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Pros and Cons of Artificial Intelligence in Medical Education: A Review

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The integration of Artificial Intelligence (AI) into medical education has gained significant momentum in recent years, reshaping how future healthcare professionals are trained. This review explores the advantages and disadvantages of incorporating AI technologies into medical education. On the positive side, AI enhances personalized learning, improves access to medical knowledge through intelligent tutoring systems, and facilitates simulation-based training that mirrors real-life clinical scenarios. It also aids in early identification of learning difficulties and promotes adaptive curriculum development. However, concerns persist regarding over-reliance on AI, potential bias in training algorithms, data privacy issues, and the ethical implications of machine-led instruction. Furthermore, unequal access to AI tools may widen educational disparities among institutions and students. This paper critically examines current literature to assess the impact of AI on educational outcomes, student engagement, and the teacher-student dynamic. While AI presents a transformative potential, its application in medical education must be carefully balanced with human mentorship, clinical judgment, and ethical oversight to ensure it complements rather than replaces traditional pedagogical methods.

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