Optimizing E-Data Management to Enhance PeriAnesthesia Nurse Residents' Onboarding: A Study

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Introduction: Effective onboarding is crucial in preparing nurse residents for clinical readiness, particularly in fast-paced perianesthesia environments. As healthcare becomes increasingly digitized, electronic data management systems (EDMS) present new opportunities to improve the onboarding process through enhanced access to training tools, documentation, and competency tracking.

Identification of the Problem: Traditional onboarding practices often depend on paper-based materials or fragmented electronic tools, resulting in redundancy, inefficiencies, and delays. These issues hinder timely integration of new staff, threaten patient safety, and place additional strain on educators. Within perianesthesia units, where precision and timely decision-making are critical, these onboarding gaps can be especially consequential.

QI Question/Purpose of the Study: What are the most effective and efficient electronic data management strategies to optimize the onboarding process for nurse residents in healthcare settings? The purpose of this quality improvement (QI) project was to evaluate the impact of implementing a centralized EDMS on nurse resident onboarding, with a focus on usability, workflow efficiency, and user satisfaction.

Methods: A pilot EDMS was deployed during a nurse resident onboarding cycle. Participants included new nurse residents, educators, and onboarding coordinators. Surveys measured user perceptions regarding system usability, time efficiency, and process effectiveness. Quantitative and qualitative feedback were collected and analyzed.

Outcomes/Results:

1. 100% of participants reported the EDMS was easy to use
2. 73–87% rated its efficiency and effectiveness positively
3. 80% agreed it saved time during the onboarding process

These outcomes indicate a strong positive reception and highlight the system's capacity to streamline onboarding.

Discussion: The EDMS provided centralized, timely access to essential documents, training modules, and competency assessments. This reduced administrative burden and allowed nurse educators to focus more on clinical teaching, improving the overall onboarding experience.

Conclusion: Implementing an EDMS significantly enhanced the efficiency and effectiveness of nurse resident onboarding, supporting safer and faster transitions into clinical roles—particularly valuable in high-acuity perianesthesia settings.

Implications for perianesthesia nurses and future research: Adoption of EDMS in perianesthesia units can improve staff preparedness, decrease onboarding errors, and enhance patient safety. Future research should evaluate long-term effects on nurse retention, competency development, and customization of EDMS for perioperative care environments.