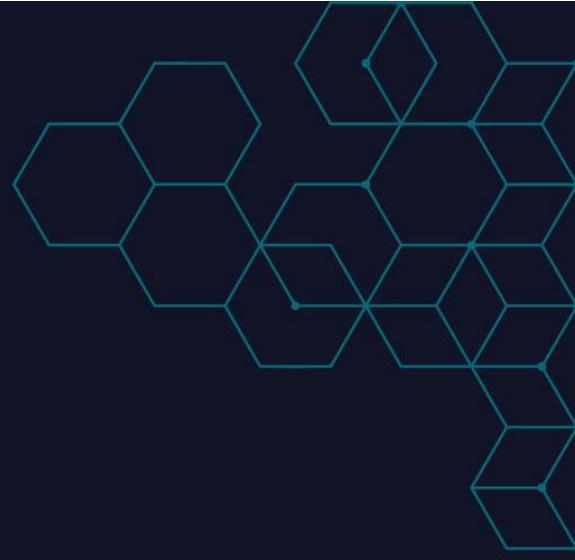




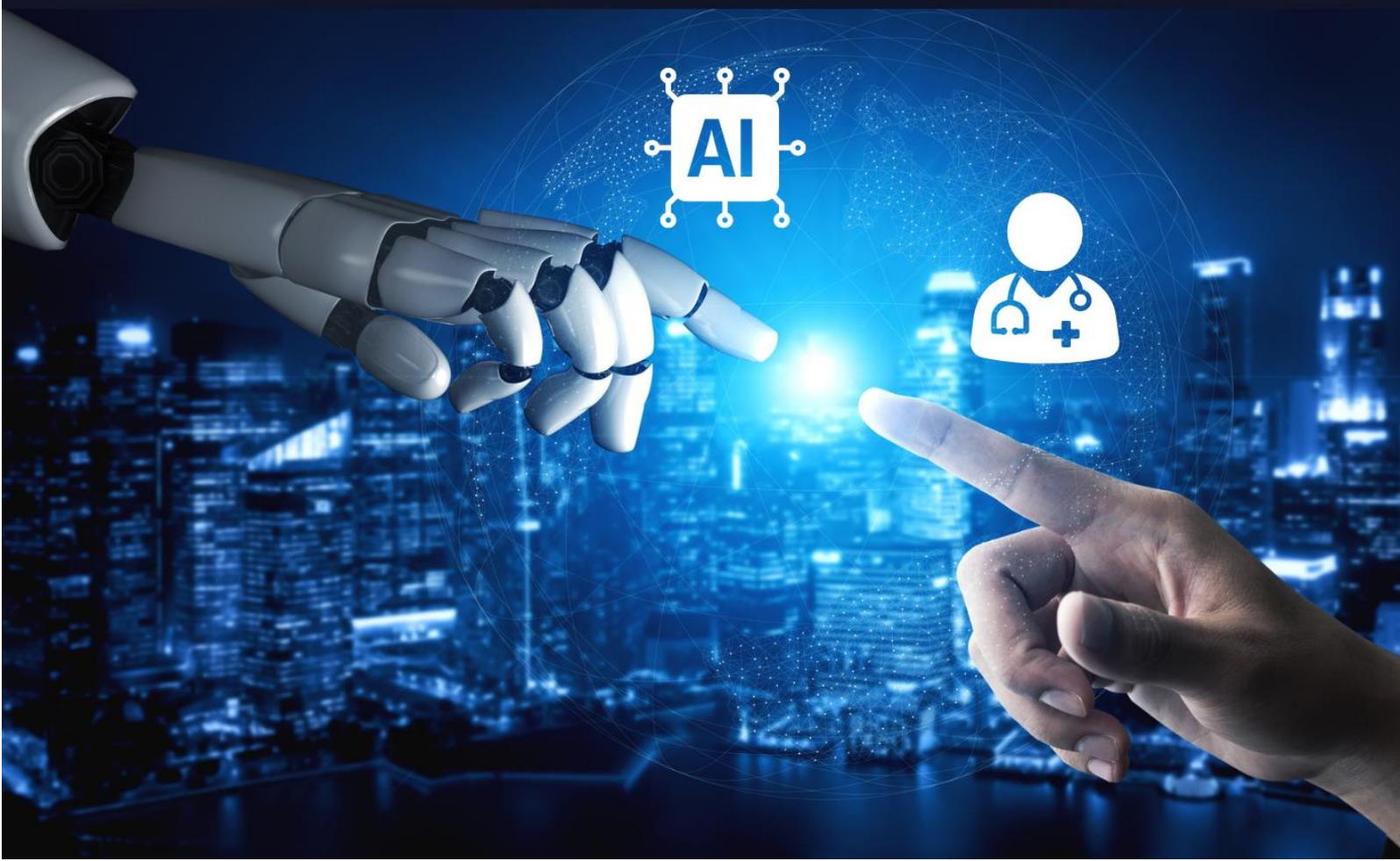
RACP
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Using artificial intelligence in clinical practice

POSITION STATEMENT

March 2026



About the Royal Australasian College of Physicians

The Royal Australasian College of Physicians (RACP) trains, educates and advocates on behalf of over 23,200 physicians and 8,700 trainee physicians, across Australia and Aotearoa New Zealand.

The RACP represents a broad range of medical specialties including general medicine, paediatrics and child health, cardiology, respiratory medicine, neurology, oncology, public health medicine, infectious diseases medicine, occupational and environmental medicine, palliative medicine, sexual health medicine, rehabilitation medicine, geriatric medicine, and addiction medicine.

Beyond the drive for medical excellence, the RACP is committed to developing health and social policies which bring vital improvements to the wellbeing of patients, the medical profession and the community.

The RACP would like to thank those divisions, faculties, chapters, advisory groups, specialty societies, external organisations and individual members who provided their input to this position statement.

Additionally, the RACP would like to especially thank the RACPs Digital Health Advisory Group (particularly Professor Clair Sullivan and Professor Ian Scott) and its Policy and Advocacy team (particularly Christian White) for the critical roles they played in developing this resource.

We acknowledge and pay respect to the Traditional Custodians and Elders – past, present and emerging – of the lands and waters on which RACP members and staff live, learn and work. The RACP acknowledges Māori as tangata whenua and Te Tiriti o Waitangi partners in Aotearoa New Zealand.



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Executive summary

This position statement focuses on the use of artificial intelligence (AI) in clinical practice.

It details the key principles physicians and trainees should consider when implementing, interacting with and monitoring AI in their clinical practice. This resource also highlights likely barriers to using AI in clinical practice and provides practical solutions for physicians, trainees and practice providers that enable them to work with AI in achieving the quintuple aim in healthcare: cost effective and efficient care, greater professional satisfaction, improved patient experience, enhanced population health, and guaranteed health equity.¹

The provision of equitable and sustainable services is increasingly under pressure in both the Australian and Aotearoa New Zealand healthcare systems. **AI consists of computer programs that are designed to perform tasks that usually require human intelligence.** They are being applied at a rapid rate to a variety of tasks across the healthcare sector including administrative tasks, clinical decision-making support and patient education. **As with the introduction of any new approach or technology into healthcare, its benefits need to be weighed up against the risks related to AI use in clinical practice.** Such risks include data or algorithmic bias (where unrepresentative or imbalanced training data or flaws in model design result in erroneous outputs, raising equity concerns and often affecting diverse and marginalised communities); hallucinations (where AI generates false, misleading or fabricated information and presents it as factual); lack of transparency and accountability in AI testing and deployment; and potential medicolegal liabilities from AI-related harm.

The RACP acknowledges that AI will transform healthcare. AI applications to be implemented and accepted widely will likely be those considered lower risk to patient safety and equitable healthcare, used for aiding routine administrative or clerical duties. The broader use of a wider variety of AI is expected to follow for physicians – assistive AI to support image-based interpretation tasks, which is already being used by radiologists; augmentative AI for predicting disease risk and prognosis; and augmenting real-time clinical decision-making regarding diagnosis and treatment. The implementation of these AI applications does and will continue to overlap as some AI applications evolve and are implemented ahead of others. **Importantly, AI should support physician judgement and decision-making, rather than replace it. While AI offers significant potential, it should not be perceived as the answer to the structural and funding deficiencies present in our current healthcare system.**

Over the coming years, **as trainees and physicians increasingly interact with systems that use AI, they will need to develop competencies in understanding, appraising and using AI, and participating in its development, testing and implementation.** In addition, skills like leadership, adaptability and critical thinking will be required in working with multidisciplinary AI teams and advocating for responsible use of AI.

Existing governance and regulatory frameworks at local, state and national levels need to be refined and coordinated to protect each of the patients, trainees and physicians who choose to use AI applications in their clinical care. Until such frameworks are enhanced, physicians are at significant risk of carrying primary responsibility for patient safety through their duty of care and being accountable for patient harm.

Introduction

Trainees and Fellows of the RACP will increasingly interact with AI. For descriptions of AI and its subtypes see **Table 1**. Over the last few decades, AI has transformed how we conceptualise, create and deploy technology. AI is an expanding field that seeks to create intelligent machines that reflect elements of human reasoning regarding visual perception, decision making, and interpreting language. AI takes many forms which continue to evolve, operate within a hierarchy of functions, and has been applied to an increasing array of human enterprises.

In collaboration with the RACP's Policy and Advocacy team, the RACP Digital Health Advisory Group (DHAG) has formulated a position statement that clearly enunciates the key principles, likely barriers and strategies to overcome these barriers, providing guidance when implementing and interacting with and monitoring AI applications. This statement was developed using the methodology outlined in **Appendix A**.

Table 1 Various forms of Artificial Intelligence referenced in this position statement

Types of AI	Description
Artificial Intelligence	An umbrella term for any machine designed to perform tasks that usually require human intelligence.
Machine learning	Models encode (or learn) patterns or associations within large datasets, and generalise these to new, unseen data in making predictions or classifications without explicit human instruction.
Deep learning	Uses deep neural networks, which mimic the interactions between neurons in human brains, to iteratively process different types of data, such as text, images and audio.
Conversational AI	Based on natural language processing, it recognises different components of text or speech, that gives machines (such as chatbots and virtual assistants) the ability to respond to user inputs in a human-like and synchronous way.
Ambient AI	Monitors its environment for input, ready to offer assistance without specific prompting and capable of automatically capturing natural conversations between people and converting this input into structured text ('digital scribes').
Generative AI	Can produce new content (text, images, video, even computer code) in response to user prompts by using large language models (LLMs) that have been trained on vast training datasets to learn the contextual relationships between different input features.

The potential for AI in clinical practice

The RACP and its members are committed to the health and wellbeing of the patients they serve. The ability to provide equitable and quality services is under increasing pressure due to multiple factors: growing demand for healthcare services, driven by an ageing demographic and continuing increases in chronic disease prevalence; increasingly complex decision-making associated with information overload and physician burnout; workforce shortages; limitations in healthcare resources and capacity; rising community expectations of best practice care and greater patient empowerment in disease management. These factors threaten the achievement of the quintuple aim in healthcare: cost-effective and efficient care, greater professional satisfaction, improved patient experience, improved population health and guaranteed health equity.

The advent of vast and unused data stores in electronic medical records (EMRs) and other digitised repositories (e.g. genomic data, clinical images, population databases, etc.) and the emergence of AI applications, especially those based on foundational transformer models,[†] have spurred the growth and adoption of AI applications in ways not previously imagined. **AI offers profound new opportunities to improve clinical processes and care, from the perspective of physicians, trainees and their patients. AI has the potential to make healthcare a learning system that is more agile, adaptive, personalised, safe, effective and efficient. However, this potential for positive change must be balanced with potential risks and harms resulting from poorly designed and implemented AI applications.**

In response to the rapidly growing interest and activity in developing and deploying AI applications in healthcare, various professional colleges, societies, government bodies, insurers and other peak bodies, within Australia, Aotearoa New Zealand and internationally, have issued position statements and roadmaps on how AI should be used safely, effectively and responsibly (**Appendix B**).

It is recognised that AI will be increasingly embedded into clinical practice as a support tool, and that training and professional development programs, practice accreditation standards, insurance arrangements and organisational procurement procedures will need to adapt in ways that ensure AI is used responsibly, ethically and in accordance with relevant legal and policy frameworks.

Benefits and risks of AI

Benefits

The potential benefits of AI applications in the clinical practice of physicians and trainees range from automating administrative and clerical tasks to providing sophisticated clinical decision-making support and risk prediction, to educating patients and using remote monitoring devices to assess disease progress and optimise management. An increasing number of successful use cases, both clinician and patient-facing, can improve efficiency by saving time and releasing it for direct patient care, enhance diagnostic and prognostic accuracy, increase personalised care, empower patient self-management and reduce costs. Not all the applications may interact directly with physicians and trainees, in that the benefits accrued through the adoption of AI by image-based disciplines, such as radiology and pathology, are likely to flow on to physicians and trainees.

[†] Foundational transformer models are a family of neural network models that excel at processing sequential data. Common examples of AI applications that use transformer models are OpenAI's ChatGPT, Google's Gemini and Microsoft's Co-Pilot.

Risks

Despite the potential benefits of AI in healthcare, its integration into routine clinical practice has been slow. This is due to a range of risks and challenges across multiple domains.

Technical and data-related risks

- Amplification and propagation of biases in training datasets.
- Model inaccuracies or hallucinations.
- Lack of transparency and accountability in model development, testing, and output generation.

Clinical and operational risks

- Automation bias, where physicians become overly reliant on AI and lose critical decision-making skills.
- Inadequate understanding of how AI produces data or makes conclusions.
- Overdiagnosis, particularly when screening tools are applied to healthy individuals.^{2,3}
- Inaccurate use of a treatment guiding AI application resulting in incorrect or harmful treatment being prescribed.
- Disruptions to clinical workflows due to poorly integrated AI applications.
- Opportunity costs related to physician and trainee time spent in AI training programs.
- Reduced opportunities to understand and train in the full extent of physician care and what it involves.

Legal and ethical risks

- Uncertainty regarding potential legislative changes in relation to the implementation and use of AI in healthcare.
- Medicolegal liability or professional disciplinary issues, particularly patient harm resulting from AI misuse or inaccurate AI applications.
- Insurance coverage uncertainties related to AI-assisted care.^{4,5}
- Regulatory challenges in approving and monitoring AI applications.
- Erosion of trust in the physician-patient relationship when AI is used without disclosure or informed consent or adequate physician oversight.
- Managing intellectual property challenges.

Privacy and security risks

- Data breaches and infringements on patient privacy, especially when commercial or third-party AI applications are involved.
- Hacking or manipulation of AI models, potentially compromising patient safety and data integrity.
- Privacy concerns associated with informed consent and the use of patient data for AI application training.

Environmental and equity risks

- Concerns associated with the greenhouse gas emissions, energy and water consumption and other resource demands of the development and implementation of AI applications and infrastructure, noting that environmental harms, including contributions to climate change in turn have significant health impacts.⁶

- Models trained and tested on overseas datasets, which may limit relevance and accuracy for the Australian and Aotearoa New Zealand populations, particularly Aboriginal and Torres Strait Islander peoples, Māori and Pasifika peoples, culturally and linguistically diverse communities and other priority populations, or not reflect the geographical uniqueness of both Australia and Aotearoa New Zealand, such as urban, regional, rural and remote characteristics.
- Unfair distribution of AI applications, leading to inequitable healthcare access and outcomes, particularly if AI applications are deployed in ways that favour certain populations or settings.

Using AI in clinical practice

Given their critical role within the Australasian healthcare system, physicians and trainees can act as leaders to shape and encourage the meaningful adoption of AI applications in clinical practice.

It is expected, and already taking place in some settings, that physician and trainee use of AI applications in clinical practice will fall into one of three categories: implementing AI, interacting with AI, and monitoring AI. These categories speak to the development and testing, routine use and continued evaluation of AI applications in a clinical practice setting. Each category has several related principles that the RACP considers essential for guiding physicians and trainees in this area. Existing literature suggests that, in each category, several major factors favour or hinder uptake of any new technology in clinical practice, which need to be contextualised for the particularities of AI use.^{7,8,9,10,11,12,13,14} As barriers are often stated upfront, they have been coupled with counter-enabling strategies. Related strategies are needed to enact the principles, overcome barriers and promote the use of AI applications in clinical practice.

Implementing AI in clinical practice - RACP principles

Implementation speaks to the development, testing and integration of AI applications into workflow platforms or systems that physicians and trainees interact with. The principles that the RACP considers essential for guiding the implementation of AI applications into the clinical practice of physicians and trainees are proposed as follows:

- The **RACP believes the implementation and use of AI must adhere to the ethical principles of beneficence** (duty to act in the best interest of the patient), **nonmaleficence** (duty to do no harm to patients), **autonomy** (duty to protect and foster patients' free, uncoerced choices) **and justice** (equity in the delivery of care and its benefits). Other principles for consideration are described in the resources outlined in **Appendix B**.
- The **RACP believes that, as the end user, physicians and trainees should be involved in all stages of AI development** to guarantee that the design of and engagement with AI applications is user-centred (each of physicians, trainees and patients). Doing so will ensure these applications can reduce burdens in support of patient care and are seamlessly integrated into clinical workflows. **This requires multidisciplinary collaboration** between application developers, data and information technology specialists, physicians, trainees and patients, as part of a clinical governance framework, in defining the problem to be addressed by the application and designing and deploying it in ways that achieve the quintuple aim.
- The **RACP believes that AI implementers are obligated to take reasonable steps to ensure the privacy and confidentiality of patient and clinician data collected and used for AI model development and deployment**. Privacy means no unauthorised access to data. Confidentiality means access to patient information and data are confined to those involved in providing care, or only shared when necessary, required by law or permitted by the patient. By respecting the privacy of patients, they are encouraged to seek medical care and discuss their problems candidly, preventing discrimination based on their medical conditions. If feasible, data should default to

privacy-preserving infrastructure, be contained within protected firewalls and encrypted, and techniques used that minimise the risk of data breaches. **The use of data from priority populations, particularly Aboriginal and Torres Strait Islander, Māori and Pasifika peoples, should align with First Nations-led data sovereignty policies, guided by First Nations voices and knowledges to ensure culturally safe approaches.**¹⁵

- The **RACP believes the implementation and use of an AI application needs to result in better or equivalent care for the same or lower costs respectively**. Resource use and cost-effectiveness of developing and using AI applications in routine practice should be assessed in terms of patient-centred outcomes and value achieved, and weighed against the privacy and data risks posed by AI applications.

Implementation barriers and enabling strategies

Implementation barriers and their related enabling strategies are listed below. These barriers are not listed in order of significance.



Barrier: Poor quality data

Inaccurate, inconsistent, incomplete or biased datasets undermine AI model accuracy and introduce bias into AI applications.

Strategies

- Ensure application developers are explicit about the source of their training data and that data used for training AI applications are representative of populations to which an AI application will apply.
- Assess if developers have undertaken bias, fairness and failure mode analyses of their AI application and what mitigation strategies they have applied in minimising bias (using various debiasing techniques, resampling and reweighing input data, using synthetic data and reprogramming models), particularly when concerning marginalised communities as these populations are often poorly represented within training datasets.
- Raise awareness among physicians and trainees of the importance to AI accuracy of entering high-quality data into EMRs for use in subsequent model development ('garbage in=garbage out'; 'bias in=bias out').



Barrier: Lack of leadership and expertise

The absence of strong leadership and vision for AI adoption among senior leaders will hinder uptake at scale. AI projects will be delayed if there is a shortage of AI training, skills and expertise within healthcare organisations and teams.

Strategies

- Recruit enthusiastic clinical AI champions and leaders with both clinical and digital health experience who foster a culture of innovation and advocate for AI adoption while understanding and complying with legal and governance frameworks.
- Encourage and support champions and leaders to formulate and communicate a common vision of the role of AI in clinical practice to all stakeholders, aligned with organisational priorities.
- Incorporate training on AI applications into curricula and allow for participation in AI application testing through dedicated time and access.
- Embed AI-literate physicians and trainees within interdisciplinary teams (comprising data scientists, data engineers, information technology personnel, and implementation scientists) tasked to lead a program of AI development and implementation.
- Appoint clinical leads for AI projects and create dedicated clinical AI roles to guide safe and effective implementation of AI applications in healthcare settings.



Barrier: Lack of buy-in from front-line clinicians

Clinician resistance to AI due to a lack of understanding, support and training, concerns about model transparency, bias, accuracy or design, poor user experience, alert fatigue, or fear of job displacement or dependence on AI can all limit clinician and patient engagement in AI.

Strategies

- Prioritise AI solutions requested or initiated by front-line clinician champions in response to locally defined problems.
- Publicise well-defined, task-specific AI applications that have shown demonstrable benefits for patient care in clinical studies.
- Require developers of all AI applications to provide a factsheet containing explicit information about the training data (source, populations covered), performance metrics and conditions of deployment (similar to a food nutrition label).
- Openly educate clinicians and patients in basic concepts about how AI works, including both strengths and limitations, in order to build trust and understanding.

Strategies continued

- Demonstrate to clinicians how AI can automate or assist with repetitive tasks, thus freeing up time for more direct patient care, higher-order tasks and extended scope of practice.
- Establish means for clinicians to interact with AI prototype applications (in a 'sandpit' environment), provide feedback and influence model optimisation.
- Reassure clinicians that AI applications can be paused or turned off if clinicians or automated monitoring procedures detect a loss in model performance that raises safety issues, as a result of data shifts, altered equipment settings or changes in clinical practice, or unintentional clinician misuse of the AI application.
- Ensure that physician training and continuing professional development continues to cover tasks which are increasing undertaken by AI, particularly to ensure physician and trainee ability to oversee and understand the work of AI, and to question its methodology and outputs when needed.
- Provide ongoing training and support for clinicians working with AI, particularly more junior clinicians and those less familiar with AI, as their role evolves with AI.



Barrier: Risk of data breach and system outages

Recent high-profile corporate data breaches, system outages and cyberattacks (some associated with ransomware) raise anxiety that sensitive personal data can be accessed and used by unauthorised parties, digital systems on which AI relies may go down, and AI applications may be corrupted and rendered harmful by adversarial cyberattacks.

Strategies

- Ensure back-up systems and fit-for-purpose cybersecurity systems are in place to maintain high-risk, care-critical applications.
- Prioritise AI applications using data that is encrypted and contained within firewall or cloud-protected, health service-controlled on-shore servers over commercial or third-party software requiring data transmission to external offshore servers not subject to local privacy regulation.
- Ensure AI applications that are not already embedded within protected EMR platforms are only accessible to authorised parties/clinicians by using multi-factor authentication.



Barrier: Environmental concerns associated with AI development and implementation

AI use and its infrastructure is associated with greenhouse gas emissions, energy and water consumption. These environmental costs form part of environmental determinants of health, and this carries health costs.

Strategies

- Ensure the environmental costs of AI are assessed during procurement, including requirements for environmental evaluation or recognised 'green' certification.
- Incorporate AI development, implementation and use into organisational environmental sustainability policies.
- Include emissions and resource consumption from AI systems within organisational carbon-footprint measurement.
- Prioritise environmentally efficient AI solutions by favouring small, optimised or otherwise low-resource models where appropriate.
- Promote low-impact user practices by combining inference requests, limiting unnecessary queries and adopting environmentally conscious use of AI tools.

IMPLEMENTATION OF AI IN CLINICAL PRACTICE KEY TAKEAWAYS

Implementation speaks to the development, testing and integration of AI applications into workflow platforms or systems that physicians interact with.

Implementation principles:

- Medical ethics
- User centric design and clinical governance
- Privacy and confidentiality
- Value-based implementation.

Implementation barriers	Enabling strategies
Poor quality data	<ul style="list-style-type: none"> • Ensure training data is representative and sources are disclosed. • Require bias and fairness analysis with mitigation strategies. • Educate clinicians on the importance of high-quality EMR data.
Lack of leadership and expertise	<ul style="list-style-type: none"> • Recruit clinical and managerial AI champions. • Align AI vision with organisational goals and communicate it widely. • Allocate time and resources for AI training. • Embed AI-literate clinicians in interdisciplinary teams. • Appoint clinical leads and create dedicated AI roles.
Lack of buy-in from front-line clinicians	<ul style="list-style-type: none"> • Focus on clinician-led, locally relevant AI solutions. • Promote proven, task-specific AI applications. • Require transparent AI factsheets. • Educate clinicians and patients on AI basics. • Show how AI supports rather than replaces clinicians. • Enable clinician feedback via prototype testing. • Allow AI applications to be paused if safety concerns arise. • Train clinicians to understand AI tasks and safety so they can oversee and question AI outputs. • Provide ongoing AI training, especially for junior staff.
Risk of data breach and system outages	<ul style="list-style-type: none"> • Maintain robust backup and cybersecurity systems. • Prefer encrypted, on-shore, health-controlled data storage. • Restrict access to AI applications via multi-factor authentication.
Environmental concerns	<ul style="list-style-type: none"> • Assess environmental impacts of AI during procurement. • Embed AI development and use into organisational sustainability policies. • Include AI-related emissions and resource use in carbon-footprint reporting. • Favour low-resource, energy-efficient AI models where appropriate. • Promote low-impact AI use.

Figure 1 Implementation of AI in clinical practice

Interacting with AI in clinical practice - RACP principles

Interacting principles refer to the spectrum of explicit exchanges of physicians and trainees with AI applications. These principles are considered by the RACP to outline the safest and most applicable ways to enable physicians and AI applications to interact in a way that enhances physician practice while mitigating risks to patient safety. The interacting principles are proposed as follows:

- Most of all, **AI-enabled technologies should support but not replace the logic and decision-making of physicians. The training, observations and reasoning of physicians must remain the central tenet of patient care.** This requires a commitment by physicians to continually critically appraise AI-generated advice and recommendations and always apply their judgement in decision-making.
- **Physicians and trainees at all stages of training and professional development must be provided with the necessary education and support required to use AI applications safely, effectively and responsibly, and to fully understand their limitations.**^{16,17} AI applications undertaking certain tasks should never result in physician training or continuing professional development not covering those tasks – **physicians and trainees must always be trained in and understand all aspects of patient care.**
- **Physicians and trainees must avoid over-reliance on AI application outputs,** guard against application-induced overdiagnosis and overtreatment, and balance AI assistance with human agency and the responsibility to provide optimal care to patients. Similar to other tools, **a foundational understanding of the safety risks associated with AI use in clinical practice is necessary as usage of any tool can incur a degree of liability and professional responsibility.**
- **In building trust in AI on the part of both patients and physicians, the development, testing and use of AI for patient care must be transparent and accountable.** Transparency means the ability, as much as possible, to know when AI applications are being used to inform care (with physicians, trainees and patients being given the right to opt out of using them, when feasible), to know how personal information is being collected and used, and to know, at least in a general sense, how the algorithm works in generating and justifying its outputs. Accountability means there is oversight of AI application development and performance, existing and future AI-related policies and guidance are enforced, and mechanisms are in place to safeguard patients' data and rapidly identify and address errors or adverse events resulting from the use of AI.
- **AI applications should be explicitly evaluated for usability and their integration with existing clinical workflows** to ensure that not only the application, but the way it interacts with physicians and patients meets expected standards of care.

Interacting barriers and enabling strategies

Interacting barriers and enabling strategies for dealing with them are listed below. These barriers are not listed in order of significance.



Barrier: Public and patient concern about AI

The lay public (who are or may become patients) may have reservations and concerns about AI being used in healthcare which limits its use.¹⁸

Strategies

- Require developers of all AI applications to provide patient information that enables patients to have a clear understanding about the AI application and how it works, particularly if the application accesses patient information.
- Ensure informed patient consent wherever possible, acknowledging when an AI application is collecting patient data as part of physician or trainee practice or collecting data for application training.[‡]
- In the instance in which a patient does not consent to the use of AI as part of clinician practice, ensure that there are alternatives so that the clinician is able to provide a quality-of-care equivalent to or as close as possible to the AI-related approach.
- Articulate clear outcome expectations that AI applications are to serve patients' interests and priorities.
- Cite published clinical studies that evaluate the impacts of using AI applications in clinical practice.
- Correct misinformation, disinformation or misperceptions about AI use and its effects wherever possible.

[‡] It may not be either practicable or desirable to inform patients and seek their consent depending on the type of AI application used in delivering their care and the nature of its use, particularly for those operating in the background and embedded in EMR platforms. Where there is a significant risk that using the AI application could cause harm to patients, and patients have a meaningful opportunity to make different, viable choices in response to a disclosure, then the disclosure and consent obligations are at their apex. In contrast, when there is little risk of harm and no real prospect that patients can take meaningful action in response to the information, it may be reasonable not to insist on disclosure.



Barrier: Risk of legal liability and professional disciplinary implications

Uncertainty around accountability for decisions, algorithms and liability/responsibility for error in using AI applications inhibits adoption of AI.

Strategies

- Ensure indemnity, contractual and insurance arrangements fairly apportion liability risk between model developers, vendors, employers, service providers (like hospitals and clinics), clinicians and users of AI.
- Review contracts and terms of service carefully and ensure contractual clauses do not shift liability from the developer to the user. Seek legal advice on contracts if in doubt.
- Ensure that clinicians understand the safety requirements, limits and risks of the AI application. As with any other tool, using an AI application implies a belief that doing so will benefit the patient. If clinicians elect to use an AI application, they cannot be completely exempt from liability or responsibility associated with its use.
- Ensure that any AI application that directly affects clinical decisions has been reviewed by the Therapeutic Goods Administration (or equivalent).
- Use only AI applications that comply with regulatory frameworks related to privacy and confidentiality - if uncertain whether they do, seek appropriate professional advice.



Barrier: Lack of integration in workflows

AI applications that create additional work or disrupt clinical practice are unlikely to be adopted.

Strategies

- Request change management teams to undertake a thorough mapping of current workflows and anticipated changes in workflows as a result of AI implementation with clinician end-users.
- Select AI applications that generate actionable outputs and directly support clinical practice by reducing administrative workload and requiring little or no manual data entry.



Barrier: Risk of harm

High risk aversion related to the potential for patient harm constrains the use of AI.

Strategies

- Minimise risk by ensuring human-in-the-loop validation (i.e. human reviewers validating accuracy and quality of outputs).
- Ensure that ingestion and processing of data in developing and using the AI application aligns with data sovereignty principles, particularly for data of Aboriginal and Torres Strait Islander, Māori and Pasifika peoples (ensuring First Nations leadership) and others of culturally and linguistically diverse backgrounds.
- Prioritise using models that provide rationales or explanations, where possible, enabling users to scrutinise their decision-making process and identify potential biases.
- Establish feedback and reporting systems that enable physicians, trainees and patients to alert developers, vendors or employers of any safety concerns.
- Ensure active involvement of physicians, trainees and end-users throughout the design, development, testing and deployment process, particularly priority populations who may not be as well represented in AI training data.
- Implement effective governance, legal and regulatory framework compliance, quality management systems, risk assessment procedures and guidelines for responsible and safe use of AI.
- Ensure the proper evaluation of AI applications, both for intended and unintended consequences, to make sure there is a positive balance of potential risks and benefits.
- Request that robust post-deployment monitoring and auditing systems be established to ensure ongoing AI performance and identify safety issues in a timely manner.
- Minimise unintentional misuse of AI applications by physicians and trainees by building in fail-safe design features and ensuring adequate clinician training.

INTERACTING WITH AI IN CLINICAL PRACTICE

KEY TAKEAWAYS

Interacting refers to the spectrum of explicit exchanges between physicians and AI applications. The advice outlines the safest and most applicable ways to enable physicians and AI applications to interact in a way that enhances physician practice and mitigates risks to patient safety.

Interaction principles:

- The central role of the clinician
- Training and education on AI
- Transparency and informed consent
- Usability and integration.

Interaction barriers	Enabling strategies
<p>Public and patient concern about AI</p>	<ul style="list-style-type: none"> • Require developers provide patient-friendly explanations of AI tools and data use. • Obtain informed consent when collecting patient data. • Offer non-AI care options with comparable quality when patients refuse AI. • Emphasise patient-centred outcomes. • Share clinical evidence of AI benefits. • Actively correct misinformation about AI.
<p>Risk of legal liability</p>	<ul style="list-style-type: none"> • Ensure liability is shared fairly between AI application stakeholders. • Review contracts and seek legal advice if needed. • Educate clinicians on AI tool safety risks; liability cannot be fully waived. • Use only AI tools that have been reviewed by the TGA (or equivalent) when they influence clinical decisions. • Use AI tools that meet privacy and confidentiality rules; seek expert advice if unsure.
<p>Lack of integration in workflows</p>	<ul style="list-style-type: none"> • Map workflow changes with change management teams. • Choose AI applications that reduce administrative burden and require minimal manual input.
<p>Risk of harm</p>	<ul style="list-style-type: none"> • Use human-in-the-loop validation to minimise risk. • Respect data sovereignty, especially for Indigenous populations. • Prefer explainable models to support scrutiny and trust. • Enable feedback systems for safety concerns. • Involve diverse end-users throughout development. • Apply strong governance and risk management systems. • Evaluate AI for both intended and unintended effects. • Monitor tools post-deployment for safety and performance. • Design fail-safes and train clinicians to prevent misuse.

Figure 2 Interacting with AI in clinical practice

Monitoring AI in clinical practice - RACP principles

The monitoring of AI applications used by physicians and trainees refers to the continued evaluation of these tools once implemented and being used. This is critical to ensure the continued effectiveness and safety of the physician and trainee practice when using AI applications. The monitoring principles are proposed as follows:

- The **RACP believes that AI implementers must expect, monitor and mitigate degradation in application performance** leading to errors that threaten patient safety and risk exacerbating inequities in healthcare delivery. The chief cause of such problems is data drift, where the distribution of features in the data fed into the application change from what they were in the original training datasets. This may be because patient characteristics have changed, settings in sensing or imaging equipment have altered or clinical practice has evolved. These changes require the model to be recalibrated or retrained in order to regain optimal performance.
- The **RACP believes that any deployed AI application must be subject to a process of continuous revalidation, feedback and optimisation over its life cycle, ensuring clinical safety and effectiveness.** The real-world performance of the application must be closely monitored over time by application developers using standardised measures that can detect any drift in accuracy. Users of the AI application must be able to report bias or errors that they perceive as degrading application performance to developers and regulatory authorities. Application developers working with users must also be able to either remediate suboptimal performance or decide if the tool needs to be retired. **Cross-disciplinary collaboration is also essential in ensuring there is no growth in hidden work for other disciplines associated with AI application use performed by physicians and trainees.**

Monitoring barrier and enabling strategies

A possible monitoring barrier and the related enabling strategies are listed below.



Barrier: Failure to monitor and evaluate AI performance and impact over time

Ongoing physician and trainee support for and organisational investment in AI applications will diminish if their impact on patient care remains uncertain or is perceived as adverse.

Strategies

- Enforce prospective and continuous AI stewardship and implement reliable support structures for model monitoring and troubleshooting.
- Encourage physicians and trainees, in collaboration with AI application developers, to conduct studies that compare care processes and outcomes in a clinical setting in which an AI application has been adopted with a concurrent control (usual care) setting, or a pre-post study within the same clinical setting. These studies should be undertaken to demonstrate potential impact prior to full-scale roll-out.
- Perform cost and benefit evaluations, time and motion studies, and qualitative studies (e.g. user and patient experience and feedback) in assessing impacts post implementation of AI applications.
- Establish systems to track clinician use of AI applications and its impact on patient outcomes, and identify instances in which further optimisation of applications is required, or they should be retired, with re-activation of pre-AI processes.

MONITORING OF AI IN CLINICAL PRACTICE KEY TAKEAWAYS

The monitoring of AI applications refers to the continued evaluation of these tools once implemented and being used by physicians. This is critical to ensure the continued effectiveness and safety of physician practice when using AI applications.

Monitoring principles:

- Ensuring continued safety and clinical effectiveness
- Mitigating biases and errors.

Monitoring barriers	Enabling strategies
<p>Failure to monitor and evaluate AI performance and impact over time</p>	<ul style="list-style-type: none"> • Enforce continuous AI monitoring and support systems. • Conduct comparative studies (e.g., pre-post or control vs AI settings) to assess impact before full roll-out. • Perform economic, workflow, and user experience evaluations. • Track clinician use and patient outcomes to guide optimisation or retirement of tools.

Figure 3 Monitoring of AI in clinical practice

Conclusion and next steps

AI is increasingly being adopted into healthcare systems across Australia and Aotearoa New Zealand at varying rates depending on the setting of integration.

To realise the potential benefit of AI to physician practice, the implementation, interaction with and monitoring of AI applications must be considered and evaluated, especially in light of the potential for extra or hidden work and medico-legal uncertainty associated with using AI applications.

While risks and errors are impossible to completely erase, it is critical that physicians and trainees of all career stages undertake education and training on the proper use and integration of AI applications into clinical practice to mitigate potential risks.

In publishing this position statement, the RACP emphasises the need for dynamism and agility of its members in dealing with and adapting to the incorporation of AI into their clinical practice while acknowledging its responsibility for incorporating standards related to AI into training and professional development programs. Given that the application of AI is rapidly evolving the RACP will endeavour to update this resource when needed to ensure it remains relevant and useful.

For more information on AI use in clinical practice and detail on regulatory and insurance considerations we encourage you to review the resources outlined in **Appendix B**.

Additionally, for those interested in building their AI awareness and expertise, look to engage with verified and/or accredited short courses and training programs. To inform the use of AI applications in clinical practice members should consider the RACP's Evolve AI Webinar series,¹⁹ available checklists^{20,21,22} and simulations of AI application use in 'sandpit' environments to develop familiarity with, and assessment of, an application's compatibility with your workflow.

For questions or comments about this position statement, contact the RACP's Policy and Advocacy team via email: policy@raccp.edu.au

Appendix A: Methodology used in formulating position statement

A literature search was undertaken of various databases to locate empirical studies and reviews of AI, using search terms including ‘artificial intelligence’, ‘machine learning’, ‘healthcare’, and ‘physicians’.

Organisational websites were scanned and references cited in the retrieved literature were searched for additional relevant material. The draft paper, with proposed principles, was circulated to all DHAG members who suggested amendments in an iterative process involving a number of consecutive versions, with the final version endorsed at a DHAG meeting. The draft was then distributed to the RACP Policy & Advocacy team to develop, adapt and enhance, particularly to ensure consideration of emerging issues and best approaches for addressing them. The draft was then distributed to relevant RACP committees and external stakeholders for further consideration and for feedback to be received by DHAG. In response to comments received, the draft paper was subject to further amendment and signed off by DHAG. The position statement was then sent for review and endorsement by the RACP College Policy and Advocacy Council’s Executive Committee.

Appendix B: Organisational responses to AI

Recently released resources for AI use in healthcare

Australia and Aotearoa New Zealand

Professional colleges

- Position statements listing principles and standards for AI have been released by the Australian Medical Association (AMA),²³ the Royal Australian College of General Practitioners (RACGP),²⁴ the Royal Australian and New Zealand College of Radiologists (RANZCR),²⁵ and the Australasian College of Dermatologists (ACD).²⁶

AI bodies and associations

- The Australian Alliance for AI in Healthcare (AAAiH) issued a roadmap²⁷ in March 2024, which listed the top five national priority areas: (i) safety, quality and ethics; (ii) privacy and security; (iii) governance and leadership; (iv) research and development; and (v) workforce.
- The Australasian Institute for Digital Health (AIDH) is fostering discussions, guidelines, and frameworks related to AI implementation in healthcare, emphasising the importance of ethical considerations, patient privacy, data security, and governance frameworks in ensuring safe and effective use of AI applications in the healthcare sector. In June 2025 the AIDH published an information sheet titled *Implementation of AI scribes in healthcare workflows*²⁸ providing guidance for Australian healthcare providers on how to consider AI scribes.

State health departments

- In Queensland, the Health Service Strategy within Queensland Health's Q32 vision statement promotes the use of health information, AI and predictive tools to design, deliver, evaluate, and improve care and grow automation within health and support services.²⁹ The department has established a Statewide AI Project Reference Group, which published the 'Statewide Artificial Intelligence Plan' in August 2025, detailing guiding principles, focus areas, objectives and actions.³⁰
- At NSW Health, several AI initiatives are already in place related to better wound care, complex data analysis, automating repetitive processes and reviewing literature to aid clinical decision-making. A dedicated, multidisciplinary AI Taskforce has been established to help inform and guide the use of AI in the public health system and develop an AI Framework, with intended release in 2025.³¹
- In Victoria, the government has taken steps to ensure the safe adoption of AI in various sectors, including health, through its AI Action Plan, which focuses on fostering AI innovation while also prioritising ethical considerations and safeguards. Advisory boards or panels comprising experts in AI, ethics, and technology will provide guidance and ensure the responsible and transparent development and deployment of AI.

Federal government

- In 2019, the Australian Government published a report that identified three high-potential areas for AI specialisation strategies that would help boost industrial productivity, of which health, ageing and disability was included.³²
- The Australian Government's Department of Industry, Science and Resources published *Australia's AI Ethics Principles* as a voluntary framework to guide the safe, fair and responsible design, development and use of AI. It sets out eight principles – human wellbeing, human-centred values, fairness, privacy and security, reliability and safety, transparency, contestability, and accountability – to promote trust and ethical practice in AI.³³
- The Therapeutic Goods Administration (TGA) released new resources clarifying how AI within medical devices in Australia are to be regulated. The July 2025 *Clarifying and strengthening the regulation of Medical Device Software including Artificial Intelligence (AI)* report identifies priority areas for clearer definitions, stronger accountability, and better guidance to ensure safe and transparent use of AI in healthcare.³⁴ Complementing this, updated online guidance explains when AI-enabled software is considered a medical device and sets out compliance expectations for developers, manufacturers and sponsors.³⁵
- CSIRO's October 2025 *Artificial Intelligence for Healthcare in Australian Indigenous Communities: Scoping Project to Explore Relevance* report highlights that current AI frameworks are insufficiently responsive to cultural diversity and Indigenous contexts. Based on consultations with 53 Indigenous leaders, clinicians and health service providers, the report identifies three priorities for responsible AI use: strengthening AI health literacy and cultural appropriateness, protecting Indigenous data sovereignty, and ensuring Indigenous organisations lead AI design, implementation and oversight. It concludes that Indigenous-led governance is essential to prevent bias, uphold self-determination, and ensure AI systems in healthcare reflect Indigenous knowledges, values and community control.³⁶
- The Office of the Prime Minister's Chief Science Advisor (OPMCSA) released a report in December 2023 titled *Capturing the Benefits of AI in Healthcare for Aotearoa New Zealand*, which outlined 17 ethical principles across six themes to guide the development and deployment of AI in the healthcare system. The report emphasised the importance of aligning AI applications with Te Tiriti o Waitangi, ensuring safety, efficacy, equity, and effective governance. It also highlighted the need for a

comprehensive understanding of the current healthcare landscape, including legislation, policy, infrastructure, data, research, and workforce, to support the successful integration of AI applications.³⁷

- Te Whatu Ora's Artificial Intelligence and Algorithm Expert Advisory Group was established in 2024 and provides expert advice to ensure the ethical and effective use of AI and algorithms in Aotearoa New Zealand's public health system. The group focuses on promoting transparency, accountability, and equity in AI applications, aligning with Te Tiriti o Waitangi principles and supporting the responsible integration of AI application.³⁸

Other organisations

- In 2025, the Australian Health Practitioner Regulation Agency (Ahpra) and National Boards published guidance on how existing professional codes apply when healthcare practitioners use AI. The resource outlined AI definitions, benefits, risks, regulatory responsibilities, and practitioner obligations such as human oversight, informed consent, and safeguarding privacy and security.³⁹
- Te Kaunihera Rata o Aotearoa | Medical Council of New Zealand developed and consulted on a draft statement on using AI in patient care in late 2025.⁴⁰ The draft statement aimed to guide doctors on the safe, ethical and responsible use of AI in direct patient care by outlining expectations for scope, professional accountability, informed consent, documentation, privacy and data security, and understanding and overseeing AI tools' limitations and risks. A finalised statement is expected in 2026.
- The Australian Commission on Safety and Quality in Health Care (ACSQHC) developed guidance on the safe and responsible use of AI in healthcare. Resources include a literature review, clinical use guide, and safety scenarios to support effective implementation, risk management, and patient safety.⁴¹
- Professional Indemnity organisation Avant released several resources on AI. These resources aimed to explain AI, explore the safe use of AI and detail other guidance materials like those from AMA and Ahpra.⁴²

Other countries

- The World Health Organisation's 2021 *Ethics and Governance of Artificial Intelligence for Health* report provides a comprehensive framework to ensure that AI applications in healthcare are developed and used ethically and responsibly. The report outlined six core principles – respect for autonomy, non-maleficence, beneficence, justice, explicability, and responsibility – and offers actionable recommendations for governments, developers, and healthcare providers. It emphasises the importance of inclusive design, transparency, and accountability to maximise AI's benefits while safeguarding human rights and equity in health systems.⁴³
- In the USA, the American Medical Association released updated principles for the development, deployment and use of healthcare AI,⁴⁴ and the American College of Physicians released a policy position paper on the use of AI in the provision of healthcare.⁴⁵
- In the UK, the Royal College of Physicians released a position statement that urges the industry to address real-world challenges, doctors to appraise the technology and regulators to develop guidance and evaluation methods.⁴⁶
- In Canada, the Canadian Medical Association has submitted various recommendations to the House of Commons Standing Committee on Industry and Technology regarding how AI should be used in providing healthcare.⁴⁷

References

- ¹ Nundy S, Cooper LA, Mate KS. The Quintuple Aim for Health Care Improvement: A New Imperative to Advance Health Equity. *JAMA*. 2022;327(6):521–522. <https://doi.org/10.1001/jama.2021.25181>
- ² Senevirathna P, Pires DE, Capurro D. Data-driven overdiagnosis definitions: A scoping review. *J Biomed Inform*. 2023; 147:104506. <https://doi.org/10.1016/j.jbi.2023.104506>
- ³ Capurro D, Coghlan S, Pires DE. Preventing digital overdiagnosis. *JAMA*. 2022;327(6):525-6. <https://doi.org/10.1001/jama.2021.22969>
- ⁴ Magrabi F, Lyell D, Coiera E. Automation in contemporary clinical information systems: a survey of AI in clinical settings. *Yearb Med Inform*. 2023; 32:115–26. <https://doi.org/10.1055/s-0043-1768733>
- ⁵ Harrison S, Despotou G, Arvanitis TN. Hazards for the implementation and use of artificial intelligence enabled digital health interventions, a UK perspective. *Stud Health Technol Inform*. 2022; 289: 14-17. <https://doi.org/10.3233/SHTI210847>
- ⁶ Royal Australasian College of Physicians. Climate Change and Health Position Statement. The Royal Australasian College of Physicians. 2016. https://www.racp.edu.au/docs/default-source/advocacy-library/climate-change-and-health-position-statement.pdf?sfvrsn=5235361a_10
- ⁷ Kelly CJ, Karthikesalingam A, Suleyman M, Corrado G, King D. Key challenges for delivering clinical impact with artificial intelligence. *BMC Med*. 2019; 17:195. <https://doi.org/10.1186/s12916-019-1426-2>
- ⁸ He J, Baxter SL, Xu J, Xu J, Zhou X, Zhang K. The practical implementation of artificial intelligence technologies in medicine. *Nature Med*. 2019; 25:30-36. <https://doi.org/10.1038/s41591-018-0307-0>
- ⁹ Singh RP, Hom GL, Abramoff MD, Campbell JP, Chiang MF. Current challenges and barriers to real-world artificial intelligence adoption for the healthcare system, provider, and the patient. *Trans Vis Sci Tech*. 2020;9(2):45. <https://doi.org/10.1167/tvst.9.2.45>
- ¹⁰ Gerke S, Minssen T, Cohen G. Ethical and legal challenges of artificial intelligence-driven healthcare. *Artif Intell Healthc*. 2020;295–336. <https://doi.org/10.1016/B978-0-12-818438-7.00012-5>
- ¹¹ Ahmed M, Spooner B, Isherwood J, Lane M, Orrock E, Dennison A. A systematic review of the barriers to the implementation of artificial intelligence in healthcare. *Cureus*. 2023; 15(10): e46454. <https://doi.org/10.7759/cureus.46454>
- ¹² Olaye IM, Seixas AA. The gap between AI and bedside: Participatory workshop on the barriers to the integration, translation, and adoption of digital health care and AI startup technology into clinical practice. *J Med Internet Res*. 2023; 25:e32962. <https://doi.org/10.2196/32962>
- ¹³ Aung YYM, Wong DCS, Ting DSW. The promise of artificial intelligence: a review of the opportunities and challenges of artificial intelligence in healthcare. *Br Med Bull*. 2021;139(1):4-15. <https://doi.org/10.1093/bmb/ldab016>
- ¹⁴ Meskó B, Topol EJ. The imperative for regulatory oversight of large language models (or generative AI) in healthcare. *NPJ Digit Med*. 2023; 6: 120. <https://doi.org/10.1038/s41746-023-00873-0>
- ¹⁵ Goodman AG, Shinnars L, Mahoney R, Victorian Aboriginal Community Controlled Health Organisation (VACCHO), The Aboriginal and Torres Strait Islander Community Health Service (ATSICHS Brisbane), The Centre of Excellence for Aboriginal Digital in Health (CEADH) and the Australian Indigenous HealthInfoNet. Artificial intelligence for healthcare in Australian Indigenous communities: Scoping project to explore relevance. CSIRO. 2025. <https://www.csiro.au/en/news/all/news/2025/october/csiro-report-highlights-need-for-indigenous-led-approach-to-ai-in-healthcare>
- ¹⁶ Russell RG, Lovett Novak L, Patel M, Garvey KV, Craig KJT, Jackson GP, Moore D, Miller BM. Competencies for the use of artificial intelligence-based tools by health care professionals. *Acad Med*. 2023;98:348–56. <https://doi.org/10.1097/ACM.0000000000004963>
- ¹⁷ Scott I, Carter S, Coiera E. Clinician checklist for assessing suitability of machine learning applications in healthcare. *BMJ health & care informatics*, 28(1), e100251. 2021. <https://doi.org/10.1136/bmjhci-2020-100251>
- ¹⁸ Young AT, Amara D, Bhattacharya A, Wei ML. Patient and general public attitudes towards clinical artificial intelligence: a mixed methods systematic review. *Lancet Digit Health*. 2021; 3: e599-e611. [https://doi.org/10.1016/S2589-7500\(21\)00132-1](https://doi.org/10.1016/S2589-7500(21)00132-1)
- ¹⁹ Evolve. Artificial intelligence webinar series. The Royal Australasian College of Physicians. 2025. <https://www.racp.edu.au/evolve/home>
- ²⁰ Scott I, Carter S, Coiera E. Clinician checklist for assessing suitability of machine learning applications in healthcare. *BMJ health & care informatics*, 28(1), e100251. 2021. <https://doi.org/10.1136/bmjhci-2020-100251>
- ²¹ Scott I, Shaw T, Slade C, Wan TT, Barnmanray R, Coorey CP, Johnson SL, Bell L, Herd M, & Sullivan, C. M. Proposing core competencies for physicians in using artificial intelligence tools in clinical practice. *Internal medicine journal*,10.1111/imj.70112. 2025. Advance online publication. <https://doi.org/10.1111/imj.70112>
- ²² Australasian Institute of Digital Health. Implementation of AI scribes in healthcare workflows. *AIDH*. 2025. <https://digitalhealth.org.au/new-resource-ai-scribes-in-australian-healthcare/>

-
- ²³ Australian Medical Association. Automated decision making and AI regulation — AMA submission to the Prime Minister and Cabinet consultation. Canberra: AMA, 2022. <https://www.ama.com.au/articles/automated-decision-making-and-ai-regulationama-submission-prime-minister-and-cabinet>
- ²⁴ Royal Australian College of General Practitioners. Artificial intelligence in primary care. Melbourne: RACGP, 2021. <https://www.racgp.org.au/advocacy/position-statements/view-all-position-statements/clinical-and-practice-management/artificial-intelligence-in-primary-care>.
- ²⁵ Royal Australian and New Zealand College of Radiologists. Standards of practice for artificial intelligence. Sydney: RANZCR, 2020. <https://www.ranzcr.com/our-work/artificial-intelligence>.
- ²⁶ Australasian College of Dermatologists. Position statement: use of artificial intelligence in dermatology in Australia. Sydney: ACD. 2022. <https://www.dermcoll.edu.au/wp-content/uploads/2022/11/ACD-Position-Statement-Use-of-Artificial-Intelligence-in-Dermatology-in-Australia-Nov-2022.pdf>
- ²⁷ Australian Alliance for AI in Healthcare (AAAIH). A Roadmap for AI in Healthcare for Australia. 2024. <https://aihealthalliance.org/2021/12/01/a-roadmap-for-ai-in-healthcare-for-australia/>
- ²⁸ Australasian Institute of Digital Health. Implementation of AI scribes in healthcare workflows. AIDH. 2025. <https://digitalhealth.org.au/new-resource-ai-scribes-in-australian-healthcare/>
- ²⁹ Queensland Health. HEALTHQ32: A vision for Queensland's health system. Queensland Government. 2023. <https://www.health.qld.gov.au/system-governance/strategic-direction/plans/healthq32>
- ³⁰ Queensland Health. Statewide Artificial Intelligence Plan. Queensland Government. 2025. https://www.health.qld.gov.au/_data/assets/pdf_file/0026/1457513/Artificial-Intelligence-Plan-Queensland.pdf
- ³¹ NSW Health. Artificial intelligence. NSW Government. 2024. <https://www.health.nsw.gov.au/services/technology/Pages/artificial-intelligence.aspx>
- ³² Hajkowicz SA, Karimi S, Wark T, Chen C, Evans M, Rens N, Dawson D, Charlton A, Brennan T, Moffat C, Srikumar S, Tong KJ. Artificial intelligence: Solving problems, growing the economy and improving our quality of life. Australian Government, CSIRO, Data61, Australia. 2019. <https://publications.csiro.au/publications/publication/Plcsiro:EP191848>
- ³³ Department of Industry, Science and Resources. Australia's AI Ethics Principles. Australian Government. 2019. <https://www.industry.gov.au/publications/australias-artificial-intelligence-ethics-principles/australias-ai-ethics-principles>
- ³⁴ Therapeutic Goods Administration. Report: Clarifying and strengthening the regulation of Medical Device Software including Artificial Intelligence (AI). TGA. 2025. <https://www.tga.gov.au/news/news/tga-ai-review-outcomes-report-published>
- ³⁵ Therapeutic Goods Administration. Artificial Intelligence (AI) and medical device software. TGA. 2025. <https://www.tga.gov.au/how-we-regulate/manufacturing/manufacture-medical-device/manufacture-specific-types-medical-devices/artificial-intelligence-ai-and-medical-device-software>
- ³⁶ Goodman AG, Shinnars L, Mahoney R, Victorian Aboriginal Community Controlled Health Organisation (VACCHO), The Aboriginal and Torres Strait Islander Community Health Service (ATSICHS Brisbane), The Centre of Excellence for Aboriginal Digital in Health (CEADH) and the Australian Indigenous HealthInfoNet. Artificial intelligence for healthcare in Australian Indigenous communities: Scoping project to explore relevance. CSIRO. 2025. <https://www.csiro.au/en/news/all/news/2025/october/csiro-report-highlights-need-for-indigenous-led-approach-to-ai-in-healthcare>
- ³⁷ Office of the Prime Minister's Chief Science Advisor. Capturing the benefits of AI in healthcare for Aotearoa New Zealand. University of Auckland. 2023. <https://www.dpmc.govt.nz/sites/default/files/2024-01/PMCSA-23-12-04-V3-PMCSA-AI-healthcare-SHORT-REPORT-FINAL-%28pdf-version%29-v3.pdf>
- ³⁸ Te Whatu Ora. Artificial Intelligence and Algorithm Expert Advisory Group. Te Whatu Ora. 2024. <https://www.tewhātuora.govt.nz/corporate-information/about-us/expert-groups/artificial-intelligence-and-algorithm-expert-advisory-group>
- ³⁹ Australian Health Practitioner Regulation Agency & National Boards. Meeting your professional obligations when using Artificial Intelligence in healthcare. Ahpra & National Boards. 2025. <https://www.ahpra.gov.au/Resources/Artificial-Intelligence-in-healthcare.aspx>
- ⁴⁰ Medical Council of New Zealand | Te Kaunihera Rata o Aotearoa. DRAFT FOR CONSULTATION: Using artificial intelligence (AI) in patient care. Medical Council of New Zealand | Te Kaunihera Rata o Aotearoa. 2025. <https://www.mcnz.org.nz/about-us/consultations/consultation-using-artificial-intelligence-ai-in-patient-care/>
- ⁴¹ Australian Commission on Safety and Quality in Health Care. Artificial Intelligence. ACSQHC. 2025. <https://www.safetyandquality.gov.au/our-work/e-health-safety/artificial-intelligence>
- ⁴² Avant. Artificial intelligence (AI): what you need to know. 2025. <https://avant.org.au/artificial-intelligence-what-you-need-to-know>
- ⁴³ World Health Organization. Ethics and governance of artificial intelligence for health: WHO guidance. Geneva: WHO. 2021. <https://www.who.int/publications/i/item/9789240029200>
- ⁴⁴ American Medical Association. Principles for augmented intelligence development, deployment and use. AMA. 2024. <https://www.ama-assn.org/system/files/ama-ai-principles.pdf>
- ⁴⁵ Daneshvar N, Pandita D, Erickson S, Sulmasy LS, DeCamp M. Artificial intelligence in the provision of health care: An American College of Physicians policy position paper. *Ann Intern Med* 2024;177:964-967. <https://doi.org/10.7326/M24-0146>

⁴⁶ Royal College of Physicians. RCP Position Statement on AI. RCP. 2018. <https://www.rcp.ac.uk/policy-and-campaigns/policy-documents/artificial-intelligence-ai-in-health/>

⁴⁷ Ross K. Submission to the Standing Committee on Industry and Technology (INDU): An Act to enact the Consumer Privacy Protection Act, the Personal Information and Data Protection (cma.ca). Canadian Medical Association. 2024. <https://policybase.cma.ca/media/BriefPDF/BR2024-03.pdf>