

Purpose

Sonography in Australia and New Zealand is a wellestablished profession that continues to evolve and change, based on evidence-based research, technological advancements, and responsiveness to healthcare needs.

The purpose of this Scope of Practice (SOP) document is to define the core scope of practice that applies to an Accredited Medical Sonographer (AMS) in Australia and New Zealand based on the Professional Competency Framework for AMSs.¹ It defines the minimum level of clinical capabilities expected of a professional at "entry level" upon entering the workforce as an AMS (General, Cardiac, Vascular, Breast, Obstetrics and Gynaecology).

This SOP document has been developed by the Australasian Sonographers Association (ASA) to outline the expected capabilities and professional responsibilities of a graduate AMS practising in Australia and New Zealand. It is primarily intended to support AMSs, educators, workplaces and policymakers in understanding the role of sonographers within the healthcare system. While regulatory and accreditation frameworks in New Zealand differ from those in Australia, the ASA acknowledges the shared educational foundations and the close professional relationship between the two countries. Accordingly, selected references to New Zealand qualifications, regulatory bodies, and professional expectations have been included to support alignment and foster trans-Tasman collaboration. This SOP does not apply to non-accredited sonography professionals.

The SOP has been written to enable individual and professional flexibility, allowing the profession to respond to the evolution of sonography, including technological advancements and evolving practices.

This document does not seek to define or replace the regulatory requirements set by the New Zealand Medical Radiation Technologists Board (MRTB), nor is it a substitute for the MRTB's own SOP. Rather, it provides a framework that may be useful and influential as New Zealand continues to develop its professional standards. Any references to New Zealand are included for context only and do not imply any regulatory authority.

The SOP is intended to complement the Professional Competency Framework for Sonographers. These professional competencies define the minimum acceptable level of knowledge, skills, and ethical conduct required for competent and professional practice as an AMS.

This document is designed to support health and medical professionals in understanding the role and responsibilities of an AMS. It also serves as a resource for workplaces to guide workforce planning and ensure AMSs are utilised effectively in delivering high-quality care that meets community health needs.

Definitions

AMS: an Accredited Medical Sonographer.

Direct supervision: a situation where a qualified healthcare professional is physically present and available to guide, observe and intervene as needed while a sonographer performs a task or procedure.

Reporting Clinician: the healthcare professional, based on workplace policies, who is responsible for the final report that provides final interpretation, diagnosis, differential diagnosis and/or recommendations to the referring healthcare provider. This may be an AMS, radiologist or a medical reporting physician.

Request form: a request form as per Medicare requirements or a referral from another healthcare professional authorised to refer for diagnostic imaging.

Sonographer's Report: the report developed by the AMS in accordance with the AMS's workplace requirements. It includes the AMS's analysis of the images, findings, or results from a diagnostic sonographic examination or procedure in accordance with the supervising physician or workplace policies. Depending on the workplace, this could be a worksheet and images, a preliminary report or a final report.

What is an Accredited Medical Sonographer?

An AMS is a healthcare professional accredited by the Australian Sonographer Accreditation Registry (ASAR) or registered with the New Zealand Medical Radiation Technologists Board (NZ MRTB).

AMSs are qualified to perform and document diagnostic ultrasound examinations using specialised ultrasound equipment. They apply clinical reasoning and interpret real-time images, video loops, and Doppler information to contribute to diagnostic decision making, supporting patient care and management across a range of clinical settings.

As the primary operator in delivering diagnostic ultrasound examinations, AMSs ensure that the imaging strategy aligns with the clinical request, professional guidelines and best practice. Depending on local protocols, the AMS may modify or extend the examination based on clinical decision-making informed by the referral information and findings from patient consultation. Imaging techniques may also be adjusted in real-time to accommodate clinical conditions.

The AMS will generate a Sonographer's Report based on diagnostic findings and interpretation, which informs the referring healthcare practitioner and may be subject to subsequent verification by a Reporting Clinician, depending on the workplace's guidelines.

An AMS is part of a medical team whose expertise in diagnostic imaging and monitoring of medical conditions plays a significant role in enhancing patient health outcomes.

Education and Qualifications of an Accredited Medical Sonographer

Current educational standards for AMSs are:

- an AQF Level 8 (or above) or equivalent qualification recognised by the Australian Sonographer Accreditation Registry (ASAR)
- a NZQCF Level 8 qualification (or above) accredited by the New Zealand Medical Radiation Technologists Board (NZ MRTB).

Defining Scope of Practice

AMSs are expected to maintain their Core Scope of Practice. However, each individual AMS will have their own Individual Scope of Practice, reflecting their own workplace settings, level of training and experience. An AMS's Individual Scope of Practice may reflect an Expanded Scope of Practice which can also encompass an Extended or Advanced Scope of Practice.

Core Scope of Practice

The minimum level of clinical competencies expected of an AMS upon entering the workforce, as documented in the Professional Competency Framework for Sonographers¹, legislation, professional standards and code of ethics.

Individual Scope of Practice

The roles, functions, responsibilities, activities and decision-making capacity based on what activities the AMS is authorised to perform, as determined by their education, knowledge and competencies profiles within the boundaries set by professional standards, regulatory requirements, and individual workplace protocols.

Expanded Scope of Practice

Any scope beyond the Core Scope of Practice and which may be either an extended or an advanced scope of practice.

Extended Scope of Practice

The scope that exceeds the core scope but is supported through additional qualifications, credentialling, workplace training or demonstrated specialised clinical experience, regulatory or legislative changes.

Advanced Scope of Practice

A practice within the currently recognised scope of practice for the profession, which requires additional training and credentialling at an advanced level, as well as significant AMS experience. ASAR accredited discipline-specific areas of practice currently include:

- General
- Obstetrics
- Gynaecology
- Vascular[‡]
- Cardiac *

- Breast
- Musculoskeletal*
- Neonatal#
- Paediatric#

- [‡] In Australia, vascular practitioners may be referred to as vascular sonographer, vascular technologists, or vascular scientist.
- * In Australia, cardiac ultrasound is recognised as an established area of practice within two professions - sonography and cardiac physiology. Specific sublevel role descriptors in use include 'echo physiologist,' 'cardiac sonographer' and 'echocardiographer'.
- # At the time of publication, neonatal, paediatric and musculoskeletal sonography are incorporated within the General stream academic work.

AMSs may, under direct supervision, perform advanced or extended roles in relation to interventional, invasive or therapeutic sonographic examinations. These roles must be undertaken in accordance with relevant policies, procedures, protocols, education and applicable legislation within their respective jurisdiction.

AMSs undertaking advanced or extended roles can only perform these duties safely and competently. The level of clinical risk associated with such roles should be commensurate with the AMS's education, training, experience, and supervision arrangements, in addition to considerations of patient safety and clinical governance arrangements. Where AMSs perform extended duties, responsibility and accountability for those duties must be clearly defined in writing. Clear documentation helps ensure transparency and safeguards for both the AMS and the workplace by clarifying legal responsibilities and professional boundaries.

Individual Scope of Practice

An AMS's SOP is defined by:

Professional foundational competencies

An AMS's foundational SOP will be established by the professional competency standards applicable at the time of their educational training and clinical placement. It is the responsibility of the AMS to ensure that their practice is maintained in accordance with the core SOP as a minimum requirement.

2. Professional development

An AMS's knowledge and skills must be developed based on continuing professional development, peer review cases, training, education and mentoring they undertake. Formalised training and credentialling is especially important for extended or advanced practice.

3. Experience

An AMS's experience, gained through the practical application of knowledge and skills over time, will provide insights, problem-solving abilities, critical thinking and clinical proficiency that are not easily possible through formal education alone.

4. Association and Professional standards and guidelines

Current and future evidence-based standards of practice, guidelines and policies will inform and guide an AMS's practices.

5. Jurisdiction

An AMS will be guided by regulations and rules within their jurisdiction of work. While Australia and New Zealand have similar jurisdictional regulations and guidelines, the models of regulation are different. In Australia, sonography is self-regulated while in New Zealand the profession is regulated under statute by the MRTB. Australian AMSs must be aware of federal, state and territory legislation and funding rules, and New Zealand AMSs must be aware of associated acts, including the Pae Ora (Healthy Futures) Act 2022.2.

6. Employment

An AMS's functions and responsibilities are determined by their workplace, whether they are engaged as an employee, contractor or business owner. They are required to adhere to workplace policies, procedures, protocols, and risk management frameworks based on best practices, ensuring alignment with relevant Competency Standards and Codes of Conduct for professional sonography.

7. Emerging evidence-based research

An AMS's practice, with the agreement of their workplace, may evolve to include emerging evidence-based approaches, such as artificial intelligence (AI) practice. These emerging approaches must be supported by evidence-based and peer-reviewed research, education and training.

AMSs must recognise and practice within their SOP and take responsibility for recognising the limitations of their SOP. AMSs must critically reflect on their SOP and undertake appropriate actions to rectify any deficiencies in their knowledge, skills and competencies. It is also essential for workplaces to be involved in determining their staff's SOP. They also need to understand that SOP is influenced by more expansive sociopolitical environments, such as their professional setting and relationships with other health and medical professionals. In the case of sole practitioners, they may need additional governance frameworks to enable them to operate beyond their core SOP.

Each AMS is responsible for determining and justifying their SOP at any time. They are responsible for their acts, omissions or decisions, whether these are within their individual SOP or outside it.

When adapting or extending examinations, AMSs must be supported by appropriate peer review, supervision, and audit processes to ensure patient safety and professional accountability.

It is also a legislative requirement that AMSs maintain the necessary competence in their field of practice and not provide healthcare or services outside their qualifications, training and experience.

Settings

AMSs apply their skills across various healthcare settings, including public and private hospitals, imaging clinics, independent practice, and non-physician clinics, in metropolitan, rural, regional, and remote areas. They may be primarily embedded in relevant departments (radiology, cardiology, obstetrics, vascular, emergency, and intensive care), operating independently or in mobile roles. Service delivery may be in a clinic, hospital, telehealth, community, or home-based setting.

Occupational roles for an AMS can include, but are not limited to³:

- Practitioner
- Manager
- Researcher
- Clinical educator
- Academic
- Supervisor
- Sales/marketing/product/clinical application specialist
- Policy officer.

It should be acknowledged that the practice setting and role will be relevant to the SOP of a practitioner.

Work relationships

AMSs can work within multidisciplinary teams or as sole practitioners.

Patients are typically referred to an imaging practice following a consultation with their medical or health provider.

The AMS typically works alongside a Reporting Clinician, either onsite or offsite. The Reporting Clinician will complete the final medical report for the referring practitioner, in accordance with workplace policies. In cases where urgent ultrasound results need a Reporting Clinician, the AMS should inform the referrer that the report includes preliminary imaging findings and will be reviewed for a full clinical diagnostic report.

Practicing requirements

To perform clinical ultrasound examinations eligible for a Medicare rebate in Australia, AMSs must meet professional standards and hold a current Category 1A accreditation with ASAR4. In New Zealand, AMSs must be registered with a current Annual Practising Certificate with the NZ MRTB.

An AMS, if practising in Australia, must practice within their qualified speciality in accordance with federal and state laws, including the National Code of Conduct for Health Care Workers⁵ as implemented in legislation. In New Zealand, AMSs must comply with the NZ MRTB Code of Conduct⁶ and the Code of Health and Disability Services Consumers' Rights7.

AMSs are guided by written request forms and their workplace's policies, procedures and protocols along with professional standards, including the Sonographer Code of Conduct.8 However, they may extend the

examination or adapt the examination based on clinical findings and documents from current or previous examinations, in accordance with clinical reasoning and workplace protocols.

An AMS is required to demonstrate their commitment to Continuing Professional Development (CPD). This will ensure they remain current with contemporary diagnostic trends and stay up-to-date with sonographic knowledge. ASAR or the NZ MRTB sets CPD requirements.

In accordance with the National Code of Conduct for Healthcare Workers, Australian AMSs practising in all settings must have appropriate professional indemnity insurance, either individually, through their workplace, or both. Practising outside one's SOP may be grounds for denial of coverage.

The Core SOP: Expectations of an entry-level Accredited Medical Sonographer

AMSs are healthcare professionals who apply independent, evidence-based, ethical judgment alongside clinical-based thinking in accordance with laws, relevant professional standards and code of ethics.

An AMS:

- Assesses the request form and, where available, the patient's relevant medical records to determine the most appropriate examination(s).
- Undertakes a patient validation check by correlating at least three points of information.
- Gathers relevant patient history verbally from the patient and/or from information available in the request form, previous imaging, and medical records to identify appropriate assessment protocols.
- Documents the rationale behind examination decisions, including any contraindications, inadequate patient preparation, and the patient's non-compliance through unwillingness or inability to tolerate the examination.
- Explains the procedures and why the procedures are being undertaken, allowing sufficient time to answer questions to enable patients to provide informed consent, considering the appropriate use and decision on the use of chaperones.
- Gathers and documents informed consent or lack of consent to undergo the examination, as per the workplace's guidelines.
- Applies knowledge of anatomy, physiology, embryology, disease and injuries to determine the most appropriate imaging protocol based on the patient's needs.
- Identifies patient's needs both before and after examination/treatment to ensure patient-centred care.

2. Assesses the patient in the region to be examined.

- Enquires about any clinical signs or symptoms in the area (including tenderness, pain or masses) and, where appropriate, clinical investigations with consent for assessment of the region.
- Recognises the limitations of the examination due to patient factors.

3. Conducts sonographic examinations that maintain safety for the patient and themselves.

- Adheres to and respects patient needs, identities and choices, in accordance with relevant legislation, standards, codes, guidelines and protocols.
- Correctly operates and maintains ultrasound equipment in accordance with guidelines and product manuals, ensuring the safety of patients and practitioners.
- Explains clearly to the patient what the ultrasound examination will involve, using inclusive, plain language that supports health literacy and respects cultural and gender diversity.
- Monitors the patient's physical and emotional status, as well as their capacity to receive care and ability to provide continued consent throughout the examination, with sensitivity to individual needs and expressions of discomfort.
- Pauses or ceases examination immediately if requested by the patient, if the patient's condition deteriorates, or if the AMS does not have the capacity or confidence to continue.
- Follows and implements infection prevention in accordance with legislated standards to prevent cross-contamination.
- Adheres to safe ergonomics throughout the examination.
- Undertakes internal examinations only if specifically trained, authorised, and credentialed to do so.
- Recognises and acts in circumstances where care needs require additional clinical member and acts in a timely manner.

4. Recognises, evaluates and makes appropriate adjustments for social, cultural, personal and environmental factors.

- Establishes a rapport with the patient to support safe, respectful and patient-centred care.
- Offers a support person, chaperone or interpreter for the safe performance of the examination, where appropriate.
- Encourages the patient to ask questions or express concerns about the examination procedures.
- Applies a trauma-informed approach, particularly when caring for patients who have experienced prior medical trauma or may be more vulnerable, to help maintain emotional safety and willingness to undertake the examination.

- Demonstrates cultural safety by reflecting on one's own cultural perspective, assumptions and potential biases.
- Communicates and seeks frequent feedback from the patient regarding their comfort, emotional safety and willingness to continue the examination.
- Guides the patient on how to position themselves, what breathing manoeuvres are needed, and any requirements for achieving a high-quality image, while respecting modesty and personal boundaries.
- Provides relevant guidance on what patients can expect following the examination, including a clear explanation of how they can get their results.
- Modifies or extends examination based on clinical presentations, real-time imaging findings and clinical reasoning subject to the patient's informed consent to any modifications or extension.
- Modifies the protocol to optimise or enhance the quality of diagnostic outcomes, where possible.
- Responds to real-time findings and clinical presentations to modify or extend the scope of the examination.
- Adjusts scanning technique using principles of ultrasound physics, equipment and application settings to achieve optimal image quality and diagnostic information.
- Where optimal image quality has not been achieved, the limitations are documented.
- Recognises own limitations of practice and seeks guidance from a peer or an experienced diagnostic clinician when encountering challenging sonographic presentations.

6. Analyses, interprets and correlates sonographic findings.

- Identifies normal and abnormal sonographic characteristics throughout the examination and assesses in real-time what adjustments to the foundational protocol may be necessary based on the findings and clinical question.
- Correlates findings with clinical history, indications and symptoms.
- Recognises and appropriately acts upon critical and urgent findings in line with workplace guidelines and ethical standards.
- 7. Accurately documents and stores images and the Sonographer's Report detailing the complete ultrasound examination.
- Follows professional standards and guidelines and organisational protocols to document precise measurements, descriptions of structures, and any anomalies or findings.

- Provides a description and summary of all the findings and conclusions.
- Documents what was imaged, including any findings or incidents that deviate from normal expectations during the examination.
- Documents what was not scanned and any limitations to the examination, including technical issues, contraindications, inadequate patient preparation, overlying bowel gas, acoustic shadowing, large body habitus, overlying wounds, and overlying bandaging.
- Seeks feedback and advice from peers or line manager regarding imaging and/or pathology when unsure how to describe and document (where available).
- If there is a Reporting Clinician, provides them with a written or electronic preliminary report of the examination and imaging findings.
- Prioritises critical urgent findings for immediate attention.

8. Collaborates with other health professionals where necessary to discuss results.

- Engages in timely and respectful communication with healthcare team members to discuss sonographic findings and their implications.
- Promotes a positive, inclusive and collaborative team culture that values diverse perspectives and shared decision-making.
- with colleagues, adapting communication to different professional roles and levels of clinical understanding, while providing contextually relevant information to support the interpretation of sonographic results within the broader clinical picture.
- Contributes expertise to assist in clinical decisionmaking and planning the next steps of patient care.
- Demonstrates respect for the roles, responsibilities and SOP of other health professionals, fostering mutual trust and accountability.
- Actively participates in multi-disciplinary education sessions, case reviews, and quality improvement initiatives to enhance team learning and patient outcomes.

9. Respect for patients' rights and interests.

- Ensures patient privacy by only sharing information with relevant health professionals and adhering to confidentiality and privacy laws, including when using Al.
- Undertakes mandatory notifications in alignment with professional standards and legal requirements when there are valid concerns about a patient's welfare or safety.

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