Evaluating general practice pharmacist-led medicines reviews on prescribing appropriateness and patient-reported outcomes

Clare Kinahan1, Ciara Kirke2, Leon O'Hagan1, Frank Moriarty3, Kevin Murphy4, Laura Sahm4, Emma J. Coyle1, Stephen Byrne4, Kieran Dalton4
1 Health Service Executive; 2 National Medication Safety Programme, National Quality and Patient Safety Directorate, HSE; 3 School of Pharmacy and Biomolecular Sciences, RCSI, Dublin
4Pharmaceutical Care Research Group, School of Pharmacy, University College Cork

Background

The rates of polypharmacy and problematic polypharmacy are rising and are associated with medication-related harm and reduced quality of life. The iSIMPATHY project [1] provided an opportunity for pharmacists to join the general practice team to deliver comprehensive person-centred medicines reviews. While many studies measure prescribing appropriateness, there is limited evidence of such reviews' effects on patient-reported outcome measures (PROMs).

Aim

To investigate the impact of pharmacist-led person-centred medicines reviews in general practice on prescribing appropriateness, polypharmacy indicators (markers of high-risk prescribing) [2] and PROMs.

Methods

Following training, four pharmacists joined ten general practices between Jan 2021 and Dec 2022. Patients prescribed ≥10 regular medicines or at high risk of medication-related harm were offered medicines reviews incorporating shared decision making (fig 1), following Scottish Polypharmacy Guidance [3]. The pharmacist made recommendations to the general practitioner (GP) and followed up with the patient and others as needed. Pre- and post-review: i) polypharmacy indicators and, for a sample of patients, ii) Person-Centred modification of the Medication Appropriateness Index (PC-MAI) scores and/or iii) PROMs were collected.

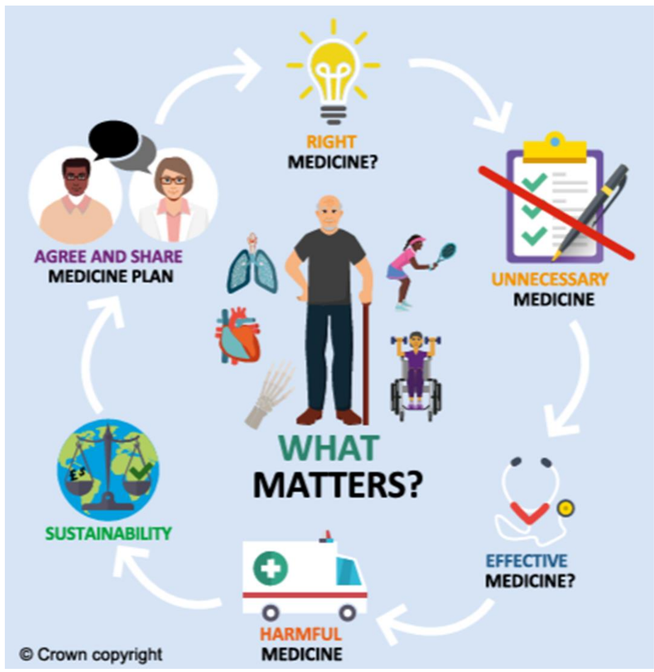

Fig 1: 7 Steps to Appropriate Polypharmacy

Results

Data is presented on 1,471 patients with a mean age of 76 years (standard deviation [SD] 9.5).
The number of medicines reduced from a mean of 13.8 (SD 4.7) pre-review to 12.3 (SD 4.3) post-review.
Polypharmacy indicators were identified 1,056 times in 47.1% of patients. The most common were bleeding- (29.5%), falls- (22.8%), and renal-related (13.2%). 70.7% were resolved following the review.
Pre- and post-review PC-MAI scores were calculated for 194 (13.2%) patients. The PC-MAI scores reduced (improved) from a mean of 27.1 (SD 14.8) pre-review to 9.8 (SD 9.9) post-review, a large improvement. 99.0% of patients experienced improved appropriateness.
Pre- and post-review PROMs were gathered for 179 patients, 93.9% of whom reported their review helped with one or more domain (fig 2). Examples of freetext comments are reported below. Significant differences between pre- and post-review were noted across all adverse effect categories, except headache (fig 3).

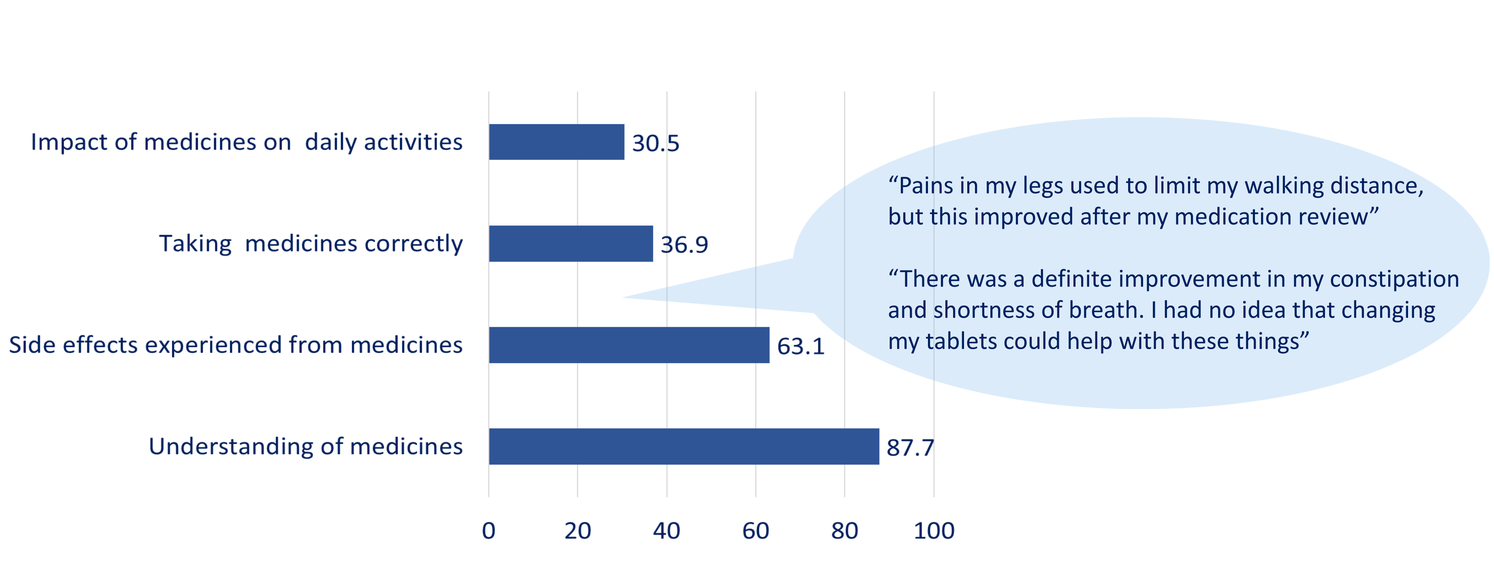

Fig 2: Percentage of patients reporting their medicines review helped with…

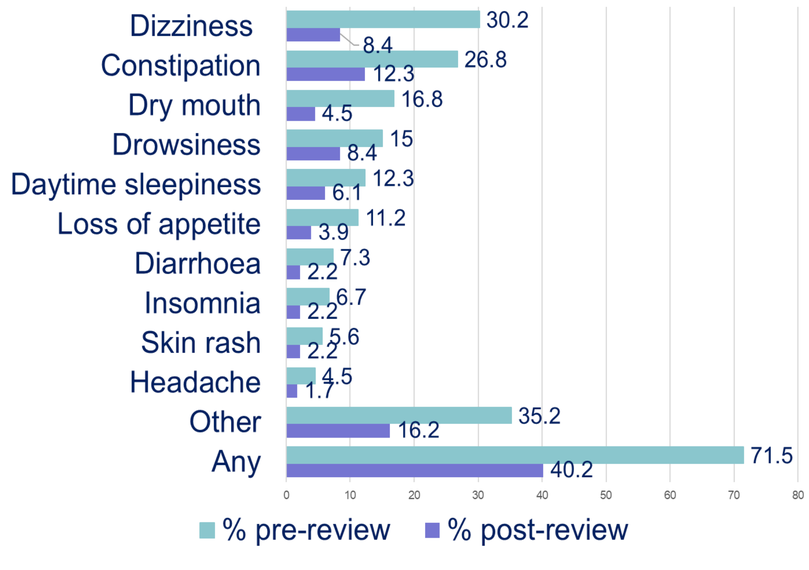

Fig 3: Percentage of patients reporting selected adverse effects pre- and post-review

Conclusion

General practice pharmacist-led person-centred medicines reviews for patients at high risk of medicines-related harm resulted in substantially improved prescribing appropriateness and patient-reported outcomes, including medicines understanding, adherence and reduced medication-related harm.
This study provides evidence to support the wider implementation of these comprehensive medicines reviews incorporating shared decision making in primary care.

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iSIMPATHY making medication personal

For more information:
ciara.kirke@hse.ie

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