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Arterial Line Education for RHCM Nurses

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BACKGROUND

Regional Heart Center Medical (RHCM) registered nurses (RNs) are occasionally sent to the Intensive Care Unit (ICU) and may have a patient assignment with a higher acuity than what is typically on the low-level unit. RHCM RNs will be trained to care for patients who have arterial lines so that they can become familiar with a common practice in high-acuity monitoring. RHCM RNs will be screened using a survey before and after receiving education to assess the effectiveness of the education. This education will allow the RHCM RNs to feel more prepared and confident in providing care to patients requiring arterial line monitoring.

PICO

P- RHCM RNs

I- Arterial line education

C- No arterial line education

O- RHCM RN confidence and competence regarding arterial lines

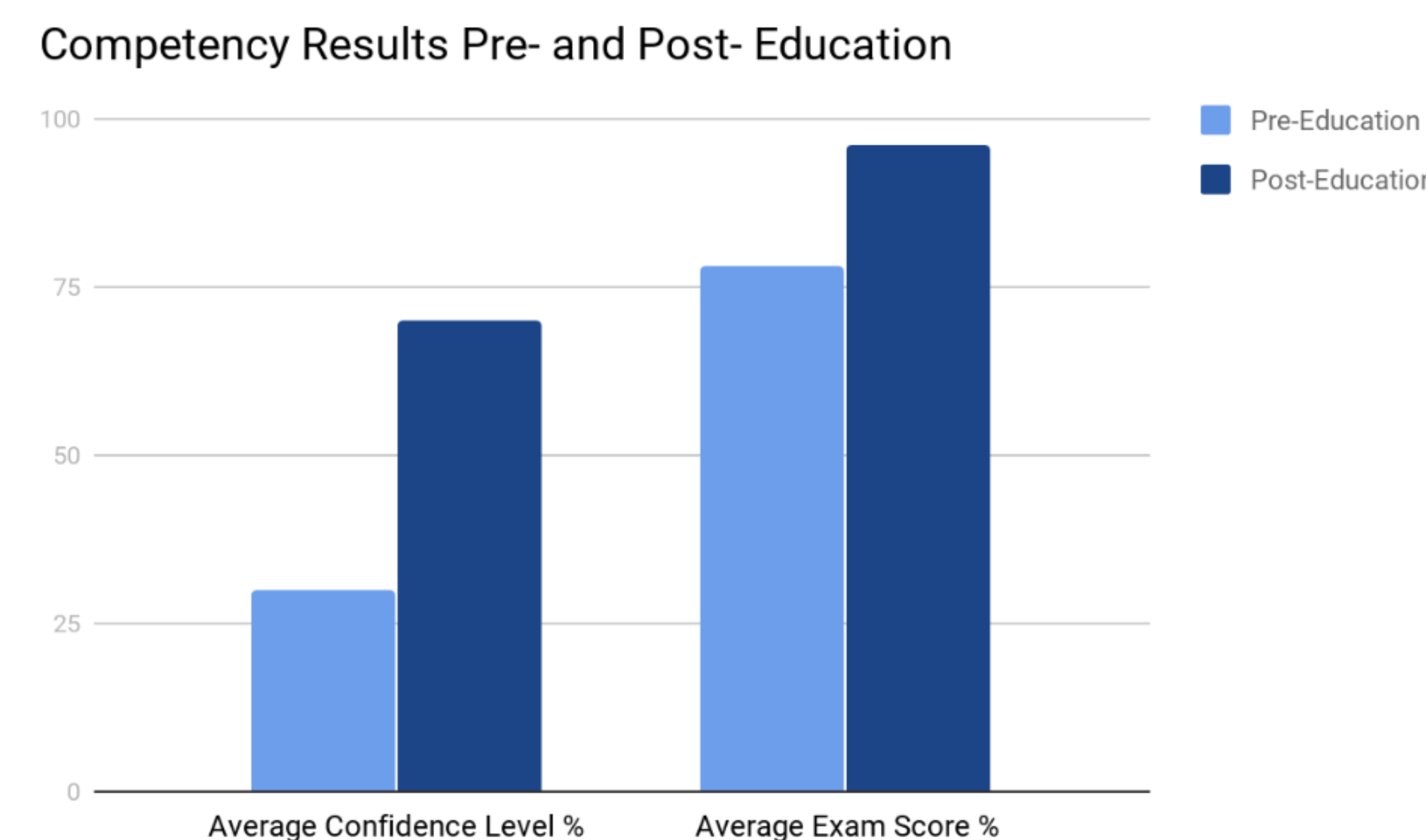
EVIDENCE

- Arterial lines are regularly inserted in patients in the critical care setting for hemodynamic monitoring and to regularly obtain blood gas values and other measurements from plasma (Dahan, A., Engberts, D., & Niesters, M., 2016).
- There were no radial lines removed due to “site issue” (which would include infection). Femoral arterial lines had a lower failure rate, but radial arterial lines are preferred due to decreased risk for site issues (Greer et al., 2018).
- Common strategies for critical care education include identifying the learner’s needs, teaching directed to meet those specific needs and providing performance feedback (Joyce et al., 2017).

OUTCOMES

Pre-education surveys distributed to RHCM RNs

- This survey measured competency and confidence levels in RHCM RNs by questioning arterial line knowledge prior to receiving education
- 10 pre-surveys completed
- Average score for the 8 question pre-survey was 78%.



Post-education surveys distributed to RHCM RNs

- This survey was distributed to RNs who completed the pre-survey and reviewed educational PowerPoint.
- 10 post-education surveys completed
- Post-education survey included pre-survey questions and showed an improvement in scores.
- Average score for the 9 question post-education survey was 96%.
- 7/10 RNs answered “Yes” when asked, “Do you feel that the education provided to you has improved your confidence in working with arterial lines?”

IMPLEMENTATION

- Arterial line education was provided to RHCM RNs via email.
- Education included a PowerPoint and video with arterial line information and trouble shooting techniques
- Pre-and post- education surveys provided to RHCM RNs
- Surveys measured for increased confidence and competence after reviewing educational materials

NEXT STEPS

- Continue additional arterial line education as needed for RHCM RNs who are providing care to high acuity patients
- Screen for competency and confidence with additional surveys, monitor for areas requiring improvement
- Explore additional education opportunities that would be helpful in caring for high acuity patients

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