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Artificial Intelligence in Healthcare
A Paradigm Shift towards Personalized Treatment

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Abstract: *Artificial Intelligence (AI) has emerged as a transformative force in healthcare, offering unprecedented opportunities for personalized treatment and improved patient outcomes. Healthcare resources are in challenging proportion to population worldwide and especially when it comes to developing countries. To use these resources efficiently can be a concern of life and death for an individual. It's a comprehensive review of AI applications in healthcare, with a focus on its role in facilitating personalized treatment strategies. This article underscores the imperative for continued research, collaboration, and innovation in leveraging AI to usher in a new era of personalized healthcare delivery. Concept is beyond expectations particularly in developing countries Beginning with an overview of AI technologies, including machine learning, deep learning, and natural language processing, a delve into their applications across various healthcare domains, such as disease diagnosis, treatment planning, and patient monitoring is performed. Furthermore, exploration of the challenges and ethical considerations associated with the integration of AI into healthcare systems is considered so as to ensure concern related to health and life of human being. AI-driven decision support systems enable clinicians to make more informed and timely decisions, improving patient outcomes while optimizing resource utilization. Through this analysis, AI's potential to revolutionize healthcare delivery by enabling tailored treatment approaches that account for individual patient characteristics and preferences is highlighted..*

Keywords: Artificial Intelligence, Healthcare, Personalized Treatment, Machine Learning, Deep Learning.