



“In the future, it will be important for operators to master techniques for ultrasound-guided venipuncture, as well as to be able to properly use marking methods and real-time echo based on individual patients.” Suzuki (2014).

#### Reference:

Suzuki, T. (2014) Ultrasound and venipuncture. Masui. 63(9), p.988-1001. .

Japanese article on performing ultrasound-guided vascular access <http://ctt.ec/ccqUd+@ivteam> #ivteam

Click To Tweet

#### Abstract:

This article focuses mainly on precautions in performing ultrasound-guided venipuncture, as well as the selection of instruments for use in venipuncture, along with issues associated with instruments and strategies for managing these issues. Important points to consider when performing ultrasound-guided internal jugular vein catheterizations include: (1) confirming the course of blood flow in the vessels, (2) aligning the axes of the echo probe and the venipuncture needle, (3) ensuring slow venipuncture, and (4) confirming the intravenous placement of the guide wire after securing blood vessels. In terms of instruments, the following are important points to take into account: the use of minimally invasive thin venipuncture needles; the use of new venipuncture needles if vascular access cannot be

secured after attempting venipuncture thrice; verifying whether or not the guide wire is inside the blood vessel using an ultrasound echo to prevent guide wire trouble, and, if found outside the blood vessel removing the venipuncture needle and the guide wire at the same time. (5) In order to prevent vascular damage caused by the dilator during the insertion of central venous catheters, a small incision of the skin and subcutaneous tissue at the catheter insertion site and subsequent dilation with a maximum dilator insertion depth of two times the distance between the skin and the vein is of importance. It is believed that the use of dilators with depth marks may contribute to the reduction of mechanical complications. In the future, it will be important for operators to master techniques for ultrasound-guided venipuncture, as well as to be able to properly use marking methods and real-time echo based on individual patients.

**Thank you to our partners for supporting IVTEAM**



