



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

2024

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

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

<https://rebiunoda.pro.baratznet.cloud:28443/OpacDiscovery/public/catalog/detail/b2FpOmNlbGVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzcyOTU4OTY>

Título: From Anatomy to Algorithm: Scope of AI-Assisted Diagnostic Competencies in Health Sciences Education [electronic resource].]

Editorial: 2024

Tipo Audiovisual: Artificial Intelligence Medical Diagnosis Medical Education Pattern Recognition Clinical Competencies Inteligencia Artificial Diagnóstico Médico Educación Médica Reconocimiento de Patrones Competencias Clínicas

Documento fuente: International Journal of Medical and Surgical Sciences, (IJMSS), ISSN 0719-3904, Vol. 11, Nº. 3, 2024 (Ejemplar dedicado a: September, 2024)24 pags

Nota general: application/pdf

Restricciones de acceso: Open access content. Open access content star

Condiciones de uso y reproducción: LICENCIA DE USO: Los documentos a texto completo incluidos en Dialnet son de acceso libre y propiedad de sus autores y/o editores. Por tanto, cualquier acto de reproducción, distribución, comunicación pública y/o transformación total o parcial requiere el consentimiento expreso y escrito de aquéllos. Cualquier enlace al texto completo de estos documentos deberá hacerse a través de la URL oficial de éstos en Dialnet. Más información: <https://dialnet.unirioja.es/info/derechosOAI> | INTELLECTUAL PROPERTY RIGHTS STATEMENT: Full text documents hosted by Dialnet are protected by copyright and/or related rights. This digital object is accessible without charge, but its use is subject to the licensing conditions set by its authors or editors. Unless expressly stated otherwise in the licensing conditions, you are free to linking, browsing, printing and making a copy for your own personal purposes. All other acts of reproduction and communication to the public are subject to the licensing conditions expressed by editors and authors and require consent from them. Any link to this document should be made using its official URL in Dialnet. More info: <https://dialnet.unirioja.es/info/derechosOAI>

Lengua: English

Enlace a fuente de información: International Journal of Medical and Surgical Sciences, (IJMSS), ISSN 0719-3904, Vol. 11, Nº. 3, 2024 (Ejemplar dedicado a: September, 2024)24 pags

Baratz Innovación Documental

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es