

**Table 11: Practice Notes from the Evidence**

KEY INTERVENTION	DETAILS FROM THE EVIDENCE
Health provider experience	<ul style="list-style-type: none"> <li>■ Health provider training and experience may affect the outcome of ultrasound-guided technique (119). In subgroup analysis, it was noted that those with ultrasound expertise had a higher first attempt success rate than those with no expertise (119).</li> <li>■ Previous experience may improve the results and success of ultrasound-guided technique (120).</li> </ul>
Details of ultrasound technique	<ul style="list-style-type: none"> <li>■ Short axis view, out-of-plane (113, 118-120). <ul style="list-style-type: none"> <li>□ One review noted that there was higher incidence of first attempt success in the subgroup analysis of pooled trials that used short axis out-of-plane ultrasound-guided approach (118).</li> </ul> </li> <li>■ Dynamic Needle Tip Positioning (DNTP) technique (a modified ultrasound technique that requires confirmation of the needle tip position in the vessel before advancing the catheter) (113, 117).</li> <li>■ Long axis view, in plane (115, 118).</li> <li>■ Seldinger technique (119, 120)</li> <li>■ Single or double wall technique (120).</li> <li>■ Vascular transducer used (120).</li> </ul>

**Supporting Resources**

RESOURCE	DESCRIPTION
Bardin-Spender A, Spencer TR. Position paper: ultrasound guided peripheral arterial catheter insertion by qualified vascular access specialist or other applicable healthcare clinicians [Internet]. [place unknown]: Association for Vascular Access; 2019. Available from: <a href="https://cdn.ymaws.com/www.avainfo.org/resource/resmgr/files/position_statements/insertion_of_arterial_cathet.pdf">https://cdn.ymaws.com/www.avainfo.org/resource/resmgr/files/position_statements/insertion_of_arterial_cathet.pdf</a>	<ul style="list-style-type: none"> <li>■ Statement on the use of ultrasound technology for the insertion of arterial catheters.</li> <li>■ Provides considerations for the use of ultrasound technology.</li> </ul>
American Institute of Ultrasound in Medicine (AIUM). Practice parameter for the use of ultrasound to guide vascular access procedures. <i>J Ultrasound Med.</i> 2019;38(3):E4-E18. doi: 10.1002/jum.14954.	<ul style="list-style-type: none"> <li>■ Practical guide for the use of ultrasound in vascular access procedures.</li> </ul>