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Closing the Experience Complexity Gap Using Peripheral IV Education

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Introduction
At Parkview Health System, a gap in peripheral IV (PIV) insertion education was identified.

- PIV insertion is not a curriculum priority in nursing school.
- In practice, IV insertion needs to be completed in a timely manner to avoid care delays.
- An aversion to starting PIVs, by new and seasoned nurses, create unique barriers to PIV insertion.
- Experienced nurses may not be well versed in placing PIVs due to the availability of a hospital IV team.

To close the experience complexity gap and incorporate all learning styles, the Vascular Access Services (VAS) team at Parkview Health created a new concept PIV class. The class offers opportunities to visualize the material, listen to certified expert presenters, practice with the equipment hands on, and place an IV on a hospital patient with expert help and supervision.

Goals

Initial Goals:
- Increase confidence and empower bedside staff to evaluate current IV access for appropriate location and function
- Encourage staff to assess patients’ veins
- Encourage staff to attempt to obtain IV access when needed

Secondary Goals:
- Increase the trust and connection between clinical staff and the VAS team
- See a decrease in requests for simple IV starts

Methods

Class Setup:
- Elective course with continuing education hours offered
- Taught by content experts (Vascular Access Services Team Members)
- Hybrid Course Design
  - Two hours of didactic education
  - Two hours of hands-on education at the bedside

Class Content:

Didactic Education Sections:
- Basic safety
- Environment Optimization
- Tourniquet Application
- Vein Identification
- Hands on skill practice

- Vein Optimization/Stabilization
- Institution Specific Policies regarding PIV Placement
- Step-by-step instructions of insertion and dressing using institution specific PIV
- IV Complications and Treatments
- 1:1 guidance/instruction during insertion on life-like mannequins

Bedside Education
- Supervised PIV insertion
- Goal: All class participants attempt a PIV

Data Collection:

Pre-class assessments
- Six question pre-test and self-assessment

Post-class assessments
- Six question post-test (same day)
- 2-3 month post-class self-assessment

Results

Data pool: 114 participants
74/114 post-class assessments returned

Test Scores
- 98.25% of participants improved their test scores
- Average Scores: Pre-test 3.8/6.0 Post-test 5.8/6.0

Self-Assessment Data
- PIV success rate of greater than 60% more than doubled 2-3 months post class

I am (more) confident in my PIV Ability

- 82.4% report feeling more confident in their PIV ability after attending the class

Discussion
- Hybrid PIV education increased nurses’ confidence in their PIV ability
- Class attendees show an increase in basic PIV knowledge.
- Requests for basic PIV starts have decreased since starting the PIV classes, despite an increase in patient volume.
- Overall, attendees are satisfied with a hybrid education format
- PIV Class enrollment reflects continued interest in PIV education
- PIV education can be modified and adapted for specific nurse and patient populations

Conclusion
Focused education taught by expert instructors in vascular access skills can improve peripheral IV insertion knowledge and confidence.

Timely PIV placement by skilled nurses can prevent delay of treatment, decrease hospital length of stay, and increase patient satisfaction.

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