Welcome and Introduction
Richard L. Roudebush Veterans Affairs Medical Center
Vascular Access Team

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“Nurse-Driven Initiative Ensures No Preventable Harm”
Institute of Medicine: Recommendation #1

Remove Scope-of-Practice Barriers
Objectives

1. Learner will be able to summarize how the implementation of the VasoNova Vascular Positioning System (VPS) removes barriers to vascular access nurses’ scope of practice.

2. Learner will be able to identify benefits of the VPS for the patient and how these support the “No Preventable Harm” initiative.
“No Preventable Harms”

Brief Overview:

– 2011 Veteran Integrated Service Network (VISN) 11 leadership initiative to keep our unique population safe.

– The focus was on Inpatient Evaluation Center (IPEC) reportable data already being collected.

– 5 principles were adopted to use when identifying issues that had potential to have “preventable harms.”
“No Preventable Harms”

Five Principles

- Hospital acquired condition
- Data currently collected for IPEC
- Evidence to prevent harm needed to be researched based
- Explicit guidance should be available to facilities in achieving their goal
- Quantitatively and qualitatively evaluate initiatives and make necessary changes
Brief History of the PICC

- It is believed that the first PICC inserted by a Nurse occurred in the mid 1970’s at the University of Texas MD Anderson Cancer Center.

- Although the end result of obtaining central access is still the same, the methods, techniques, and technology have continuously improved.
What is the PICC?

- The PICC is a peripherally inserted central venous catheter that is placed into an upper extremity vein with the tip residing in the central circulation.

(Navilyst Medical, 2014)
Indications for a PICC

- Antibiotic therapy
- Chemotherapy
- Total Parenteral Nutrition (TPN)
- Reliable access
- Hemodynamic monitoring
- Long term infusion therapy
The PICC Insertion Procedure

Figure 46-9 Placement of peripherally inserted central catheter (PICC).
Importance of PICC tip location

- Catheter tip placed above lower 1/3 of SVC are 16X more likely to develop thrombus formation
- Direct relationship between thrombus and catheter related sepsis
Vascular Positioning System (VPS)

How it works

**GREEN ARROW** = KEEP ADVANCING. The catheter is moving with the flow of blood towards the heart.

**ORANGE CIRCLE** = STOP. The catheter is moving against the flow of blood. Pull back until GREEN Arrow or Blue Bullseye symbol is obtained. If Green Arrow is obtained, advance catheter. Redirect.

**YELLOW TRIANGLE** = STOP. The catheter is possibly against the vessel wall or retracted inside the catheter. Pull the catheter back. Check the Stylet marking to verify the tip has not retracted back inside the catheter. Redirect.

**BLUE BULLSEYE** = STOP. You have reached the lower 1/3 SVC-CAJ. Position the catheter tip in the upper edge of the Blue Bullseye zone. Wait for at least 10 seconds of steady Blue Bullseye symbol. Press the “PRINT” button. Press the “STOP” button.
Importance of Data

- DATA TOOL DEVELOPMENT
- DATA COLLECTION
- DATA ANALYSIS

http://www.inc.com/magazine/20100601/3-online-database-services.html
Correlation Rate

BullsEye and CXR Correlation Rate

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Malposition Rate

Pre-VPS
Average Rate 32%

Post-VPS
Average Rate 11%
Chest X-Ray Elimination

Teleflex, 2012
Recognized VPS Benefits For the Patient

- Reduced Radiation Exposure
- Increased Patient Satisfaction
- Decrease Line Insertion Time and Cost
- Decrease Delay in Therapy
- 66% Reduction in Malposition Rate
- Reduced Preventable Harm

VPS Implementation
Key to Our Success

- Effective Team Dynamic
- Shared Goal
- Collaboration
- Leadership Support
Conclusion

- Remove practice barriers
- Practice to the fullest extent of our education & training
- Reducing and eliminating "preventable harms"
- Improve quality and safety of patient care outcomes
Questions?


Macmillan. (2014, April 01). PICC lines (peripherally inserted central catheters). Retrieved August 06, 2014, from WE ARE MACMILLAN.CANCER SUPPORT:


http://www.navilystmedical.com/Products/images/XcelaHybridPICC_promo.jpg


http://www.ceufast.com/Peripherally_Inserted_Central_Catheters__nurse_ceu_course.aspx