Not all midlines are created equal...

Abstract:

Background: The University Hospital of Northern British Columbia (UHNBC) utilized an opaque positive displacement intravenous (IV) line connector in 2011 and for several years previously. With concerns generated in the United States surrounding positive displacement and the potential increased risk for infection, as well as the training requirements related to ensuring that a proper clamping sequence was followed, a neutral displacement IV connector was implemented in October 2011.

Methods: Catheter-related blood stream infections and catheter occlusions were monitored at UHNBC for 4 months before (June through September 2011) and 4 months after (November 2011 through February 2012) the implementation of the neutral displacement IV connector by the Parenteral Services nursing team. A staff survey was conducted that reviewed the satisfaction with the newly implemented IV connector.

Results: The results of tracking catheter occlusions with a neutral displacement IV connector showed an average of 4.04 occlusions that required tissue plasminogen activator per 1,000 catheter days, compared with 5.47 occlusions that required tissue plasminogen activator per 1,000 catheter days with the positive displacement IV connector. During the evaluation...
period there was a 26% decrease in catheter occlusions with the implementation of the neutral displacement IV connector. Blood stream infection rates remained at zero for the entire evaluation with both displacement types of IV connectors. Nursing staff members were satisfied with the newly implemented IV connector.

Conclusions: UHNBC will continue to utilize the neutral displacement IV connector hospital-wide, and continues to monitor both catheter occlusions and catheter-related blood stream infections. Following UHNBC, facilities in the rest of Northern Health have implemented the neutral displacement IV connector.