

To summarise the evidence about patient-related risk factors for difficult intravenous access in adults, and at identifying nurses' beliefs and their consistency with evidence" Piredda et al (2019).

Abstract:

AIMS AND OBJECTIVES: To summarise the evidence about patient-related risk factors for difficult intravenous access in adults, and at identifying nurses' beliefs and their consistency with evidence.

BACKGROUND: Peripheral intravenous cannulation is a common procedure for nurses, but rates of failure at first attempt of peripheral intravenous cannulation range 10%-40%. Nurses' beliefs about difficult intravenous access factors might influence their clinical practice more than current evidence.

DESIGN: The study included a literature review of the evidence on patient-related risk factors for difficult intravenous access, the development of an instrument to investigate nurses' beliefs about this topic and a cross-sectional multicentre survey on clinical nurses.

METHODS: The quality of the studies included was evaluated through the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies. A synthesis of evidence for each risk factor was produced. A survey instrument was developed including 26 risk factors, which were then rated by nurses as perceived predictors of difficult intravenous access. The STROBE guidelines for study reporting were followed.

RESULTS: Four hundred and fifty clinical nurses working in four hospitals in Italy were surveyed. Nurses' beliefs were in line with evidence in considering body mass index, drug abuse, lymphadenectomy and chemotherapy as difficult intravenous access factors. Beliefs about difficult intravenous access factors were influenced by nurses' work experience and frequency of peripheral intravenous cannulation. Nurses also identified as risk factors for difficult intravenous access oedema, thrombophlebitis, hypovolaemia, skin lesions and irritant therapies, which have been minimally investigated by research.

CONCLUSIONS: An overall congruence between nurses' beliefs and evidence about risk

factors for difficult intravenous access was found. With their expertise, nurses may fill the knowledge gap of clinical evidence and open new paths for clinically meaningful research.

RELEVANCE TO CLINICAL PRACTICE: Nurses' beliefs about difficult intravenous access factors can be influenced by their work experience and clinical setting. Integrating nurses' beliefs with scientific evidence can increase the quality of care.

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Reference:

Piredda, M., Fiorini, J., Facchinetti, G., Biagioli, V., Marchetti, A., Conti, F., Iacorossi, L., Giannarelli, D., Matarese, M. and De Marinis, M.G. (2019) Risk factors for a difficult intravenous access: A multicentre study comparing nurses' beliefs to evidence. *Journal of Clinical Nursing*. June 4th. doi: 10.1111/jocn.14941. .