

ANNEXURE 1

Use of USG and linear Probe in Vascular Procedure

	<p>Intensive Care Med. 2012 Jul;38(7):1105-17. doi: 10.1007/s00134-012-2597-x. Epub 2012 May 22.</p> <p>International evidence-based recommendations on ultrasound-guided vascular access.</p> <p>Lamperti M¹, Bodenham AR, Pittiruti M, Blaivas M, Augoustides JG, Elbarbary M, Pirotte T, Karakitsos D, Ledonne J, Doniger S, Scoppettuolo G, Feller-Kopman D, Schummer W, Biffi R, Desruennes E, Melniker LA, Verghese ST.</p>
	<p>Ann Emerg Med. 2005 Nov;46(5):456-61.</p> <p>Ultrasonography-guided peripheral intravenous access versus traditional approaches in patients with difficult intravenous access.</p> <p>Costantino TG¹, Parikh AK, Satz WA, Fojtik JP</p>
	<p>Ann Emerg Med. 1999 Dec;34(6):711-4.</p> <p>Ultrasound-guided brachial and basilic vein cannulation in emergency department patients with difficult intravenous access.</p> <p>Keyes LE¹, Frazee BW, Snoey ER, Simon BC, Christy D.</p>
	<p>Am J Emerg Med. 2010 Jan;28(1):1-7. doi: 10.1016/j.ajem.2008.09.001.</p> <p>Ultrasonography-guided peripheral intravenous catheter survival in ED patients with difficult access.</p> <p>Dargin JM¹, Rebholz CM, Lowenstein RA, Mitchell PM, Feldman JA</p>
	<p>Indian Journal of Radiology and Imaging, Vol. 19, No. 3, July-September, 2009, pp. 191-198, Interventional Radiology</p> <p>Impact of ultrasonography on central venous catheter insertion in intensive care</p> <p>Gopal B Palepu, Juneja Deven, M Subrahmanyam, S Mohan</p> <p>Department of Anesthesia and Critical Care Medicine, Global Hospital, Lakdi-ka-pul, Hyderabad, India</p>

Considerations in prophylaxis and treatment of VTE in COVID-19 Patients

April 17, 2020

By: The COVID-19 Sub-Committee of the American Venous Forum

Turkish Journal of Vascular Surgery 2020;29(x):i-v. DOI: 10.9739/tjvs.2020.734
www.turkishjournalofvascularsurgery.org

Treatment and prophylaxis strategies for deep vein thrombosis during COVID-19 outbreak

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Technology and use of linear Probe



The straight linear array probe is designed for superficial imaging. The crystals are aligned in a linear fashion within a flat head and produce sound waves in a straight line. The image produced is rectangular in shape. This probe has higher frequencies (**5–13 MHz**), which provides better resolution and less penetration. Therefore, this probe is ideal for imaging superficial structures and in ultrasound-guided procedures.

USES:

1. Vascular access (central and peripheral)
Evaluate for deep venous thrombosis
2. Skin and soft tissue for abscess, foreign body
3. Musculoskeletal—tendons, bones, muscles
4. Evaluation of the pleural line for pneumothorax, interstitial fluid
5. Ocular ultrasound