Evidence Based Practice: “The PICC Triad"
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**Problem:** In 2008, the PICC line infection rate at this Army Medical Center in Western Texas was 3%, accounting for 50% of all the hospital’s central line-associated blood stream infections. Infection Control requested that PICC line placement be discontinued because infection risks outweighed the benefits.

**Evidence:** Research revealed the primary PICC line equipment (PICC line, insertion devices, and maximum barrier kit) was not the cause; the increased infection rate was due to the unsatisfactory PICC program (training) and secondary equipment (dressings and end caps).

**Strategy:** This project was designed to decrease the number of PICC line-related infections and de-clotting interventions through the development and implementation of the “PICC Triad” program.

**Practice Change:** The “PICC Triad” was implemented in 2009 in the following phases/timeline: 1) In January, the antimicrobial patch was placed on all PICC lines; 2) In July, Performance Improvement forms were created and circulated; and 3) In September, neutral pressure end caps were introduced, and a dedicated PICC RN staff was designated to perform all PICC-related tasks.

**Evaluation:** The percentage of PICC infections and de-clotting interventions were calculated from 154 inpatient charts. Results were compared pre and post “PICC Triad”. Additionally, these results were compared against 2008 data.

**Results:** During the study’s timeframe, 50 de-clotting interventions were required; 47 of the 50 interventions occurred prior to the implementation of the “PICC Triad” program. Following the “PICC Triad,” the need for PICC line interventions were markedly decreased and PICC infections were reduced to 0%.

**Recommendations:** The “PICC Triad” program should be used to support and improve EBP. Additionally, the “PICC Triad” should be used as a model for the Army Medical Department in Military Treatment Facilities and/or wartime deployment settings.

**Lessons Learned:** Despite multiple in-service presentations on proper PICC line care and management, when floor nursing staff are responsible for PICC lines, infections and interventions remained the same. Implementation of the “PICC Triad” program solved the PICC problem.
Bibliography:

