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South African Medical Journal launches *South African Medical Journal Specialties*

June 2025 marks another milestone in the achievements of the *South African Medical Journal* (*SAMJ*) with the launch of *SAMJ Specialties*. The *SAMJ* is well regarded as the premier general medical journal in South Africa (SA), publishing research across various medical fields. However, some specialised research submissions fall outside the scope of *SAMJ*'s core focus, and are declined for publication despite their value. Additionally, the rapid evolution of healthcare technologies, particularly in the field of artificial intelligence (AI), demands a dedicated platform to highlight advancements and best practices in AI in healthcare. In response to this gap, the *SAMJ Specialties*, a quarterly publication designed to feature medical research and innovations in healthcare, has been created. The first issue of *SAMJ Specialties* focuses on AI, and includes applications in rural and underserved areas, advances in AI in healthcare and ethicolegal complexities that will need to be navigated. Below is a 'sneak preview' of what to expect in the journal.

Mnyaka[1] highlights how healthcare disparities between urban and rural populations remain one of the most pressing challenges in global health. In underserved areas, patients face numerous obstacles, including a lack of healthcare infrastructure, long distances to medical facilities, shortages of skilled professionals and limited access to real-time medical resources. These challenges result in poor health outcomes, higher mortality rates and increased disease burden in rural communities. In the face of these challenges, AI is emerging as a transformative tool in addressing these healthcare gaps. By leveraging AI-driven solutions, sustainable and scalable healthcare models that improve access, enhance the quality of care and optimise resources for underserved populations can be created. He explores how AI is revolutionising rural healthcare, with a focus on the practical applications that can make a meaningful difference.

Janneker[2] describes how AI emerges as a transformative force poised to address longstanding challenges and unlock new opportunities as SA navigates the complexities of its healthcare system. With an overburdened public health sector, a growing disease burden and disparities in access to quality care, AI-driven solutions offer the potential to enhance diagnostic accuracy, streamline operations and improve patient outcomes. From predictive analytics that anticipate disease outbreaks to AI-powered telemedicine platforms bridging the urban-rural healthcare divide, he highlights that the integration of AI in healthcare is no longer a futuristic vision, but an urgent necessity. As SA embraces digital transformation, fostering AI innovation will be key to ensuring a more efficient, accessible and patient-centric healthcare system.

Ngcobo[3] discusses how the deployment of medical AI raises critical ethical concerns regarding patient autonomy, informed consent, data protection and accountability. From a legal standpoint, SA must navigate a complex regulatory terrain to ensure that AI aligns with constitutional rights and statutory obligations while fostering innovation. He explores the legal and ethical dimensions of medical AI in SA, and argues for a balanced approach that encourages technological advancement without compromising fundamental principles of medical ethics and patient rights.

Mahomed[4] addresses the connection between AI and data for healthcare in SA, and emphasises that data and AI are fundamentally linked. She underscores that the increased demand for data has highlighted system vulnerabilities, and describes the current legal protections in place to safeguard data. She also considers whether these protections are sufficient and translatable to our local SA context, and offers certain recommendations towards improvement.

Norcliffe-Browne and McCartney[5] explain the British Medical Association's policy paper 'Principles for Artificial Intelligence (AI) and its application in healthcare'. Their article sets out a definition of AI, and acknowledges the potential benefits and drawbacks of AI in UK healthcare with respect to (*i*) health outcomes; (*ii*) health inequalities and historically marginalised groups; (*iii*) the doctor-patient relationship; (*iv*) job quality; and (*v*) efficiency and healthcare costs. They conclude by considering how to ensure that the effects of AI are positive, highlighting that AI is just a tool, and what matters is how it is implemented.

Daryanani and Ehrenfeld[6] discuss how integration of AI into medical practice is not without challenges. Practitioners remain divided, with some viewing AI as a powerful tool for augmenting medical decision-making, while others question its reliability, ethical implications and impact on the physician-patient relationship. They examine the promise and limitations of AI in medicine, and address critical concerns surrounding bias, liability, regulatory uncertainty and physician adoption. They also explore how AI is currently being used in healthcare, the barriers preventing its seamless integration and the governance structures needed to ensure its responsible deployment.

Fairness and mitigation of bias are essential, and are echoed throughout the issue. This is necessary for AI to be deployed equitably. Therefore, means of identifying and mitigating biases in AI systems are to be developed, and data sets must be inclusive and represent all demographics. This is in line with the national AI policy framework in SA,[7] which emphasises that there must be human control of AI technology, i.e. a human-centred approach in AI systems. Hence human oversight over AI must be maintained, and critical AI decisions must involve human oversight. AI decision-making must prioritise human judgement in alignment with human-in-the-loop systems.[8]

The key focus areas of *SAMJ Specialties* include targeted research in fields such as oncology, cardiology, neurology, immunology and other specialties that require focused attention beyond the general medical scope; emerging trends and advancements in specialised areas, including precision medicine, genomics and telemedicine; research and case studies on the application of AI in diagnosis, treatment planning, patient care and healthcare administration; evaluations of AI's impact on healthcare delivery, patient outcomes and medical ethics; and publishing on AI's cutting-edge technological advancements. We look forward to your contributions to *SAMJ Specialties*, and eagerly await your articles towards the next issue.

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