



The aim of this study was to assess the proportion of unused ED inserted PIVCs in a before-and-after interventional study” Decker et al (2016).

Abstract:

BACKGROUND: Growing research suggests that a large number of peripheral intravenous catheters (PIVCs) inserted in the Emergency Department (ED) are unused. The aim of this study was to assess the proportion of unused ED inserted PIVCs in a before-and-after interventional study. Additional aims were to ascertain indications for PIVC insertion in the ED and to increase the appropriateness of PIVC insertion.

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METHOD: A prospective interventional study was conducted. Data were collected on 150 cases in the pre- and a further 150 cases in the post-intervention phase. During the intervention phase strategies were implemented to increase appropriate PIVC insertion in the ED. Interventions included introduction of insertion and removal stickers, new venepuncture devices, changing the intravenous (IV) trolley layout, and an educational campaign.

RESULTS: Results from this study demonstrate that the number of PIVCs used (50 vs. 28)

remained unchanged, however the number of PIVC insertions initiated by nursing staff reduced significantly ($p=0.049$). With regard to the indication for PIVC insertion, the implementation of the interventions was associated with significantly fewer PIVCs being inserted for routine blood collection ($p=0.006$) and for PIVCs inserted for a potential need of medication and intravenous fluid administration ($p=0.03$). There was a significant reduction in the number of PIVCs inserted following the intervention (74 vs. 50: $p=0.005$).

CONCLUSION: This study demonstrated a high proportion of unused PIVCs in the ED. A composite intervention strategy was developed and significantly reduced the “just-in-case” PIVCs inserted.

Reference:

Decker, K., Ireland, S., O’Sullivan, L., Boucher, S., Kite, L., Rhodes, D. and Mitra, B. (2016) Peripheral intravenous catheter insertion in the Emergency Department. Australasian Emergency Nursing Journal. January 14th. .

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