

Role of Artificial Intelligence in Critical Care Medicine: A Technological Aspect

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Abstract

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In contemporary society, life has become increasingly dependent on Artificial Intelligence (AI), which has emerged as a transformative force, particularly in healthcare as well as critical care medicine. By integrating advanced medical technologies to enhance precision, efficiency, and patient outcomes. This review explores the technological underpinnings of AI applications in critical care, focusing on innovations such as real-time and predictive analytics, online monitoring systems, and automated decision-support tools. Data collection and analysis are increasingly deployed to process multimodal information streams—ranging from electronic health records and patient connected devices to imaging modalities—enabling early detection of specific complications, hemodynamic instability, and organ failures. At the same time, it's possible to generate some treatment actions in case of need.

Categories: Other

Keywords: artificial intelligence (ai), critical care, icu (intensive care unit), anesthesia, advanced technologies