



To describe the natural history of ED-inserted PVC site use; the occurrence and severity of PVC-related phlebitis; and associations with patient, PVC and nursing care factors” Palese et al (2015).

Abstract:

BACKGROUND: To date, few studies have investigated the occurrence of phlebitis related to insertion of a peripheral venous cannula (PVC) in an emergency department (ED).

AIM: To describe the natural history of ED-inserted PVC site use; the occurrence and severity of PVC-related phlebitis; and associations with patient, PVC and nursing care factors.

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METHODS: A prospective study was undertaken of 1262 patients treated as urgent cases in EDs who remained in a medical unit for at least 24h. The first PVC inserted was observed daily until its removal; phlebitis was measured using the Visual Infusion Phlebitis Scale. Data on patient, PVC, nursing care and organizational variables were collected, and a time-to-event analysis was performed.

FINDINGS: The prevalence of PVC-related phlebitis was 31%. The cumulative incidence

(78/391) was almost 20% three days after insertion, and reached >50% (231/391) five days after insertion. Being in a specialized hospital and receiving more nursing care (HR 0.988, 95% CI 0.983-0.993) were protective against PVC-related phlebitis at all time points. Missed nursing care increased the incidence of PVC-related phlebitis by approximately 4% (HR 1.038, 95% CI 1.001-1.077).

CONCLUSIONS: Missed nursing care and expertise of the nurses caring for the patient after PVC insertion affected the incidence of phlebitis; receiving more nursing care and being in a specialized hospital were associated with lower risk of PVC-related phlebitis. These are modifiable risk factors of phlebitis, suggesting areas for intervention at both hospital and unit level.

Reference:

Palese, A., Ambrosi, E., Fabris, F., Guarnier, A., Barelli, P., Zambiasi, P., Allegrini, E., Bazoli, L., Casson, P., Marin, M., Padovan, M., Picogna, M., Taddia, P., Salmaso, D., Chiari, P., Marognolli, O., Canzan, F. and Saiani, L. (2015) Nursing care as a predictor of phlebitis related to insertion of a peripheral venous cannula in emergency departments: findings from a prospective study. *The Journal of Hospital Infection*. November 24th. .

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