AI-Assisted Medication Review in Elderly: A Custom ChatGPT Approach Based on STOPP / START Criteria

Nithyasri. D
Student, Vignan Institute of Pharmaceutical Technology, besides VSEZ, Duvvada, Vadlapudi Post, Gajuwaka, Visakhapatnam, Andhra Pradesh, India

G. Alekhya
Student, Vignan Institute of Pharmaceutical Technology, besides VSEZ, Duvvada, Vadlapudi Post, Gajuwaka, Visakhapatnam, Andhra Pradesh, India

B. Sree Vaishnavi
Student, Vignan Institute of Pharmaceutical Technology, besides VSEZ, Duvvada, Vadlapudi Post, Gajuwaka, Visakhapatnam, Andhra Pradesh, India

Abstract

This study explores the development and validation of a customized ChatGPT model to aid in medication reviews for elderly patients, using the STOPP / START criteria as a guide. By analyzing anonymized prescriptions from patients aged 65 and above, the tool was fine-tuned to detect potentially inappropriate medications (PIMs) and prescribing omissions. The model achieved high accuracy, with a sensitivity of 93% and strong agreement with expert pharmacists. It also significantly reduced the time needed for medication reviews. These results suggest that integrating AI tools like ChatGPT into geriatric care can enhance medication safety and ease the clinical workload. Broader testing and the inclusion of START criteria are recommended for future application.