**Impact of medication management interventions on healthcare utilisation in dementia: Systematic review**

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Introduction. People with dementia often face challenges associated with managing multiple comorbidities and polypharmacy, which consequently may contribute to increased demand on healthcare services. Medication management interventions have demonstrated effectiveness in reducing medication-related problems; however, their impact on healthcare utilisation outcomes in dementia populations remains unclear.

Aims. To summarise the impact of medication management interventions on healthcare utilisation in people with dementia.

Methods. A systematic literature search was performed in Embase, MEDLINE, Web of Science, Cochrane CENTRAL Register of Controlled Trials, CINAHL, PsycINFO from database inception to April 2025. All interventional studies reported on medication management interventions for people with dementia were included. Interventions were categorised based on the global evidence guide of health system decision-making (Cochrane Effective Practice and Organisation of Care). A narrative synthesis was conducted to report study outcomes. Mixed Methods Appraisal Tool was used to assess the quality of all studies.

Results. A total of 13294 articles were identified with 12 studies eligible for inclusion. Interventions were categorised into interventions targeted at healthcare professionals (n=7), coordination of care (n=4), and technology-based intervention (n=1). Key components of medication management targeted across interventions were medication adherence, monitoring, review, reconciliation and deprescribing. Among these, significant reduction was reported only for coordination of care intervention (Hazard Ratio=0.49, 95% CI = 0.27-0.90). Only one study target healthcare professionals and reported significant reduction in emergency department visit in one year (Incidence Rate Ratio = 0.04, 95% CI = 0.01-0.13). There was limited evidence on the impact on primary care visits (n=2) or institutionalisation (n=3) and no significant effect were observed. The quality of evidence was moderate to high.

Discussion. This review identified a range medication management interventions tested in people with dementia with mixed impact on healthcare related outcomes. Future research should focus on developing well-designed interventions to optimise healthcare utilisation in people with dementia.