



Education and training of these practitioners in ultrasound-guided peripheral intravenous cannulation is becoming increasingly common, although no consensus has been reached regarding its curriculum” Loon et al (2019).

Abstract:

Ultrasound increases a first-attempt success rate for vascular access when considered by knowledgeable and experienced practitioners. Education and training of these practitioners in ultrasound-guided peripheral intravenous cannulation is becoming increasingly common, although no consensus has been reached regarding its curriculum. The current systematic literature review aims to explore different training modules and components in use, and its efficacy and efficiency in ultrasound-guided peripheral intravenous cannulation in hospitalized adults by different healthcare providers. Database search was performed from January 2009 to December 2018 for publications describing the training or education of healthcare professionals in ultrasound-guided peripheral intravenous cannulation in adult patients. Data-analyses was performed on 23 studies, concluding that competency on ultrasound-guided peripheral intravenous cannulation can be achieved after following a brief training in a fixed curriculum, consisting of a didactic training session, a simulated hands-on component, and is completed after a supervised live-case training. Lectures should focus on ultrasound physics, including the vascular anatomy. The hands-on training included identification of veins on a life model without cannulating, followed by cannulation of veins

using a nonhuman tissue model. At the end, supervised cannulation of veins on the upper extremity with an ultrasound-guided technique was performed on live patients to show competency.

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Full Text

Reference:

Loon, F.H.V., Scholten, H.J., Erp, I.V., Bouwman, A.R. and Daele, A.T.D.V. (2019) Establishing the required components for training in ultrasound guided peripheral intravenous cannulation: a systematic review of available evidence. *Medical Ultrasonography*. 21(4), p.464-473. doi: 10.11152/mu-2120.

