a healthier world through
sonographer expertise

ASA POSITION STATEMENT | Point of Care Ultrasound and Sonography

Australasian Sonographers Association
Level 2, 93–95 Queen Street
Melbourne 3000 VICTORIA

T +61 3 9552 0000
E policy@sonographers.org

www.sonographers.org

MAY 2026

Summary

- Point-of-Care Ultrasound (PoCUS) refers to ultrasound examinations performed in real time at a patient's point of care, often to support immediate clinical decision-making.
- PoCUS is a rapidly expanding area of ultrasound practice that can enhance clinical assessment and treatment. It is used by a wide range of health professionals including sonographers, medical practitioners, nurses, midwives and allied health practitioners. PoCUS has become a useful extension of the physical exam with many health services seeking to build workforce capacity.
- Medical ultrasound is a widely used imaging modality worldwide yet remains a complex and specialised diagnostic imaging modality.
- For many health practitioners, PoCUS is considered an extended scope of practice. Performing quality PoCUS exams requires appropriate training and credentialling. It is vital that users practise within the limits of their professional competence.
- Healthcare organisations play an important role in ensuring PoCUS improves patient outcomes by establishing robust PoCUS programs with minimum training requirements, governance frameworks, documentation practices and quality assurance mechanisms.
- As the recognised experts in medical diagnostic ultrasound and holding accredited post-graduate qualifications in this scope of practice, sonographers play an important role in supporting high-quality PoCUS practice through education, oversight and collaboration within multidisciplinary care teams. Sonographer educators can support PoCUS users to develop technical imaging skills, accurate interpretation, consistent ultrasound service delivery and improved patient safety.

What is PoCUS?

Point-of-Care Ultrasound refers to ultrasound examinations that are:

- Performed at the patient's point of care, such as at the bedside, during a clinical consultation, or in an emergency response setting.
- Conducted in a wide range of treatment environments including hospitals, medical centres, mobile clinics, community settings, remote locations and events.
- Often time-critical, performed when immediate imaging information is required.
- Used by the treating care team to inform clinical decision-making, guide procedures or monitor patient status.
- Frequently performed by health professionals other than sonographers, including medical practitioners, nurses, nurse practitioners, midwives and allied health practitioners.
- Not necessarily documented or formally reported in the same structured manner as ultrasounds performed in imaging departments.

Background

- PoCUS emerged in the 1980s following the development of smaller and more portable ultrasound systems. Early adoption occurred primarily in emergency and critical care environments, where rapid imaging proved valuable in assessing trauma patients and other acute conditions.
- Ultrasound technology and clinical applications have continued to evolve, and ultrasound is now the most widely used diagnostic imaging modality in the world.[1]

- Demand for PoCUS has grown across Australia and New Zealand as health services seek to expand the diagnostic capabilities of their medical, nursing, midwifery and allied health practitioners.[2]
- PoCUS is now used across a wide range of healthcare settings and specialties[3] for both diagnostics and procedural guidance. Key areas include:
    - **Emergency medicine** – PoCUS is well established in emergency care and provides rapid information about patient status, internal injuries and life-threatening conditions.
    - **Obstetrics** – Focused ultrasound may assist with confirmation of early pregnancy, assessment of fetal presentation, monitoring in late pregnancy and identification of certain complications.
    - **Cardiac medicine** – Bedside cardiac ultrasound can support the rapid assessment of cardiac function and assist in acute or emergency management.
- PoCUS also provides important diagnostic capability for clinicians working in rural, remote or resource-limited settings, where access to imaging services may be limited.

Managing quality and safety risks in PoCUS

The risk of overconfidence

- Ultrasound is a specialised, technically complex and heavily operator-dependent medical imaging modality. Diagnostic performance varies significantly with operator experience, acquisition technique and interpretative skill.
- These subjective elements make ultrasound practice vulnerable to overconfidence bias, which can impact the accuracy and consistency of ultrasound results. Overconfidence has been found to be negatively correlated to a practitioner's experience, meaning users with less ultrasound experience are more likely to overestimate their performance and competence.[4]
- False-positive findings (identifying pathology that is not present) and false-negative findings (failing to detect existing pathology) can have significant consequences for patients including inappropriate treatment, delayed or missed diagnosis, unnecessary investigations and patient stress.

Risk mitigation

- Structural safeguards are important to ensure practitioner competence and mitigate the risk of overconfidence and other cognitive biases. In diagnostic ultrasound these safeguards include training requirements, clearly defined scopes of practice, separation of image acquisition and interpretation, structured reporting, quality assurance processes and feedback loops.
- With growing clinical reliance on PoCUS – often at key decision-making points in patient care – systems and procedures are important to support standardised, safe and effective practice.
- However, variation in how PoCUS is currently implemented across Australia and New Zealand means that training, supervision and structured safeguards that calibrate diagnostic confidence may differ between settings.
- As AI-supported decision-making expands in diagnostic imaging, including AI-augmented PoCUS, transparency and accountability will become increasingly important. While AI can support decision-making, it also introduces bias and may reinforce overconfidence in less experienced users.[5]

- As clinical decision makers, PoCUS practitioners are ultimately responsible for critically assessing the limits of their own training and competence and should seek additional expertise or confirmatory imaging when appropriate. Patients should be advised of the limitations of any PoCUS examination and the possible need for further diagnostic imaging by a sonographer, such as obstetric ultrasounds during pregnancy, which provide comprehensive information for monitoring the health of mother and baby at key milestones.

The role of Sonographers in PoCUS Education

- By sharing their specialised ultrasound expertise, sonographers can make important contributions to PoCUS through education, mentorship, governance and quality assurance activities to support other health professions.
- Education is recognised component of professional sonography practice[6] and research shows that sonographer-led PoCUS education can significantly enhance training programs through improved practitioner confidence, competence and skill retention.[7 8]
- Sonographer expertise is recognised by several medical colleges and training organisations[9] and sonographers currently contribute to PoCUS education in approximately one-fifth of Australasian emergency departments.
- Several international programs have adopted a similar model, with outcomes showing positive impacts from integrating sonographer educators into PoCUS training frameworks.[10]

Establishing standards in PoCUS Education

- PoCUS users require specialised knowledge and skills to perform clinical assessment, triage, diagnosis, patient monitoring and ultrasound-guided procedures. Structured education and supervised clinical training ensure that practitioners develop the appropriate competence in image acquisition, interpretation and clinical integration.
- There are currently no national standards for PoCUS education or credentialling in Australia or New Zealand. Best practice guidelines exist for some clinical applications – particularly in emergency and critical care – however approaches to education, credentialling and governance vary across professions, institutions and training providers[11]. PoCUS education programs also differ in duration and curriculum scope, practical training requirements, assessment methods and credentialling processes.
- Despite this variation, guidelines, protocols and consensus statements for specific areas of practice have identified key elements of effective PoCUS programs that could be applied more broadly to promote best practice in PoCUS education and improve consistency in training and patient care. For example, recent work in emergency medicine identified five pillars of robust, hospital-based PoCUS training programs: governance, infrastructure, administration, education and quality.[12]

Recommendations

To support consistent, safe and effective use of PoCUS across Australia and New Zealand, the ASA recommends:

1. **Integration of sonographer educators into PoCUS programs** – As the recognised experts in ultrasound, appropriately experienced sonographers should play a central and collaborative role in PoCUS education through curriculum development, hands-on training, image review, credentialling and program oversight.
2. **Training and competency –** PoCUS users should be appropriately trained and ensure they maintain competency and practise within their defined scope of practice and individual expertise.
3. **Governance and Quality Assurance** – Healthcare providers should implement governance systems to ensure PoCUS practitioners are appropriately trained, equipment is fit for purpose, protocols are clearly defined, and ultrasound findings are appropriately documented, shared and reviewed.
4. **Referral for additional clinical expertise** – Where a patient's care needs cannot be met by the PoCUS equipment and clinical expertise available at the point of care, patients should be referred for a diagnostic ultrasound performed by an Accredited Medical Sonographer within an appropriate medical imaging service.

References

1. Wang S, Hossack JA, Klibanov AL. From anatomy to functional and molecular biomarker imaging and therapy: ultrasound is safe, ultrafast, portable, and inexpensive. Invest Radiol. 2020;55(9):559–572. Full text: https://pmc.ncbi.nlm.nih.gov/articles/PMC10290890/
2. Nixon G, Blattner K, Muirhead J, Finnie W, Lawrenson R, Kerse N. Scope of point-of-care ultrasound practice in rural New Zealand. J Prim Health Care. 2018;10:224–236. DOI: https://doi.org/10.1071/HC18031
3. Osterwalder J, Polyzogopoulou E, Hoffmann B. Point-of-care ultrasound—history, current and evolving clinical concepts in emergency medicine. Medicina (Kaunas). 2023;59(12):2179. DOI / Full text: https://doi.org/10.3390/medicina59122179
4. Schoenherr JR, Waechter J, Millington SJ. Subjective awareness of ultrasound expertise development: individual experience as a determinant of overconfidence. Adv Health Sci Educ Theory Pract. 2018;23(4):749–765. DOI: https://doi.org/10.1007/s10459-018-9826-1
5. Tee QX, Nambiar M, Stuckey S. Error and cognitive bias in diagnostic radiology. J Med Imaging Radiat Oncol. 2022;66:202–207. DOI: https://doi.org/10.1111/1754-9485.13320
6. Childs J, Thoirs K, Osborne B, Halligan T, Stoodley P, Quinton A, et al. Professional competency framework for sonographers. Figshare. 2021.DOI / Full text: https://doi.org/10.6084/m9.figshare.17158035.v1
7. Coombs PR, Chen J, Curry GJ, Fang J, Lavender I, Lee A, et al. Sonography in a large Australian public ultrasound service: 10 years of change and innovation. Sonography. 2024;11(3):169–176. DOI: https://doi.org/10.1002/sono.12434
8. Knopov A, Hess S, Musits A, Petrone G, Clyne B, Baird J, et al. Sonographer educator in the emergency department to prevent PoCUS skills attrition: a novel education intervention. R I Med J (2013). 2024;107(9):26–29. PubMed: https://pubmed.ncbi.nlm.nih.gov/39186399/
9. Cormack CJ, Childs J, Kent F. Competencies required by sonographers teaching ultrasound interprofessionally: a Delphi consensus study. BMC Med Educ. 2024;24:970. DOI / Full text: https://doi.org/10.1186/s12909-024-05933-x
10. Grimmett S, End B, Quejado K, Kraft C, Minardi J. The value of sonography education faculty in an academic emergency ultrasound program. J Diagn Med Sonogr. 2020;36(5):507–510. DOI: https://doi.org/10.1177/8756479320925400
11. Cormack CJ, Childs J, Kent F. Point-of-care ultrasound educational development in Australasia: a scoping review. Ultrasound Med Biol. 2023;49(6):1375–1384. DOI: https://doi.org/10.1016/j.ultrasmedbio.2023.02.011
12. Cormack CJ, Wald AM, Coombs PR, Kallos L, Blecher GE. Time to establish pillars in point-of-care ultrasound. Australas J Ultrasound Med. 2019;22(1):12–14. doi:10.1002/ajum.12126. Full text: https://pmc.ncbi.nlm.nih.gov/articles/PMC8411801/

Acknowledgements

ASA Sonographer Policy and Advisory Committee

ASA NZ Sonographer Policy and Advisory Group

Document governance

1. **Executive sponsor/Endorsed by:** ASA Board of Directors
2. **Date of endorsement:** April 2026
3. **Area responsible:** Sonographer Policy and Advisory Committee
4. **Consumer review:** No
5. **Version**: 2
6. **Date of Review:** April 2029