Abstract:

Background: A practice change of replacing peripheral intravenous (PIV) catheters when clinically indicated was implemented concurrent with a new PIV chlorhexidine (CHG) securement dressing and existing IV care bundle to prevent the risk of infection.

Purpose: The aim of this study was to examine the impact of replacing PIV catheters when clinically indicated on infection rates, nurse satisfaction, and costs in three high-risk, vulnerable hospital populations (Critical Care, Step Down, and Oncology units).

Methods: A retrospective review of 473 medical records, 737 peripheral IV sites, and two nursing surveys were completed after the practice change. Data was gathered related to PIV 1) catheter dwell times, 2) phlebitis rates, 3) catheter-related bloodstream infection (CR-BSI) rates, 4) skin tears related to the new PIV dressing, 5) costs, and 6) a nurse satisfaction survey.

Results: The average PIV dwell time was 7 days with a 3% phlebitis rate. Findings showed no CR-BSIs and 2 (0.27%) skin tears. Cost savings of $17,100.00 in PIV supplies occurred one year after the practice change. Nurse satisfaction with the new dressing was 94.2%, with a 17- month sustainment of satisfaction.

Conclusion: The impact of the practice change and new dressing had positive quality outcomes on infection rate, nurse satisfaction, and costs in three vulnerable hospital populations.

Reference: