From Anatomy to Algorithm: Scope of AI-Assisted Diagnostic Competencies in Health Sciences Education [

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text (article)

Analítica

The article explores the evolution of medical knowledge from its anatomical and functional foundations to the integration of advanced technological tools, focusing on the impact of artificial intelligence (AI) on the development of diagnostic competencies. Initially, medical training relied on direct observation and clinical judgment based on anatomical and surgical knowledge. Subsequently, the inclusion of physiology and pathology enabled a functional understanding of the human body, transforming diagnosis into a systematic skill supported by objective data such as laboratory tests and medical imaging. The integration of AI in recent decades has revolutionized this process, offering unprecedented capabilities to analyze complex clinical data. Tools such as machine learning algorithms and predictive systems have enhanced diagnostic precision, allowing for the identification of previously unnoticed patterns. This data-driven approach strengthens physicians' ability to correlate clinical symptoms and signs with specific pathological entities. However, the incorporation of AI presents challenges in medical education. Future physicians must combine learning traditional clinical foundations with mastering advanced technologies, all while maintaining an ethical and patient-centered approach. Furthermore, excessive reliance on technology and biases inherent in algorithms underscore the need to balance technological innovation with human clinical judgment. The article highlights that medical education must adapt to include critical competencies such as digital literacy, ethical reasoning, and critical thinking. AI-based simulators and educational platforms are playing a key role in preparing physicians for a more digitized clinical environment, while research remains essential to ensure transparency and fairness in these technologies

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