

Artificial Intelligence in Geriatric Medicine

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Dear Editor,

The use of artificial intelligence (AI) is increasingly being employed in various fields of geriatric medicine like dementia, delirium, fall, and other geriatric syndromes. AI can improve the health and well-being of the elderly and has the potential to assist and improve geriatric care.

By using AI as the latest entry into our ecosystem, we can enhance the capabilities of clinicians, patients, and their broader communities. AI is usually defined as a computing platform or a machine that is capable of making intelligent decisions. AI research aims to create systems that approach human intelligence through computer software (1). Most AI applications in healthcare apply some form of 'machine learning', where computers learn from datasets to perform tasks (2). Also, AI systems like ChatGPT can provide rapid and accurate information on a wide range of topics and can be used to aid in decision-making and patient care (3).

There are many potential applications of AI in healthcare for older adults, and the impact of AI technologies on older adults' healthcare is promising. AI could enhance diagnostic, prognostic, morbidity or mortality risk assessment and treatment approaches for the growing aging population. Specialties such as cardiology, radiology, and pathology are already using AI in the process of image analysis. However, due to the advancement of AI technologies, there is currently a lack of clarity regarding the types and roles of AI technologies in the healthcare of older adults.

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The AI devices utilized in older people's healthcare can be summarised as robots, intelligent homes, exoskeleton devices, wearables, AI-enabled health smart applications, virtual reality, and voice-activated devices (4).

For instance, early recognition of frailty syndromes, prediction of dementia, and identification of delirium may also be facilitated by AI-enabled clinical decision support systems. Using machine learning to identify targets for drug repurposing in Alzheimer's disease, and falls can be detected through AI analysis of kinetic data from a smartwatch. In addition, social assistance robots provide emotional support to the elderly, and physical rehabilitation robots assist with physiotherapy exercises (2, 5).

These functions can meet the increasing unmet healthcare needs of the elderly and compensate for the current situation of inadequate healthcare resources. It is crucial to note the significant benefits of AI in improving patient care outcomes, both clinically and financially. However, AI systems should be used in conjunction with clinical knowledge and experience. More well-designed randomized controlled trials are needed to validate the roles of AI technologies in older adults' healthcare.

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