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Short communication

Pharmacoeconomic evidence for pharmacist-led New Medicine Services in hypertension management

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Introduction

Poor adherence to antihypertensive therapy remains a major contributor to uncontrolled hypertension, preventable cardiovascular complications and increased healthcare expenditure worldwide. Pharmacist-led New Medicine Services (NMS) have emerged as structured pharmaceutical care interventions designed to improve early treatment adherence and optimize long-term therapeutic outcomes. Although the clinical benefits of NMS have been increasingly recognized, evidence regarding their pharmacoeconomic value in hypertension management remains fragmented. This literature review aimed to evaluate the economic impact and cost-effectiveness of pharmacist-led NMS interventions among patients initiating antihypertensive therapy.

Materials and methods

A structured literature review was conducted to evaluate recent evidence regarding the clinical and pharmacoeconomic impact of pharmacist-led New Medicine Services (NMS) in patients initiating antihypertensive therapy. Electronic searches of PubMed/MEDLINE, Scopus, Web of Science and Google Scholar identified studies published between 2020 and 2025 using predefined keywords related to NMS, hypertension, medication adherence, pharmacoeconomics and cost-effectiveness. Eligible studies included randomized controlled trials, economic evaluations, implementation studies and systematic reviews reporting adherence or pharmacoeconomic outcomes. Extracted data included adherence rates, healthcare utilization, quality-adjusted life years (QALYs), incremental cost-effectiveness ratios (ICERs) and healthcare costs.

Results and discussion

Recent evidence suggests that pharmacist-led New Medicine Services (NMS) may provide clinically meaningful and economically sustainable benefits during initiation of antihypertensive therapy. The reviewed literature consistently identified the early treatment phase as a critical period for development of non-adherence, adverse effect-related discontinuation and poor long-term blood pressure control. The strongest pharmacoeconomic evidence originates from the English NMS randomized controlled trial and subsequent modelling analyses conducted by Elliott et al. Adherence to newly initiated chronic therapy improved by approximately 10% compared with

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normal practice, with hypertension representing nearly half of the included study population (Elliott et al., 2020). Structured pharmacist consultations focused on identification of medicine-related problems, adverse effects and adherence barriers.

Economic analyses demonstrated favorable long-term outcomes associated with NMS interventions. Reported QALY gains ranged between 0.04 and 0.05 per patient, while estimated healthcare cost reductions ranged from approximately £100 to £150 per patient from the NHS perspective. Published ICERs consistently favored NMS, ranging from dominant scenarios with negative ICER values to highly cost-effective estimates between approximately −£2,700/QALY and −£3,200/QALY (Elliott et al., 2017). Probabilistic sensitivity analyses demonstrated high probabilities of cost-effectiveness, ranging from 89% to 97% at conventional willingness-to-pay thresholds of £20,000/QALY (Elliott et al., 2017; Elliott et al., 2020). The 26-week follow-up analyses demonstrated attenuation of adherence differences over time; however, adherence remained numerically higher in the NMS arm (65.6% vs 57.1%), while long-term modelling continued to support favorable economic outcomes (Elliott et al., 2020). These findings suggest that even modest improvements in early medication persistence may reduce downstream cardiovascular complications and healthcare utilization. Additional support for broader implementation of NMS within European healthcare systems was provided by the recent Polish review addressing adherence to newly prescribed medicines in chronic diseases. The authors emphasized that structured pharmacist-led interventions may represent a cost-effective strategy for healthcare systems facing increasing chronic disease burden and limited healthcare resources (Merks et al., 2024).

Overall, the pharmacoeconomic value of NMS appears to be primarily driven by prevention of early treatment discontinuation, improved medication persistence and reduction of avoidable cardiovascular complications. Nevertheless, most available evidence originates from the United Kingdom and relies partly on model-based extrapolation, while robust real-world pharmacoeconomic data from Southeast Europe remain limited.

Conclusion

Current evidence suggests that pharmacist-led New Medicine Services may represent a clinically beneficial and cost-effective strategy for improving adherence to newly initiated antihypertensive therapy. Available pharmacoeconomic analyses consistently demonstrate favorable ICER profiles, QALY gains and reductions in long-term healthcare costs, primarily through prevention of early treatment discontinuation and avoidable cardiovascular complications. Further real-world economic evaluations from Southeast European healthcare systems are warranted to confirm transferability and long-term sustainability of NMS implementation.

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