

A Standardized Orientation Course on Central Line Placement Leads to Persistent Knowledge Improvement.

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A Standardized Orientation Course
on Central Line Placement
Leads to Persistent Knowledge
Improvement

Andrew C. Miller, D.O.

Research Day

October 2007

Co-Investigators

- Bryan Kane, MD
- Valerie Rupp, RN, BSN
- Sharon Kimmel, MHA, PhD, ASCE
- Sandra Yaich, BS Ed

Study Aims

- Improve and standardize the instruction for CL Placement for LVHNN Residents
- Improve supervision and documentation of CL placement
- Maximize the success of central line placement, while minimizing patient risk

Methods

- Central Line Course
 - Didactic Lectures
 - Hands-on Teaching Stations
 - Stressed:
 - Indications
 - Contraindications
 - Procedural Steps
 - Ultrasound-guidance
 - Patient Safety Issues

- Tested all Participants
 - Patient Safety
 - Procedural Technique
 - Ultrasound
 - Potential Complications
- Pre-test; Post-test; 6 months after course

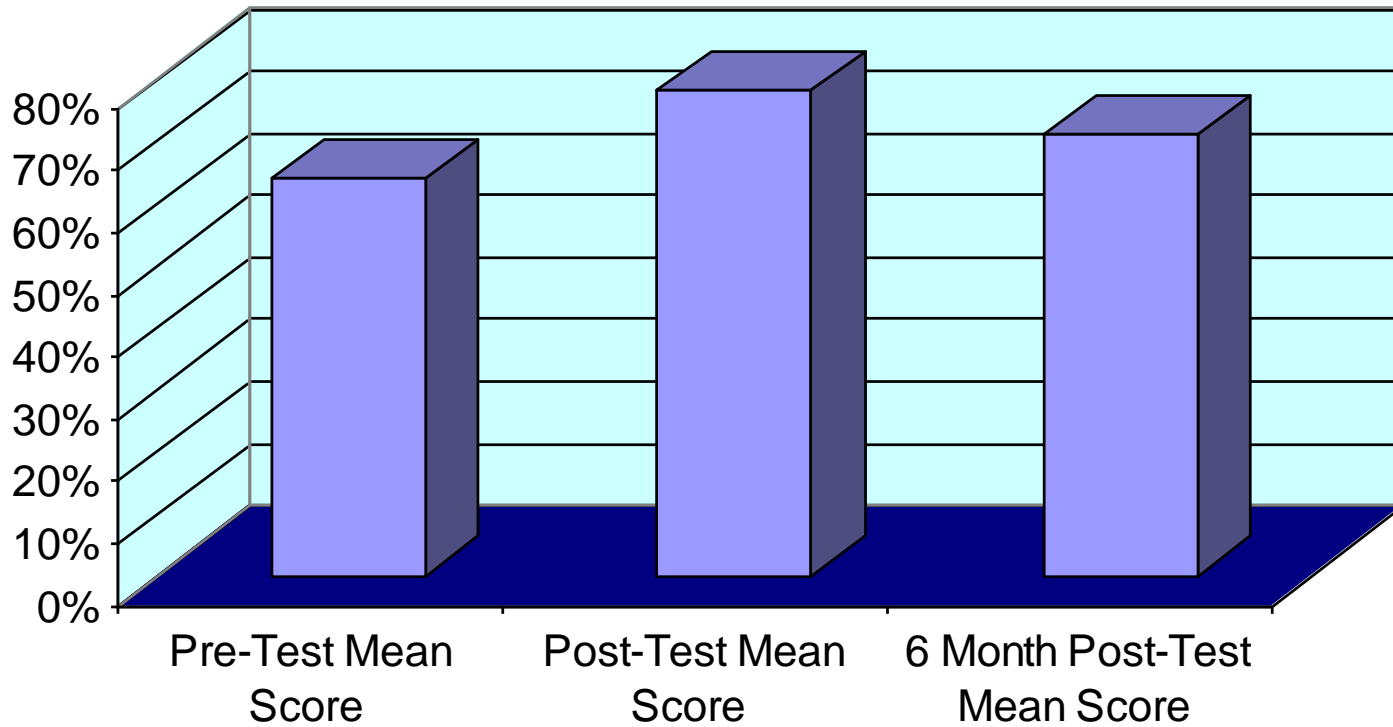
Analysis

- 58 resident physicians
- 29 (50%) resident physicians completed the 6 month post test
- Overall instrument reliability was 0.612 (61%)
- Mean difficulty 0.56 (56%)

- Mean discrimination for testing instrument was 0.312 (0.10 to 4.31)
- Significant difference in test score pre to post was found $p < 0.001$
- 100% of resident physicians felt the course was useful to resident practice and recommended future residents take the course

Results

Central Line Mean Test Scores



Conclusions

- This Course Leads to Persistent Knowledge on Central Venous Access
- Future Directions:
 - Competency of the Procedure
 - Direct Tracking/Registry
 - Evaluation/Feedback Process
 - Increased Patient Safety