

Australasian College for Emergency Medicine

The use of focused ultrasound in emergency medicine

Policy P21

V6.0 July 2022 acem.org.au

Document review

Timeframe for review:	Every three years, or earlier if required.
Document authorisation:	Council of Advocacy, Practice and Partnerships
Document implementation:	ED Ultrasound Committee
Document maintenance:	Department of Policy and Strategic Partnerships

Revision history

Version	Date	Revisions
V1	July 1999	Approved by Council
V2		Approved by Council
V3		Approved by Council
V4	Mar 2016	Approved by Council The title of the policy has been changed from 'Use of Focused Ultrasound by Emergency Physicians' as the policy will be used by many individuals working in the ED. The applicability of this policy to both public and private EDs has been outlined. 'Focused ultrasound imaging' is utilised in place of 'point-of-care' ultrasound imaging.
v5	Jun 2019	Approved by Council
v6	July 2022	Approved by Council

Supporting documents

- P733 Recommendations for Health Service Credentialing EM Ultrasonography
- G857 Use of Volunteers as part of Ultrasound Education

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1. Purpose and scope

This policy relates to the use of focused ultrasound in emergency departments.

The policy is applicable to both public and private hospital emergency departments throughout Australasia.

2. Policy

Focused ultrasound imaging has been shown to enhance the clinician's ability to assess and manage patients with a variety of acute illnesses and injuries.

Focused ultrasound examinations performed by trained emergency physicians in order to answer specific clinical questions have been shown to improve patient outcomes^{1,2,3,4,5}.

Clinicians should be credentialed for their scope of ultrasound practice. Health Services need to support the credentialing process with appropriate training, governance, equipment, dedicated IT and infrastructure.

3. Procedure and actions

The Australasian College for Emergency Medicine supports the following principles.

- a. Ultrasound examination, interpretation and clinical correlation should be available in a timely manner 24 hours a day for emergency department patients.
- b. Emergency physicians providing emergency ultrasound services should possess appropriate training and hands-on experience to perform and interpret focused ultrasound imaging. Ideally, they will have gone through a credentialing process to confirm that they can perform these emergency ultrasound examinations competently or gained some form of qualification in emergency ultrasound.
- c. ACEM encourages all emergency physicians to be competent in the 'core' areas of emergency ultrasound, being abdominal aortic aneurysm (AAA), extended focused assessment with sonography for trauma (EFAST), procedural guidance, lung and focused echo in life support (FELS).
- d. ACEM specifically supports the use of ultrasound imaging by emergency physicians in patient populations where there is evidence for benefit for at least but not limited to the following clinical indications:
 - traumatic haemoperitoneum/haemothorax/pneumothorax
 - abdominal aortic aneurysm
 - pericardial and pleural fluid
 - intra-uterine pregnancy identification
 - basic echocardiography in life support
 - hydronephrosis
 - biliary tract disease
 - soft tissue studies
 - deep vein thrombosis
 - lung pathology
 - vascular access and other needle guided procedures
- e. ACEM encourages continued research in the area of ultrasound imaging and any other known or evolving imaging techniques and modalities.
- f. ACEM expects that all emergency medicine training programs will have processes in place that allow trainees to gain instruction and experience in focused ultrasound imaging and for FACEMs to fulfill credentialing requirements.



4. References

- Ben-Baruch Golan Y, Sadeh R, Mizrakli Y, Shafat T, Sagy I, Slutsky T et al. <u>https://www.sciencedirect.</u> <u>com/science/article/abs/pii/S0301562920301393</u> Early Point-of-Care Ultrasound Assessment for Medical Patients Reduces Time to Appropriate Treatment: A Pilot Randomized Controlled Trial. Ultrasound in Medicine & Biology. 2020;46(8):1908-1915.
- 2. Kanji H, McCallum J, Sirounis D, MacRedmond R, Moss R, Boyd J. <u>https://www.sciencedirect.com/science/article/pii/S0883944114001464?via%3Dihub</u> Limited echocardiography–guided therapy in subacute shock is associated with change in management and improved outcomes. Journal of Critical Care. 2014;29(5):700-705.
- 3. Shokoohi H, Boniface K, Zaragoza M, Pourmand A, Earls J. <u>https://pubmed.ncbi.nlm.nih.gov/28851498/</u> Point-of-care ultrasound leads to diagnostic shifts in patients with undifferentiated hypotension. The American Journal of Emergency Medicine. 2017;35(12):1984.e3-1984.e7.
- 4. Turner A, Stevenson M, Cross K. <u>https://journals.lww.com/pec-online/Abstract/2014/04000/Impact_of_Ultrasound_Guided_Femoral_Nerve_Blocks.1.aspx</u> Impact of Ultrasound-Guided Femoral Nerve Blocks in the Pediatric Emergency Department. Pediatric Emergency Care. 2014;30(4):227-229.
- Moore C, Todd W, O'Brien E, Lin H. <u>https://onlinelibrary.wiley.com/doi/abs/10.1197/j.</u> <u>aem.2007.04.010?sid=nlm%3Apubmed</u> Free Fluid in Morison's Pouch on Bedside Ultrasound Predicts Need for Operative Intervention in Suspected Ectopic Pregnancy. Academic Emergency Medicine. 2007;14(8):755-758.





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