

# Optimizing E-Data Management to Enhance PeriAnesthesia Nurse Residents'

## Onboarding: A Study

Charles Alba, MAN, BSN, RN, Joshila Muraleedharapanicker, BSN, RN, CMSRN, Maricris Llagas, MSN, RN, CGRN, CMSRN, Hazzel Gomez, MSN, BSN, RN, CPAN, CAPA, NPD-BC

### Quality



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### Background

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.

### Goal

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.

### Methodology

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

### Results

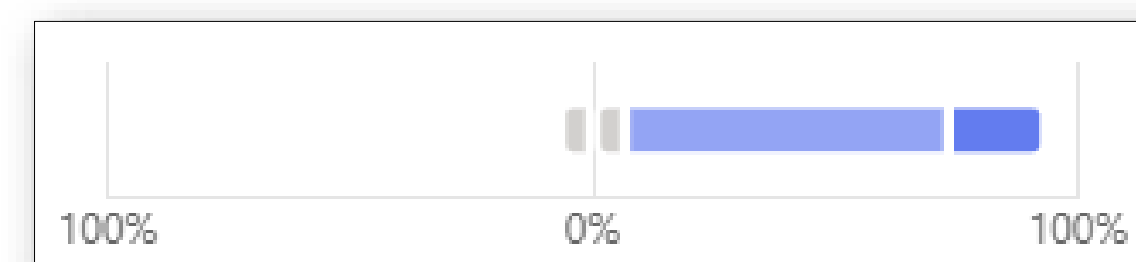
Outcomes indicate a strong positive reception and highlight the system's capacity to streamline onboarding:

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

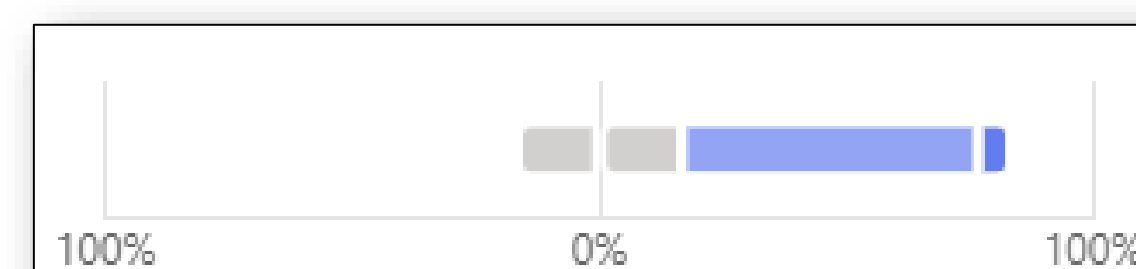
### Analysis

This project showed that implementing a centralized electronic data management system (EDMS) improved perianesthesia nurse resident onboarding by making it easier, more efficient, and more satisfying. The system streamlined access to materials and standardized processes, reducing workload for learners and educators and allowing greater focus on clinical skills. Its consistency also helped minimize training errors, making the EDMS a practical and effective tool for safer, smoother onboarding.

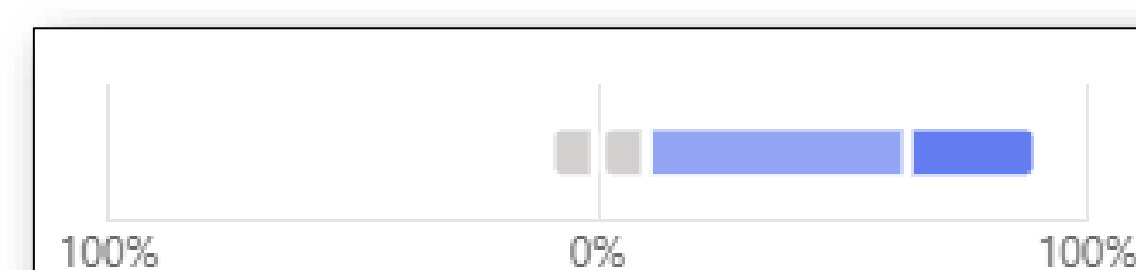
Survey responses showed that all participants found the EDMS at least easy to use—most rating it “Easy” and several “Very easy,” with only one neutral response—indicating strong usability and smooth navigation during orientation.



Survey results showed strong perceived effectiveness of the EDMS, with most participants rating it “Very effective,” one “Extremely effective,” and the remainder “Moderately effective,” indicating that approximately 73–87% viewed the system's efficiency and effectiveness positively.



Eighty percent of participants agreed or strongly agreed that the EDMS saved time during onboarding, with no negative responses, showing it effectively streamlined the process compared to previous methods.



### Conclusions

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.

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.

### Interventions

The primary intervention in this quality improvement project was the implementation of a centralized electronic data management system (EDMS) to support the onboarding of perianesthesia nurse residents. The EDMS consolidated onboarding materials—including orientation documents, training modules, competency checklists, and evaluation tools—into a single, easily accessible digital platform, replacing fragmented and paper-based processes and enabling real-time access for nurse residents, educators, and onboarding coordinators. Standardized workflows were embedded to promote consistency in training delivery, streamline documentation, and ensure timely completion of required competencies, while structured guidance and orientation supported user adoption and optimized usability. In addition, a secondary intervention incorporated feedback mechanisms and continuous monitoring to evaluate system effectiveness and user experience, with surveys assessing perceptions of usability, efficiency, and satisfaction. This feedback informed iterative improvements to better align the EDMS with clinical workflows and user needs, while automation of tracking and documentation reduced administrative burden, allowing educators to focus more on clinical teaching and mentorship. Together, these interventions enhanced onboarding efficiency, improved user engagement, and supported safer, more effective transitions into perianesthesia clinical practice.



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