

To the Editor: An Urgent Call to Action to Integrate Artificial Intelligence Curriculum Into Medical Education

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The medical community has recently seen an unprecedented surge in literature regarding the use of artificial intelligence (AI) in health care. With machine learning algorithms and predictive analytics, AI has infiltrated electronic medical records, learning platforms, datasets, and more.

We applaud the editorial by Sullivan et al for encouraging graduate medical education trainees, programs, faculty, and institutions to share how they are utilizing AI technology.¹ However, despite the increased awareness and discourse surrounding AI technology, there remains a substantial deficit in its integration within medical curricula internationally. Weidener and Fischer conducted a scoping review on AI curricula in medical education and identified a scarcity of literature, notably a lack of empirical studies and foundational definitions concerning AI ethics.² Additionally, survey studies have indicated that medical students recognize the need for curricula that incorporate these technological advances, which will inevitably shape future practice.³

It is imperative for resident physicians and medical students to recognize the limitations of AI and the avenues through which bias and misinformation can be introduced. An understanding of the principles of privacy, informed consent, transparency, and accountability, as they pertain to both the utilization of AI in patient data models and health care decision-making, is crucial for fostering trust between patients and physicians regarding AI.

As the landscape of AI evolves at a rapid pace, we acknowledge that the challenges of incorporating AI curricula in medical education are substantial. However, so too are the potential consequences if physicians enter this landscape unprepared; without proper ethical comprehension of these emerging technologies, there is a risk for perpetuating harm and bias in medicine.

We urge medical educators to facilitate opportunities for medical students and residents to engage with ethical principles of AI under the guidance of experts. Innovative educational initiatives should continue to be trialed and shared within the medical educator community. We need to ensure that health care professionals not only are adept at leveraging AI to their advantage but also are prepared to navigate the evolving ethical dilemmas posed by these technologies.

References

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