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POSITION STATEMENT

Diagnostic imaging

2025

This document outlines the AMA position on diagnostic imaging (also known as medical imaging and radiology).

1. Overarching principles

1.1. Diagnostic imaging services should reflect best clinical practice, be performed by qualified practitioners, and be provided in facilities that meet accreditation standards.

1.2. The funding and regulation of diagnostic services should support patients to receive timely and affordable services that are clinically appropriate, safe, and effective.

1.3. Therefore, government policies, regulations and funding arrangements for diagnostic imaging services should:

(a) place primary importance on safety, quality, access and affordability for patients

(b) facilitate patient care and convenience, including regional and rural areas

(c) be based on evidence of enhanced management of patients and improved patient outcomes

(d) support sustainability of the diagnostic imaging sector, including the sector's ability to provide ongoing training, research and development

(e) recognise the savings to the healthcare system from early diagnosis and intervention and monitoring of chronic and other disease, which are facilitated through diagnostic imaging services

(f) appropriately reimburse the patient for the cost of being provided diagnostic imaging services.

1.4. Governments must continue to engage with medical practitioners involved in diagnostic imaging services to ensure its regulatory framework is fit-for-purpose and keeps pace with evolving clinical practice and the healthcare system generally.

2. Diagnostic imaging

2.1. The AMA membership includes diverse interests in diagnostic imaging. AMA members are providers of diagnostic imaging services, requesters of diagnostic imaging services, and may be owners of diagnostic imaging practices.

2.2. Diagnostic services are provided by a range of medical practitioners. Radiologists are specialist trained doctors who make diagnoses and provide treatment through diagnostic imaging modalities. Radiologists work in specialist practices and hospital settings and receive imaging requests from referring medical practitioners. In certain circumstances, diagnostic imaging services may be provided directly to patients by treating medical practitioners. Examples include, but are not limited to, emergency medicine and surgeons.

2.3. As well as providing imaging services, diagnostic imaging practices in both the public and private sectors play an essential role in the teaching of, and research into, the medical care of patients.

2.4. Private diagnostic imaging services are currently reimbursed under a fee-for-service model. The costs are generally shared between governments, third party insurers and patients.

2.5. Many diagnostic services are bulk billed, but a widening gap between the Medicare benefits and the real cost of providing services is increasingly leaving patients with out-of-pocket costs.[1] Diagnostic imaging may also, at times, be used with clinical justification where it is not eligible for Medicare rebating.

2.6. Diagnostic imaging plays a critical role in a world-class, modern health system. Diagnostic imaging is used:

(a) for diagnosis and screening

(b) to formulate treatment plans and monitor responses to treatments

(i) to perform minimally invasive procedures

(ii) as part of interventional procedures.

2.7. Ongoing investment and innovations in high-quality diagnostic imaging services that reflect best current and emerging validated clinical practices ultimately saves taxpayers from much higher downstream costs in the acute care sector and can greatly improve patients' experiences and outcomes.

2.8. The AMA supports a fee-for-service model. Fee-for-service should cover the provision of individual patient diagnostic imaging services, but also related quality activities that promote ongoing enhancement of digital imaging service provision. For example, participation in patient-centred multidisciplinary team meetings.

[1] AMA 'Why is there a gap?' poster.

2.9. Fee-for-service arrangements provide the best balance of incentives to encourage and facilitate an efficient, competitive market of high-quality diagnostic imaging providers to respond to local demand across Australia.

2.10. The AMA opposes funding arrangements that:

(a) cap expenditure

(b) restrict access

(c) limit the number of eligible providers

(d) limit the number of eligible machines.

3. Quality and safety

3.1. The AMA supports ongoing research to continually improve the knowledge base underpinning best practice diagnostic imaging practices by requesters and providers. Best practice diagnostic imaging is safe, medically-sound, cost-effective and high quality.

3.2. The AMA supports the role of the Royal Australian and New Zealand College of Radiologists (RANZCR) in providing evidence-based advice and guidance to health professionals and patients on the safe, cost-effective and quality use of diagnostic imaging.

3.3. The AMA supports the Department of Health and Aged Care's Quality Use of Diagnostics, Therapeutics and Pathology program, which aims to improve the way medicines and medical tests are prescribed and used.

3.4. The AMA supports tools, such as the *Diagnostic Imaging Pathways* endorsed by RANZCR, which facilitate evidence-based requests for specific indications to ensure the right study with the appropriate sequences is performed.

3.5. The AMA supports a model of quality assurance through industry self-regulation, with appropriate links to a regulation framework.

3.6. Standards should reflect best clinical practices, support qualified practitioners, and provide facilities with the necessary guidance to meet accreditation requirements. Approved standards should not be overly burdensome and should acknowledge that risk varies across different disciplines and health service settings.

3.7. The AMA supports the development of nationally consistent medical imaging standards to provide guidance to medical imaging services to continuously improve and deliver safe and quality services.

3.8. Providers, practices, and sites offering diagnostic imaging services are required to meet certain standards of safety and quality so patient services are eligible for Medicare benefits. It ensures practices perform services consistent with industry agreed standards regardless of where, and by whom, a service is provided.

3.9. Quality assurance standards must be regularly reviewed and continue to evolve to keep pace with changes and innovations so services remain safe, effective, and cost-effective.

3.10. All medical practitioners and other health professionals providing diagnostic imaging services:

(a) must be appropriately trained, qualified and credentialled

(b) have the knowledge and experience to provide quality outcomes for patients

(c) must meet continuing education requirements commensurate with the level of services they provide.

3.11. Only medical practitioners are qualified to correctly interpret images. In a radiology practice, clinical radiologists integrate knowledge of clinical medicines, disease processes, imaging procedures, and radiological expertise with the individual condition of the patient to provide a specialist opinion.

3.12. A contemporary, patient-centred radiology practice requires leadership by a clinical radiologist working with other health practitioners, including radiographers. The radiologist is responsible for all components of medical imaging and assumes medical and legal responsibility during care of their patients.

3.13. Radiologists supervise support staff such as sonographers, radiographers, and nurses to ensure quality and accuracy, and to guide clinical care and best outcomes for patients. This leadership role directly impacts upon and improves patient care.

3.14. Diagnostic imaging services in radiology practices must be supervised by radiologists. In certain circumstances, and for certain services, quality medical imaging services require supervision by an on-site radiologist. The circumstances, level and manner of radiologist supervision should be in accordance with accepted medical practice.

3.15. Radiologists operate in a diverse range of imaging environments, each with their own risks, which should be appropriately managed. Radiologists should have the flexibility to implement efficient and effective processes, consistent with accepted medical practice, to ensure the quality and safety of diagnostic imaging services.

3.16. The AMA supports minimising radiation dose for patients and the broader community. Medical imaging is a significant additional contributor to radiation exposure to individuals. Radiologists are the most appropriate medical practitioners to make judgements about the best diagnostic imaging modality and radiation dose for a specific patient.

3.17. The quality of imaging services should not be compromised because people are living in rural, remote, or regional communities. Regulations and quality standards should support the provision of services consistent with accepted clinical practice.

3.18. There should be appropriate levels of training in diagnostic imaging embedded into the curriculum of doctors in training and speciality medical officer training.

3.19. Funding for radiologist training and supervision must be sufficient to meet current and future workforce needs in the public and private sectors, across metropolitan and regional Australia. Government funding for diagnostic imaging services must recognise the role of public and private practices in teaching, research and innovation.

3.20. Radiologists and other doctors work in collaboration to achieve the best outcome for their patients. This includes communicating to exercise discernment as to whether imaging requests are necessary.

3.21. It is essential that requesting doctors work with patients to provide clinically relevant information for imaging specialists to provide the most clinically appropriate and cost-effective service. Requesters should perform adequate investigation into patients' medical imaging history and reference relevant scans in the referral to support the new image request. Radiologists should communicate with requesters promptly if there is ambiguity regarding the request, to seek further information, and to facilitate evaluation of the request where appropriate.

3.22. AMA supports point-of-care (PoC) diagnostic imaging services provided by appropriately credentialled medical practitioners as part of their practice and which are clinically appropriate and consistent with best practice guidelines. This allows patients to receive timely, convenient, comprehensive, and integrated healthcare. PoC services should be well-defined and limited in scope.

3.23. The AMA supports the development and use of shared electronic health records by medical practitioners to improve the safety and quality of medical care in Australia. A shared electronic medical record that links reliable and relevant medical information across healthcare settings will help provide treating doctors with the information required to make the best clinical decisions.

3.24. Providers should be provided timely and efficient access to clinically relevant information that will assist in providing an interpretation for the patient's medical imaging examination. The AMA supports improvement to the transfer of, and secure access to, quality patient information to inform the generation of meaningful reports.

3.25. The AMA supports the use of My Health Record to make diagnostic imaging reports available to healthcare providers and patients in a way that:

(a) enhances clinical management and care

(b) reduces time wasted by health practitioners

(c) avoids unnecessary repeat examinations.

3.26. The process to upload clinical information to an electronic health record should be seamlessly integrated into existing clinical software. Medical practitioners uploading digital imaging reports and images should only have to do so once.

3.27. It is important that software linking diagnostic imaging services (reports and images) to other medical practices is interoperable so radiologists can communicate results quickly, effectively, and equitably to referring and/or treating doctors. This should include the timely ability to access prior relevant external digital imaging reports and images to enable radiologists to generate accurate reports that reflect the patient's medical background history. The process to upload clinical information to an electronic health record should be seamlessly integrated into existing clinical software.

3.28. Medical practitioners must be consulted in the ongoing development and implementation of electronic health records and diagnostic images must be retained in line with accepted best clinical practice.

3.29. Where possible, diagnostic imaging results should always be accessed by patients in the context of professional care, where appropriate interpretation with medical professional insights and consideration of follow-on care can be provided. Medical information should be communicated by the requesting and/or treating doctor, using their own expert knowledge and understanding of the patient's individual circumstances, to contextualise the results for the patient. Safety concerns can arise when patients are provided access to diagnostic imaging results ahead of consulting with their specialist, stimulating unnecessary patient inquiries, which may overwhelm general practitioners and healthcare staff.

3.30. The diagnostic imaging sector is at the forefront of medical technology innovation and adoption, including for Artificial Intelligence (AI) deployments. AI programs in digital imaging and healthcare in general have demonstrated their ability to enhance diagnostic accuracy and patient outcomes. Current literature supports broad benefits to diagnostic imaging, including enhanced detection, improvements to workflow and image quality, reduction to radiation doses, decreased scan time, and improved utilisation of data to support better patient health outcomes.

3.31. Medical imaging standards and governance procedures should incorporate a dedicated focus on the safe and appropriate integration of AI, accounting for the opportunities and the risks it may present to patient safety. The AMA is committed to annually reviewing AI development and use in all clinical contexts to ensure our policy principles for AI remain applicable and adequate to innovation.

3.32. Decisions regarding medical interpretation or diagnostics cannot be made without having specific human intervention points during the decision-making process. Computer-aided detection is an established but continually evolving technology trained upon clinical decision-making algorithms, which will continue to be used broadly across diagnostic imaging services. AI may assist, but must not replace, clinicians in the work conducted to read and interpret images. Human oversight must always involve qualified healthcare professionals in the interpretation and use of AI outputs.

3.33. The use of AI in healthcare must protect the privacy of patient health information. It must continue to uphold the rights of patients to know what information is held about them, their right to access medical records and their right to have control over its use and disclosure, with limited exceptions. This will uphold the notion of data integrity and security of data.

3.34. AI must be outlined and addressed in the National Safety and Quality Medical Imaging (NSQMI) Standards currently in development. The evolving nature of AI requires that it be dealt with separately and the requirements of the standards should be aligned to emerging regulation of AI. The new standards must also address how AI will be integrated into clinical care, while acknowledging the rapid evolution in the field and the time required to refine AI processes in medical imaging.

3.35. AI must adhere to the following principles:

(a) safeguard patient protection

(b) support enhanced patient outcomes

(c) ensure final clinical decisions are made by qualified clinicians

(d) facilitate informed consent from patients for all treatments and diagnostic procedures

(e) protect both patient and practitioner data

(f) clearly define responsibility and accountability for any diagnostic or treatment errors.

4. Access and affordability

4.1. Government funding arrangements should support clinically appropriate access to the right diagnostic service at the right time. Access to diagnostic imaging services should be based on clinical need.

4.2. Diagnostic services should be eligible for Medicare benefits as long as they:

(a) reflect evidence-based clinical practice

(b) are performed by qualified practitioners with appropriate training, knowledge and expertise

(c) are provided in facilities that meet accreditation standards

(d) are undertaken using high-quality equipment.

4.3. Funding arrangements must also be agile enough to keep up with and subsidise contemporary, evidence-based, and medically accepted clinical practice and new technologies that represent an improvement in care.

4.4. Funding arrangements designed only to reduce government outlays risk compromising access for treating doctors and patients, costing the health system more in the longer term.

4.5. Government rebates for diagnostic imaging services need to be continually aligned with the cost-of-service provisions and set at a level that ensures less well-off patients and those in areas of social disadvantage remain able to access the health system.

4.6. Additional government funding support is necessary to support diagnostic imaging services in rural, remote, or regional areas, either in the form of special grants or additional loadings.

4.7. If appropriate services are not locally available, patients should be supported to travel to receive timely imaging in a way that recognises costs of travel, accommodation, and the impact on family and work. Additional subsidies should also be available for rural/remote patients needing to access private practices when there is no practical or timely access to public providers.

4.8. Telehealth provides additional tools to enhance patient access to care, best utilised in the context of a continuing clinical relationship. On-site diagnostic imaging services is the preferred model of service delivery. Teleradiology is supplementary and should be used to augment and build upon the care provided through a conventional on-site radiological service provision. This mode of care should not be used as a substitute for face-to-face consultation, except in circumstances when patients are unable to attend in-person due to health, cost, or other

complicating circumstances. The AMA considers the primary purpose of teleradiology must always be to improve patient care.

4.9. Government policies and funding must support the ongoing viability and sustainability of the diagnostic imaging sector. Private diagnostic imaging practices rely on MBS rebates for a considerable proportion of their revenue.

4.10. Funding arrangements must also recognise compliance such as accreditation and quality assurance result in administrative and financial costs to imaging providers, and these costs are reasonably partly attributed to any capital component within the MBS scheduled fee.

4.11. Radiologists maintain long-standing relationships with colleagues and with treating doctors to ensure high-quality medical care is provided to patients informed by expert medical opinion. The Medicare Benefits Schedule should recognise professional engagement between radiologists and treating medical practitioners, and provision formal second opinions and comparison reporting in complex cases. Doctor-to-doctor consultations are a key indicator of quality practice. Interaction between radiologists and treating doctors and referring doctors on the interpretation of results of diagnostic tests ensures optimal patient care and facilitates quality diagnostic referrals.

4.12. Government funding and regulatory arrangements should encourage digital imaging referrals of patients to the most clinically appropriate imaging modality. Regulation should not be a barrier to better health outcomes for patients.

4.13. The AMA supports radiologists exercising judgement to substitute a requested or referred service with a more clinically appropriate service for the patient's condition. Radiologists are experts in determining the most appropriate imaging study for a particular clinical presentation, and this expertise should be used to ensure patients are receiving optimal care.

4.14. Radiologists should take reasonable steps to discuss changes to the diagnostic services requested with a patient's referring doctor. If this is not possible or practicable, the radiologist should advise the referring doctor following the provision of alternative services.

4.15. Government funding should provide radiologists with the capacity to proceed with additional diagnostic scans and/or to refer a patient directly to another medical practitioner, in consultation with the patient's initial referring doctor. This is especially important for rural patients needing to travel for diagnoses and treatment.

4.16. This would enhance management of patients moving through a complex diagnostic and treatment pathway by reducing the number of times a patient needs to return to their initial doctor for multiple referrals. It would substantially reduce the expense and disruption for patients, as well as reduce Medicare costs by skipping unnecessary services, while improving patient outcomes through higher compliance.

4.17. The AMA supports the right of patients to participate in the choice of their diagnostic imaging provider in most cases.

4.18. There are situations where a treating medical practitioner requires, for valid clinical or practical reasons, that a specific diagnostic imaging provider performs a test. For example, the treating practitioner may need to specify a diagnostic imaging service to undertake a particular test due to:

(a) the expertise of a specific provider

(b) confidence in the quality of the service

(c) knowledge that a specific test can be done by a specific provider, or that they are the only provider of that service in the area

(d) the provider maintaining the test result history for the patient.

4.19. Ideally, patients should discuss their choice of diagnostic imaging provider with their treating doctor.

4.20. The Medicare Benefits arrangements should always provide for a treating practitioner to make a request to a specific provider if clinically necessary.

4.21. The AMA does not support extending Medicare benefits to diagnostic imaging services requested by non-medical health practitioners unless under the supervision of, or within, a collaborative arrangement with, a medical practitioner. Non-medical health practitioners do not have the medical training to make judgements independently about whether a diagnostic imaging service is required, or which is the most appropriate service. Extending Medicare benefits is likely to simply increase costs with more, unnecessary tests requested.

4.22. Funding arrangements must also recognise and support the significant capital costs incurred by providers. The funding environment should encourage new entrants to the market who could be deterred by high costs of equipment and other set-up arrangements.

4.23. Changes in capital funding arrangements may impact upon the rate at which new machines replace older machines. For example, it may impact whether the costs of more expensive modern machines, which are used less frequently, are cross subsidised by cheaper, older machines. Additionally, investment in better machines providing higher quality images may prove more cost-effective and also impact upon seller behaviour.

4.24. The AMA opposes different MBS fees/rebates applied under Medic*a*re, known as the Capital Sensitivity Rules, based on the equipment age because of the potential perverse incentives it encourages.

4.25. For example, too short a depreciation period might disadvantage a diagnostic imaging provider who invests in a top-of-the-line machine that can produce quality images for a long period with periodic upgrades, and instead encourages a provider to purchase a cheaper quality machine that produces poorer quality images, but can be replaced more often.

4.26. The AMA considers that the MBS scheduled fees for the same diagnostic imaging service should be consistent, irrespective of whether it is provided by a diagnostic imaging practice or provided by a treating doctor.

4.27. The AMA is opposed to policies that seek to licence diagnostic imaging equipment, which results in restricted access to Medicare rebates. Such practice would restrict patient access to appropriate healthcare.[i]

See also:

AMA Position Statement on Medical Workforce and Training (revised 2019)

AMA Position Statement on Shared Electronic Medical Records (revised 2016)

AMA Position Statement on System Interoperability in Healthcare (August 2022)

AMA Position Statement on Better Digital Connectivity to Improve Health Care of Rural Australians (August 2022)

AMA Position Statement on Data Governance and Patient Privacy (February 2023)

AMA Position Statement on Doctors' Role in Stewardship of Healthcare Resources (June 2023)

AMA Position Statement on Artificial Intelligence in Healthcare (August 2023)

AMA Position Statement on Flexibility in Medical Work and Training Practices (August 2023)

Adopted 2018. Revised 2025.

[i] Staged removal of licencing arrangements from 1 July 2027. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.health.gov.au/sites/default/files/2024-05/budget-2024-25-reforming-diagnostic-imaging.pdf