Using a PIV maintenance bundle including disinfecting caps and tips can effectively lower the rate of primary bloodstream infections attributable to PIV lines” Duncan et al (2018).

Abstract:

Background: Peripheral intravenous catheters (PIVs) have been considered as having lower risk of infection than central lines. However, research is limited regarding numbers of primary bloodstream infections related to peripheral lines and prevention of peripheral line-associated bloodstream infections (PLABSI).

Methods: Our aim was to create and monitor compliance with a new PIV maintenance bundle using disinfecting caps and tips and to assess whether this bundle would lead to a decrease in PLABSI rates. Weekly audits were conducted to measure compliance with both the new PIV bundle and our existing central line-associated bloodstream infection (CLABSI) bundle. We also audited the disconnection method used for intravenous line tubing (peripheral and central lines) before and during the study intervention period.

Results: A compliance rate of close to 90% with the use of the disinfecting caps and tips was attained. Using a PLABSI bundle successfully decreased primary bloodstream infections due to PIVs (from 0.57 infections per 1000 patient-days preintervention to 0.11 infections per 1000 patient-days; p < 0.001). We confirmed that improving care for PIVs would decrease primary bloodstream infections associated with these devices.

Conclusions: Using a PIV maintenance bundle including disinfecting caps and tips can effectively lower the rate of primary bloodstream infections attributable to PIV lines.

Reference:

Decreasing bloodstream infections related to peripheral intravenous catheters


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