Developing a training program for emergency providers in US-guided venous cannulation is feasible and safe" Oliveira and Lawrence (2016).

Abstract:

BACKGROUND: Peripheral intravenous (PIV) access is a common procedure in the emergency department (ED). However, conditions such as obesity and hypovolemia can often make access difficult by the traditional landmark technique. The use of ultrasonography has improved the success of PIV placement in this setting.

OBJECTIVES: A novel Ultrasound (US)-Guided PIV Access program was initiated in our ED to train emergency nurses, U.S. Navy corpsmen, and physicians.

METHODS: This was an observational study of emergency providers performing US-guided PIV placement. After a training session, all ED providers began utilizing the US for difficult intravenous access patients. All complications, location of access, and previous experience level were recorded. The choice of a transverse, longitudinal, or a combination approach was also recorded.

RESULTS: We did not observe significant differences in ability with US-guided PIV access when comparing success rates between emergency physicians, nurses, and technicians ($p = 0.13$). In the novice user, a transverse or a novel combination of a transverse and longitudinal method appears to be the most successful.

CONCLUSION: ED physicians, nurses, and corpsmen can successfully place US-guided peripheral catheters for venous access. Developing a training program for emergency providers in US-guided venous cannulation is feasible and safe.

Reference:

Oliveira, L. and Lawrence, M. (2016) Ultrasound-Guided Peripheral Intravenous Access

Program for Emergency Physicians, Nurses, and Corpsmen (Technicians) at a Military Hospital. Military Medicine. 181(3), p.272-6.

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