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Introduction:

Vascular access is an integral part of patient care in anesthesiology and intensive care medicine. There is enormous variability in the way of introduction and care about vascular catheters in the light of relatively recently published protocols (e.g., SIC protocol, RACEVA protocol). Our goal was to describe the practices and habits in intensive care units of anesthesiology departments in the Czech Republic in an online questionnaire.

Methods:

A virtual questionnaire with 27 questions was developed. Covered areas of the survey were: the hospital type, types of catheters used, nurse practice, cannulation site selection, details of the cannulation technique, and catheter-related complications.

Results:

The questionnaire was sent to all the anesthesiology departments in the Czech Republic. Results were collected for 99 days. The response rate was 51.6 %, and 48 full-filled questionnaires were obtained. Half of the responses came from the district hospitals. Half of the responding hospitals had cannulation centers. One-quarter of hospitals still do not use PICCs and Midlines. Ultrasound assessment of the central veins before cannulation was performed by 96 % of all respondents and ultrasound-guided venipuncture was performed by 83 % of respondents. However, only 60 % of the respondents passed a certified course of ultrasound-guided cannulation. Ultrasound is used during cannulation in the majority of cases by physicians, and one-third of cases by nurses. The internal jugular vein was the first cannulation site for the central line in 67 %, and the subclavian vein for the second in 63 %. One-third of central lines are still fixed by skin sutures. The average insertion time of the central line was 10.8 days. The incidence of catheter-related bloodstream infections was 7 per year.

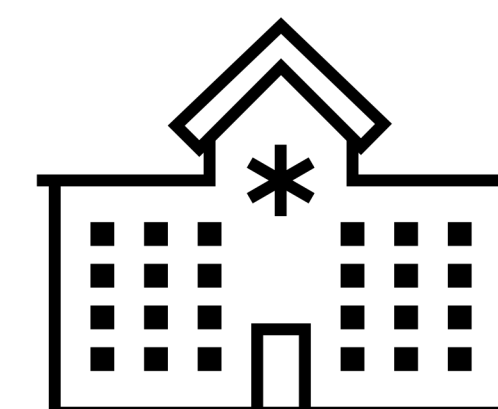
51.6 %
response rate



60 % passed
certified course



½ district
hospitals



½ have vascular
access center



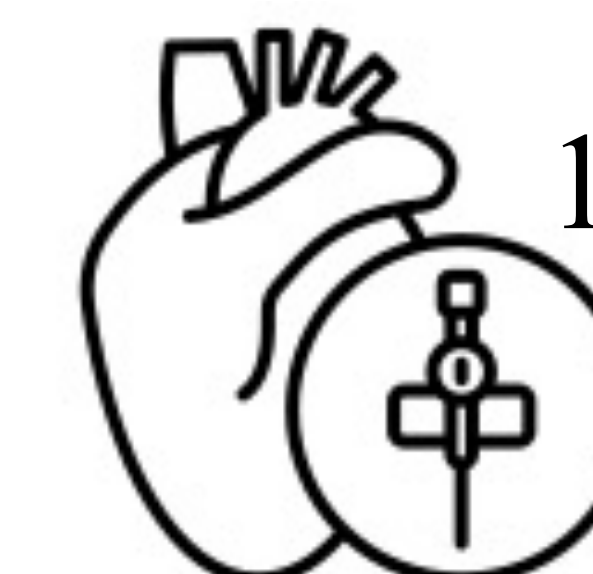
¼ not using
PICC, MidLine



96 % before cannulation
83 % guided puncture
1/3 by nurses



1/3 suture
fixation



10.8 days CICC
in situ
on average



Conclusions:

Our questionnaire revealed large gaps between state-of-the-art cannulation practices and local habits. Our data are meant to facilitate the creation of national guidelines for vascular access in anesthesiology and intensive care medicine.

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