

Medicines Optimisation in Residential Care

S Park, H McKee, Medicines Optimisation in Older People (MOOP), Pharmacy and Medicines Management, Northern Health and Social Care Trust (NHSCT)

Introduction

In winter 23/24, the Northern Health and Social Care Trust (NHSCT) tested an anticipatory care model in residential care homes. The model included a Medicines Optimisation In Older People (MOOP) pharmacist medication review service and pharmacy education element.

Aim

To assess the impact of pharmacist led, patient centred, medicines optimisation reviews, in the residential care home setting.

Method

The MOOP pharmacist completed patient-centred, medication optimisation reviews, and carried out education sessions for senior carers across four residential homes within the NHSCT area.

Results

In total 92 residents had their medications reviewed by the pharmacist. Table 1 shows a summary of the baseline data.

Table 1. A summary of baseline data

No. of residents reviewed	92	
Average age	85 years	
Gender	40% male	60% female
Average Clinical Frailty Score (CFS)	5.56 (range 4-7)	
Average no. of regular medications per resident	8.78 (range 2-22)	
Percentage of residents deemed a falls risk	64%	



The pharmacist made a total of 322 medicine optimisation recommendations/interventions, an average of 3.5 per resident. Of the 322 medicine optimisation recommendations/interventions 115 (36%) were in relation to falls prevention, an average of 1.3 per resident. To assess the clinical significance of each recommendation/intervention Eadon¹ grades were assigned. The SchARR² model was then applied to estimate potential healthcare cost avoidance. Table 2 shows the number of interventions by Eadon grade and the corresponding cost avoidance as per SchARR. Interventions of note included antihypertensives being stopped or dose reduced for 20 residents (22%), and bone protection being commenced or altered for 31 residents (34%).

Table 2. The number of interventions by Eadon grade, and the corresponding potential healthcare cost avoidance modelled by SchARR.

	No. of medicine optimisation interventions	Cost avoidance modelled by SchARR
Eadon grade 3 (significant but does not lead to an improvement in patient care)	81 (25%)	£0-486, (av. £283.50)
Eadon grade 4 (significant and results in an improvement in the standard of care)	101 (31%)	£6565 – 15,150 (av. £10,908)
Eadon grade 5 (significant & prevents a major organ failure or adverse reaction of similar importance)	138 (43%)	£111,780 – 170,016 (av. £140,829)
Eadon grade 6 (potentially life-saving)	2 (0.6%)	£2,464 – 3,520 (av. £2,994)
Total	322	£120,809 – 189,172 (av. 155,014.50)

The two Eadon grade 6 interventions were:

1. A medication error– two high dose diuretics prescribed; one stopped. Prevented potential dehydration and acute kidney injury.
2. A resident prescribed amlodipine, diltiazem and bisoprolol. Two calcium channel blockers, and two rate control agents. Diltiazem weaned to stop. Improved constipation and potentially prevented future complications such as bradycardia or heart block.

Conclusion

Results demonstrate the positive impact and value of medicines optimisation by a pharmacist in the residential care home setting.

References

1. Eadon, H. (1992). Assessing the quality of ward pharmacists' interventions. *International Journal of Pharmacy Practice*, 1(3), pp. 145-147. <https://doi.org/10.1111/j.2042-7174.1992.tb00556.x>.
2. Karnon, J., McIntosh, A., Dean, J., Bath, P., Hutchinson, A., Oakley, J., Thomas, N., Pratt, P., Freeman-Parry, L., Karsh, B. T., Gandhi, T., & Tappenden, P. (2008). Modelling the expected net benefits of interventions to reduce the burden of medication errors. *Journal of Health Services Research and Policy*, 13(2), pp. 85-91. <https://doi.org/10.1258/jhsrp.2007.007011>.