



We sought to identify perceived barriers to the use of US to guide CVC insertion in a resource-constrained environment” Zaver et al (2018).

Abstract:

BACKGROUND: While ultrasound (US) use for internal jugular central venous catheter (CVC) placement is standard of care in North America, most developing countries have not adopted this practice. Previous surveys of North American physicians have identified lack of training and equipment availability as the most important barriers to the use of US.

OBJECTIVE: We sought to identify perceived barriers to the use of US to guide CVC insertion

in a resource-constrained environment.

**METHODS:** Prior to an US-guided CVC placement training course conducted at the Aga Khan University Hospital in Nairobi, Kenya, physicians were asked to complete a survey to determine previous experience and perceived barriers. Survey responses were analyzed using summary statistics and the Rank-Sum test based on different specialty, gender, and previous US experience.

**RESULTS:** There were 23 physicians who completed the course and the survey. 52% (95% CI: 0.30-0.73) had put in >20 CVCs. 21.7% (95% CI: 0.08-0.44) of participants had previous US training, but none in the use of US for CVC insertion. The respondents expressed agreement with statements describing the ease of the use and improved success rate with US guidance. There was less agreement to statements describing the relative convenience and cost effectiveness of US CVC placement compared to the landmark technique. The main perceived barriers to utilization of US guidance included lack of training and limited availability of US equipment and sterile sheaths.

**CONCLUSION:** Perceived barriers to US-guided CVC placement in our population closely mirrored those found among North American physicians, including lack of training and limited availability of US machines and equipment. These barriers have the potential to be addressed by targeted educational and administrative interventions.

Reference:

Zaver, F., Boniface, K., Wachira, B., Wanjiku, G. and Shokoohi, H. (2018) International Scope of Emergency Ultrasound: Barriers in Applying Ultrasound to Guide Central Line Placement by Providers in Nairobi, Kenya. *Emergency Medicine International*. May 7th. . eCollection 2018.

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