Impact of practice based clinical pharmacist led medication reviews on ambulatory patients with hyper polypharmacy

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Background

- Problematic polypharmacy is a 'wicked problem' at the heart of medicines usage in patients with multi-morbidity, and review by medicines experts in primary care is essential[1]
- RCGP has called for older patients to have support to manage their medication and the need recognised with health and social care services to ensure that appropriate plans are in place[2]

Aim

To assess the impact of medication reviews by a clinical pharmacist in ambulatory patients with hyper polypharmacy (≥ 10 medicines)[3]

Methods

- Patients, within a large urban practice in Dorset, ≥ 75 years old with ≥ 10 regular medicines (BNF chapters 1-4 and 6-10) were identified using the NHS Business Service Authority Polypharmacy database[4]. Patients who were palliative, housebound, lived in a care home or with dementia were excluded following GP validation
- Patients were sent a letter from their personal GP inviting them to attend a 30-minute consultation with a clinical pharmacist prescriber employed by the practice. The consultations were structured around the NO TEARS' tool for medication review[5] and medicines at high risk of causing preventable drug-related admissions to hospital were targeted[6] .
- The age and frailty status of patients, number of medicines pre- and post-consultation, and the nature of medicines optimisation decisions were recorded.
- Satisfaction post consultations was self-assessed using the RCGP GP registrar patient satisfaction questionnaire (7-point Likert scale: poor - outstanding)
- Ethics approval was not necessary as this study was evaluation of a new service

References

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Findings

- 85 out of 17000 (0.5 %) patients were receiving ≥ 10 medicines
- 37/85 (44%) patients were excluded (17 were house bound or in a care home, 20 had dementia, were palliative or had died)
- 34/48 patients (71%) patients replied to the letter and were seen by the clinical pharmacist, 2 were excluded as they were taking < 10 medicines
- The median age of the 32 eligible patients was 83.5 (range 75 – 95), male to female ratio 47:53% with a median Rockwood clinical frailty score of 4 (range 3 – 6)
- 30/32 (94%) patients had their medication regimens optimised *See table 1 for details*
- 28/32 (88%) patients completed the satisfaction survey, and all rated the overall consultation as very good to outstanding (median score 6 = excellent). All elements of the survey had a median score of 6

Table 1: Medicines Optimisation issues identified during consultation

Metric	Frequency	Range
Number of medicines pre-consultation	11 (median)	10-19
Number of medicines post-consultation	10 (median)	8-18
Number of patients with medicines stopped	20/32 (63%) at least 1 medicine 7/20 (35%) a high risk medicine*	1-4
Number of patients with high risk medicines* stopped	7/32 (22%) NSAID = 2 Antiplatelet = 3 Diuretic = 2	1
Number of patients with at least 1 medication dose changed	24/32 (75 %)	1-2
Number of patients with at least 1 new medication started	4/32 (12.5 %)	1-2
Number of patients with at least 1 medication ADR identified	15/32 (47%)	1-3
Number of patients with at least 1 medication adherence issue identified	12/32 (38%)	1

* High risk medicines associated with preventable drug-related admissions to hospital: NSAIDS, Anti-thrombotics, Anti-platelets, Diuretics

Discussion

- The true value of clinical pharmacists conducting medication review needs further examination on a larger scale across multiple sites, and should include follow up data regarding subsequent consultations and hospital admissions
- A limitation of this work was that the pharmacist was susceptible to the Hawthorne effect
- There is an opportunity for practices to adjust their team skill mix and prioritise patients with multiple QOF recalls being reviewed by clinical pharmacists. This should allow practice nurses to focus on patients with single long-term conditions in addition to their provision of acute care

Conclusion

- All patients highly rated medication reviews with a clinical pharmacist, nearly all had their medication regimens optimised and a fifth had a high-risk medicine associated with preventable drug-related admissions stopped
- This model of care supports the RCGP recommendation to prioritise the care of patients living with multiple long-term conditions by adopting face to face dedicated medicine reviews incorporating the skills of GPs and practice-based pharmacists