



The axillary vein is a good site for ultrasound-guided central venous cannulation in terms of infection rate, patient comfort and its anatomical relationship with the clavicle and lungs” Kim et al (2017).

Summary:

The axillary vein is a good site for ultrasound-guided central venous cannulation in terms of infection rate, patient comfort and its anatomical relationship with the clavicle and lungs. We compared real-time ultrasound-guided axillary vein cannulation with conventional infraclavicular landmark-guided subclavian vein cannulation in children.

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A total of 132 paediatric patients were randomly allocated to either ultrasound-guided axillary vein (axillary group) or landmark-guided subclavian vein (landmark group). The outcomes measured were success rate after two attempts, first-attempt success rate, time to cannulation and complication rate. The success rate after two attempts was 83% in the axillary group compared with 63% in the landmark group (odds ratio 2.85, 95%CI 1.25-6.48,  $p = 0.010$ ). The first-attempt success rate was 46% for the axillary group and 40% for the landmark group ( $p = 0.274$ ) and median time to cannulation was 156 s for the axillary group

and 180 s for the landmark group ( $p = 0.286$ ). There were no differences in complication rates between the two groups, although three episodes of subclavian artery puncture occurred in the landmark group ( $p = 0.08$ ). We conclude that axillary vein cannulation using a real-time ultrasound-guided in-plane technique is useful and effective in paediatric patients.

#### Reference:

Kim, E-H., Lee, J-H., Song, I-K., Sim, H-S., Jang, Y-E., Choi, S-N. Kim, J-T. (2017) Real-time ultrasound-guided axillary vein cannulation in children: a randomised controlled trial. *Anaesthesia*. October 9th. .

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