



# Use of Focused Ultrasound for Diagnostic Purposes in Emergency Departments

## 1. Guiding Principles

This guideline relates to the use of focused ultrasound for diagnostic purposes in WACHS emergency departments.

The use of ultrasound to guide procedures is covered by WACHS policies and guidelines pertaining to the relevant emergency department procedures.

Focused ultrasound is alternatively named Point-of-Care Ultrasound (PoCUS), bedside ultrasound and clinician performed ultrasound.<sup>4</sup>

It has been shown to enhance the clinician's ability to assess and manage patients with a variety of acute illnesses and injuries.<sup>1</sup>

The Australasian College of Emergency Medicine (ACEM) defines focused ultrasound as limited, goal directed examinations performed to answer specific clinical questions; they are not comprehensive and do not replace sonography offered by diagnostic imaging departments or those performed in dedicated echocardiography units.

The value of focused ultrasound for diagnostic purposes in rural and remote emergency departments which are often resource challenged and distant from specialist services, including advanced imaging services, is well-recognised.

Measures to facilitate access to focused ultrasound examinations 24 hours/day are supported by bodies such as ACEM, which also states that this should be almost immediate in the context of the unstable, peri-arrest or arrested patient.<sup>3</sup>

Doctors providing emergency ultrasound services should possess appropriate training and hands-on experience to perform and interpret focused ultrasound imaging.<sup>1</sup>

## 2. Guideline

WACHS emergency departments are highly disparate with respect to medical staffing profiles with many being staffed by General Practitioners (GPs) and hospital generalists with Fellows or trainees of ACEM mostly limited to the Regional Resource Centres and a few Integrated District Hub Hospitals. Equally disparate is accessibility to ultrasound equipment, the hardware procured by individual departments, as well as the level of training, qualifications and experience of providers.

This guideline is applicable to all medical practitioners working in WACHS emergency departments and is provided to facilitate the optimisation and safe use of focused ultrasound.

It is recommended that all regions appoint a suitably qualified Clinical Lead in Ultrasound (CLUS) who may collaborate with other regional leads to promote the safe use of focused ultrasound in WACHS emergency departments by:

- Identifying suitable training opportunities, mechanisms for achieving proctored examinations, supervision and skills maintenance of its emergency department medical workforce, and
- Setting out competency requirements: it is desirable for these to align with relevant college standards, for example, those created by ACEM<sup>1</sup> and
- Determining suitable equipment, dedicated IT including a process for image storage, and infrastructure with consideration for individual departmental characteristics including staffing profiles, and
- Ensuring that safety processes such as decontamination of diagnostic ultrasound transducers are in accordance with relevant WACHS standards ([Decontamination of Diagnostic Ultrasound Transducers Clinical Practice Standard](#)), and
- Determining quality assurance and audit processes

It is recommended that individual practitioners seeking to provide focused ultrasound imaging as an adjunct to clinical assessment be reviewed by the regional Emergency Medicine Lead and/or CLUS with a determination being dependant on:

- Prior training and qualifications and
- Evidence of skills maintenance and
- Hands-on experience and
- Need for supervision and
- Appropriate scope of practice:
  - Extended Focused Assessment with Sonography for Trauma (EFAST) and/or
  - Abdominal Aorta (AAA) and/or
  - Basic lung and/or
  - Focused Echocardiography in Life Support (FELS) and/or
  - early pregnancy and/or
  - soft tissue and/or
  - deep vein thrombosis and/or
  - biliary tract disease
  - and/or hydronephrosis

A determination regarding a practitioner's use of focused ultrasound may be transferable inter-regionally subject to approval by the relevant regional leads.

It is recommended the Regional Emergency Medicine Leads and/or CLUSs frequently reassess the utility and safety of focused ultrasound as well as any additional applications as appropriate.

### 3. Definitions

<b>Focused ultrasound</b>	limited, goal directed examinations performed to answer specific clinical questions; they are not comprehensive and do not replace sonography offered by diagnostic imaging departments or those performed in dedicated echocardiography units
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## 4. Roles and Responsibilities

It is recommended that:

- Regional Medical Directors ensure appointment of a suitably qualified Clinical Lead in Ultrasound (CLUS) who may collaborate with other regional leads to promote the safe use of focused ultrasound in emergency departments in their region
- Regional Clinical Leads in Ultrasound (CLUS) to collaborate with other regional leads to champion the safe use of focused ultrasound in WACHS emergency departments.
- Medical Practitioners seeking to provide focused ultrasound imaging as an adjunct to clinical assessment should be reviewed by the regional Emergency Medicine Lead and/or CLUS with respect to scope of practice outlined in [section 2](#)
- Regional Emergency Medicine Leads and/or CLUSs frequently reassess the utility and safety of focused ultrasound as well as any additional applications as appropriate.

## 5. Compliance

Guidelines are designed to provide staff with evidence-based recommendations to support appropriate actions in specific settings and circumstances. As such, WACHS guidelines should be followed in the first instance. In the clinical context, where a patient's management should vary from an endorsed WACHS guideline, this variation and the clinical opinion as to reasons for variation must be documented in accordance with the [Documentation Clinical Practice Standard](#).

## 6. Records Management

All WACHS corporate records must be stored in the approved Electronic Documents and Records Management System as per the WACHS [Records Management Policy](#).

All WACHS clinical records must be managed in accordance with [Health Record Management Policy](#).

## 7. Evaluation

Regional Emergency Medicine Leads to assess the utility and safety of focused ultrasound by monitoring clinical incident data related to focused ultrasound in local emergency departments.

## 8. Standards

[National Safety and Quality Health Service Standards](#)

Clinical Governance Standard: 1.27a

Preventing and Controlling Healthcare-Associated Infection Standard: 3.11b

## 9. Legislation

Nil

## 10. References

1. [The use of focused ultrasound in emergency medicine](#), Australasian College of Emergency Medicine, Policy July 2019 [Accessed: 20 October 2021]
2. [Provision of focused ultrasound training and governance](#), Australasian College of Emergency Medicine, Guideline, September 2020 [Accessed: 20 October 2021]
3. [Credentialing for emergency medicine ultrasonography](#), Australasian College of Emergency Medicine, Policy September 2020 [Accessed: 20 October 2021]
4. Standards of Practice, [Definition of Point of Care Ultrasound \(PoCUS\)](#), Australasian Society for Ultrasound Medicine, August 2017 [Accessed: 20 October 2021]
5. Barriers to Point-of-Care Ultrasound Use in Rural Emergency Departments, Micks T et al, CJEM-JCMU 2016(18);6
6. Scope of Point-of-Care Ultrasound in Rural New Zealand, Nixon G et al, Journal of Primary Health Care, Volume 10, Number 3, September 2018
7. [Pocus-Where do I begin? FAQs](#) Emergency Care Institute New South Wales website, 21/06/2021 [Accessed: 20 October 2021]

## 11. Related Forms

Nil

## 12. Related Policy Documents

WACHS [Decontamination of Diagnostic Ultrasound Transducers Clinical Practice Standard](#)

## 13. Related WA Health System Policies

Nil

## 14. Policy Framework

[Clinical Governance, Safety and Quality](#)

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