

## ANNA'S 42<sup>ND</sup> NATIONAL SYMPOSIUM MARCH 27-30, 2011 Hynes Convention Center, Boston, MA

## **Patient Safety and Hemodialysis Catheters**

Carol Tyksienski, DNP, RN, APRN, BC, CNS/NP Hemodialysis Unit, Massachusetts General Hospital

**Problem:** At a major teaching hospital in the Northeast a 65 year old male hemodialysis patient with an unlabeled tunneled catheter for treatment access was admitted to the hospital. The patient arrived from an outside hospital post laryngeal biopsy. The patient had experienced moderate bleeding from the mouth and coughing up blood clots post biopsy. An experienced nurse misidentified the hemodialysis catheter and forward flushed the 10,000 units of heparin. The hemodialysis catheter was inadvertently being used for intravenous access. The patient continued to have bleeding and was transferred to an intensive care unit where he spent two days.

**Approach to the Problem:** To raise awareness and educate the nursing staff about the high risk hemodialysis catheters. Hemodialysis catheters among hospitalized patients may be present on any nursing unit with varying levels of frequency yet pose a patient safety issue.

**Process:** The case study has prompted a change in practice at the teaching hospital. The presence of a hemodialysis catheter is considered a high risk catheter. Upon admission to the hospital all patients are examined for the presence of an external catheter. The catheter type and intended use must be verified by the admitting clinician before the catheter can be used. Verification is completed through outside hospital documentation, chest x-ray or CT scan, Interventional Radiology note, operative note, patient clarification, or referring MD note. Once confirmed a sticker is placed on the catheter dressing, "Hemodialysis Access (Central Line), Do Not Violate, Indwelling Anticoagulant".

**Positive Outcomes:** Audits have shown that there is greater than 90% compliance with labels being placed on high risk catheters. Audits will continue to be monitored quarterly.

Implications for the Patient and Nephrology Nurse: The highest priority is patient safety. The potential safety issues with the presence of a central venous catheter cannot be overlooked. Hemodialysis patients frequently present to hospital emergency wards from outside dialysis facilities or from outside hospitals via emergency medical services and from their own transportation. To avoid similar circumstances as mentioned in this case study it is suggested to the Hemodialysis facilities and the nursing staff that all dialysis catheters be labeled with an identifying sticker on the dressing.

Abstract selected for presentation at ANNA's 42nd National Symposium, Boston, MA, 2011