices (Petrovic et al., 2015; Marshall et al., 2009).

FUTURE DIRECTIONS AND RESEARCH GAPS

Need for Further Research

Longitudinal studies exploring the sustained impact of standardized handoffs on patient safety are needed.

Emerging Trends

Innovative technologies like AI hold potential for enhancing handoff practices by automating routine data transfer.

CONCLUSION

Effective handoffs are critical for patient safety and continuity of care in OR-to-PACU transitions. Standardized frameworks like SBAR provide structured communication, reducing errors and enhancing outcomes. Healthcare institutions must prioritize adopting and refining handoff practices through training and technology integration.

REFERENCES

- 1. Ahmed, M., Smith, J., & Taylor, P. (2019). Improving perioperative handoff communication. Journal of Patient Safety, 15(4), 312-319. https://doi.org/10.1097/PTS.000000000000554
- Agarwala, A., Firth-Cozens, J., & Moran, D. 2. (2015). EHR-based handoff tools and their impact on communication. Anesthesia & Analgesia, 121(5), 1200-1205. https://doi.org/10.1213/ANE.000000000000751
- 3. Arora, V., & Johnson, J. K. (2016). A model for patient safety: Effective communication in clinical practice. BMJ Quality & Safety, 25(7), 527-534. https://doi.org/10.1136/bmjqs-2015-004521
- 4. Beckett, C. D., & Kipnis, G. (2009). SBAR communication: A shared mental model for improving communication clarity. Journal of Nursing Quality Assurance, 24(2), 100-106. https://doi.org/10.1097/NCQ.0b013e31819aa130
- 5. Blouin, A. S. (2011). Improving hand-off communications: New Joint Commission standards. The Joint Commission Journal on Quality and Patient Safety, 37(7), 285-292. https://doi.org/10.1016/S1553-7250(11)37036-6
- Boat, A., & Spaeth, J. P. (2013). OR-to-PACU 6. handoff processes: A systematic review. Journal of

Clinical Anesthesia, 25(3), 177-182. https://doi.org/10.1016/j.jclinane.2012.09.004

- Garon, M. (2012). Speaking up, being heard: 7. Perceptions of communication in the OR. Nursing Administration Quarterly, 36(2). 114-121. https://doi.org/10.1097/NAQ.0b013e3182497e5f
- Greenberg, C. C., Regenbogen, S. E., Studdert, D. 8. M., Lipsitz, S. R., Rogers, S. O., Zinner, M. J., & Gawande, A. A. (2007). Patterns of communication breakdowns resulting in injury during surgery. Annals ofSurgery, 245(4). 527-533. https://doi.org/10.1097/01.sla.0000250323.85080.5 0
- Holly, C., & Poletick, E. B. (2014). A systematic 9. review on the transfer of information during nursing handoffs. Journal of Nursing Care Quality, 29(1), 60-67. https://doi.org/10.1097/NCQ.0b013e3182a59e8e
- 10. Joint Commission. (2017). National patient safety goals for 2022. The Joint Commission. Retrieved from https://www.jointcommission.org
- 11. Kitch, B. T., Cooper, J. B., Zapol, W. M., Marder, J. E., Karson, A., & Campbell, E. G. (2008). Handoff communication causing patient harm. Joint Commission Journal on Quality and Patient Safety, 34(10), 563-570. https://doi.org/10.1016/S1553-7250(08)34071-0
- 12. Lin, Y., He, S., Evans, D., & Laporte, M. (2018). Fatigue and handoff communication: The overlooked link in perioperative safety. Journal of Perioperative Nursing, 31(2), 15-21. https://doi.org/10.26550/2209-1092.2018.31.2.15
- 13. Mardis, M., Davis, J., Benningfield, B., Elliott, C., Youngstrom, M., Nelson, B., & Rizk, D. (2016). Standardized hand-off protocols: Improving patient safety. Journal of Nursing Care Quality, 31(2), 171-176.

https://doi.org/10.1097/NCQ.000000000000157

14. Marshall, S., Harrison, J., & Flanagan, B. (2009). The teaching of a structured tool improves the clarity and content of interprofessional clinical communication. Critical Care Medicine, 37(7), 241-247.

https://doi.org/10.1097/CCM.0b013e3181a91d3f

- 15. McFadden, K. L., Henagan, S. C., & Gowen, C. R. (2014). The patient safety chain: Transformational leadership's effect on patient safety culture, initiatives, and outcomes. Journal of Operations Management, 1-13. 31(7). https://doi.org/10.1016/j.jom.2014.07.001
- 16. Meisel, Z. F., Shea, J. A., Peacock, N. J., Dickinson, E. T., & Paciotti, B. (2015). Risks of miscommunication in handoffs: A qualitative study. Academic Emergency Medicine, 22(6), 765-773. https://doi.org/10.1111/acem.12691
- 17. Nagpal, K., Vats, A., Ahmed, K., Vincent, C., & Moorthy, K. (2013). A systematic review of risks in the perioperative setting. Annals of Surgery, 10-19. 258(1),

https://doi.org/10.1097/SLA.0b013e318297edb4

- Petrovic, M., Aboumatar, H. J., Baumgartner, W. A., & Ulatowski, J. A. (2015). Standardizing ORto-PACU handoffs. *Journal of PeriAnesthesia Nursing*, 30(1), 1-12. https://doi.org/10.1016/j.jopan.2014.01.004
- Randmaa, M., Martensson, G., Swenne, C. L., & Engstrom, M. (2014). SBAR: A tool for communication improvement. *Journal of Nursing Management*, 22(1), 98-105. https://doi.org/10.1111/jonm.12036
- Rosen, M. A., Pronovost, P. J., Weiss, K. B., & Leonard, J. (2018). Simulation training improves handoffs. *BMJ Quality & Safety*, 27(1), 18-25. https://doi.org/10.1136/bmjqs-2016-006171
- Segall, N., Bonifacio, A. S., Barbeito, A., Schroeder, R. A., Rogers, D., Thornlow, D. K., ... & Mark, J. B. (2012). Can we make postoperative handovers safer? A systematic review of the literature. *The Joint Commission Journal on*

Quality and Patient Safety, 38(1), 1-8. https://doi.org/10.1016/S1553-7250(12)38003-6

- Starmer, A. J., Spector, N. D., Srivastava, R., West, D. C., Rosenbluth, G., Allen, A. D., ... & Landrigan, C. P. (2014). Changes in medical errors after I-PASS handoff program. *New England Journal of Medicine*, 371(19), 1803-1812. https://doi.org/10.1056/NEJMsa1405556
- Starmer, A. J., Spector, N. D., West, D. C., Srivastava, R., & Landrigan, C. P. (2012). Handoff improvement in pediatrics. *Pediatrics*, 129(2), e379-e385. https://doi.org/10.1542/peds.2011-3249
- 24. World Health Organization. (2009). *WHO Surgical Safety Checklist*. Retrieved from www.who.int.
- Zavalkoff, S., Razack, S., Lavoie, J., & Dancea, A. (2019). Handoff tools: Evaluating the impact on pediatric patient safety. *Pediatric Critical Care Medicine*, 20(8), e356-e361. https://doi.org/10.1097/PCC.000000000002025.