

Quality Improvement Initiative: Staff Inservice Improves Knowledge and Comfort Level on Postoperative Flap Monitoring

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Abstract Text:

Purpose: Clinical exam remains the gold standard for free flap monitoring. Accessibility to autologous breast reconstruction is expanding, yet the intensive postoperative care resources required are not universally available. Most hospitals do not have dedicated nursing staff specifically trained in free flap monitoring. Here, we describe our experience with surgeon-directed inservice for staff education on postoperative free flap monitoring.

Method: As part of our quality improvement initiative, a 15-minute inservice session with in-person, slideshow-based presentation was provided to the surgical intensive care unit (SICU) registered nursing (RN) staff. The presentation covers general concepts of free flap reconstruction, ERAS protocol, free flap monitoring (clinical exam and adjuncts including handheld doppler and near-infrared spectroscopy based instruments), hemodynamic monitoring, as well as common postoperative complications. A multiple choice exam on the staff's knowledge and comfort level on flap monitoring was administered before and immediately after the presentation. The same exam was repeated after 6 months to a group of nursing staffs of the same unit. Statistical analysis was performed using paired t-test.

Results: A group of six intensive care RNs participated in the initial inservice presentation. The average pre-inservice exam score was 50 ± 16 points (for total of 100 points) and their immediate post-inservice score significantly improved to 96 ± 10 points ($p = 0.0001$). When the inservice was repeated after 6 months, the group of RNs of the same unit scored 79 ± 19 , which remains significantly higher compared to the pre-inservice score 6 months prior ($p = 0.02$). On a 5-point Linkert scale, the RNs reported an average of 1.5 ± 0.5 on their comfort level with postoperative care of free flap patients. Their comfort level improved to 4.8 ± 0.2 out of 5 immediately after the inservice ($p < 0.0001$), and this was maintained at a reported level of 3.7 ± 1.5 after 6 months (when compared

with initial scores, $p=0.009$). Despite the fact that these were not identical groups of individual RNs, these results should be considered as representing the SICU as a unit given the RNs were typically assigned to the patients randomly.

Conclusion: Nursing staff benefits from inservice review on postoperative flap monitoring with better knowledge and comfort level in patient care, however attrition occurs over time. We plan to design a self-learning module available to all perioperative and postoperative staff for frequent review and training of new personnel.

Tracks:

Clinical

Image

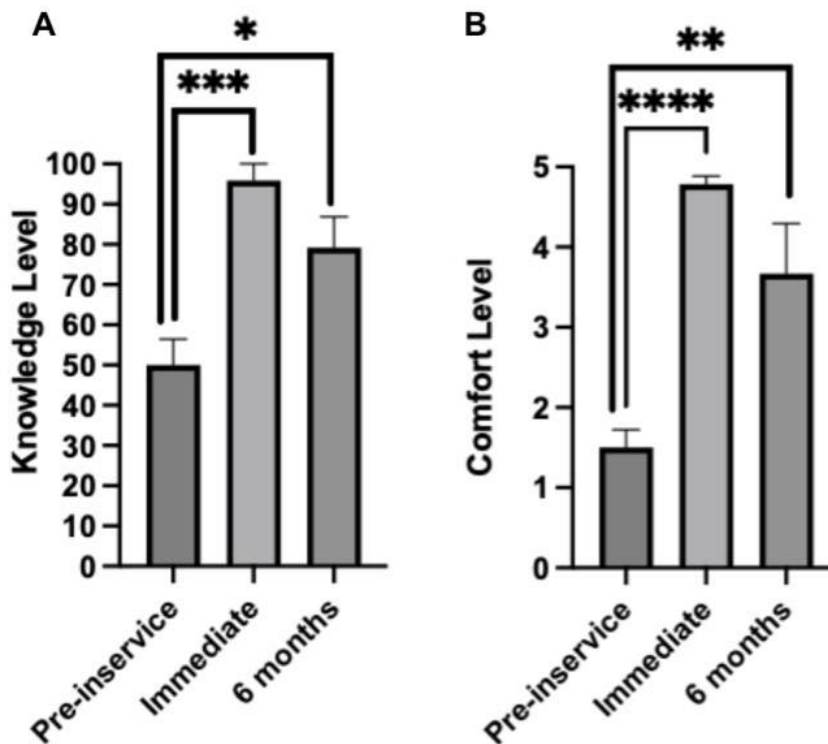


FIGURE 1. Knowledge and comfort levels on postoperative free flap monitoring pre-inservice and immediate and 6 months after the inservice. (* $p<0.05$; ** $p<0.01$; *** $p<0.001$; **** $p<0.0001$)