

Integration of artificial intelligence in the MBBS curriculum

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Dear Editor, ¹The growing influence of artificial intelligence (AI) is rapidly and profoundly changing our healthcare system. It is, therefore, imperative to integrate AI training into medical education, specifically the Bachelor of Medicine, Bachelor of Surgery (MBBS) programme, to equip future doctors for contemporary and forthcoming challenges in global healthcare. ¹ Integrating AI training will prepare medical graduates to work effectively within an AI-augmented healthcare environment, ultimately enhancing patient care and improving outcomes.

The integration of AI into the MBBS curriculum necessitates a composite approach to ensure students acquire functional knowledge. However, this implementation is challenging. ²The existing curriculum is already dense with core clinical subjects; thus, AI content must be incorporated judiciously without diluting essential medical training. The objective should be to foster a robust understanding of AI principles through efficient, focused teaching methodologies. Given the rapid evolution of AI, the curriculum will require continuous updates. Furthermore, education must address critical ethical considerations inherent to AI in medicine, such as patient data privacy, algorithmic bias, and the preservation of the human element in patient care. It is also recognised that theoretical training alone may not fully prepare students for complex real-world scenarios.

To function effectively in modern healthcare, students must develop competencies that allow them to utilise AI-driven diagnostic tools and integrate AI-based technologies into daily practice. Interdisciplinary collaboration with fields such as data science, engineering, and ethics is essential for a comprehensive understanding of AI systems. Pedagogical strategies like virtual interactive patient cases could provide valuable simulated clinical experiences where

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Submission completed: 22-09-2025 **1st Revision received:** 08-10-2025

Acceptance: 31-12-2025

2nd Revision received: 30-12-2025

students can apply AI tools. ³ As AI permeates more medical specialities, the need for clinicians to understand these technologies becomes increasingly urgent. Its prudent adoption promises to augment diagnostic precision, operational efficiency, and therapeutic decision-making. ⁴

Incorporating AI training into the MBBS syllabus is crucial for preparing the next generation of doctors for a dynamically evolving medical landscape. ⁵ Through structured education, we can cultivate a cohort of healthcare professionals who are proficient in both foundational medical practice and the application of supportive AI technologies. As AI continues to reshape healthcare, medical education must correspondingly evolve to equip students with the necessary knowledge and skills to harness its potential fully.

Disclaimer: None.

Conflicts of interest: None.

Funding disclosure: None.

DOI: <https://doi.org/10.47391/JPMA.32727>

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Author Contribution:

MW: Concept, design, drafting, content, final approval and agreement to be accountable for all aspects of the work.

SH: Critical expertise, essential referencing, focussing on the practical and clinical relevance of AI integration and assisting and revision.

MSR: Data analysis, ethical and educational considerations of AI in medical curriculum and key revisions.