Pilot study of Pharmacy Team Led Care Home Medication Reviews in Annandale and Eskdale

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Summary

Care homes exist to provide accommodation and personal care for those who are unable to manage in their own homes. In general, care home residents tend to be elderly and may have multiple or complex medical conditions that can cause both physical and cognitive issues. As such, it is common for many residents to be prescribed multiple medications to treat these conditions (known as polypharmacy). The combination of advanced age, requirement for residential care, multiple co-morbidities and the need for multiple medications to treat these results in significant polypharmacy for many care home residents, who consequently have a higher risk of developing frailty. Frailty is known to increase the likelihood of falls, general decline, and hospital admissions, therefore it is important to minimise risk where possible for each resident . An effective way to manage this is through regular medication review, where the medication-associated risks for developing frailty can be identified and minimised before they become an issue. A systematic approach to ensuring that care home residents are having regular medication reviews is therefore essential to providing the safest level of care.

Aims

As a team, we decided to take a scheduled approach to reviewing the medication of all care home residents in Annandale & Eskdale. To do this, each of our technicians and clinical pharmacists were assigned to one or more of the 7 care homes across the region to carry out medication review. The approach taken was for an initial review to be carried out for each resident by a pharmacy technician, followed by an in-depth pharmacist review where required. These reviews took place in the care home setting alongside a designated carer. The aims of these reviews were to achieve the following:

- Ensure each patient's MAR chart correlated with their prescribed medications, removing items that were no longer required from both the MAR chart and the patient's record.
- Confirm there were no compliance issues or barriers to taking essential drug therapy and optimise medication where possible to ensure the most appropriate therapy for the patient's needs and reduce potential risk.
- De-prescribe medications no longer clinically indicated, or where risk outweighed potential benefit.
- Switch medications to formulary choice or more cost-effective preparations where appropriate.
- Add indications to medications and expand dosage instructions where needed to improve medicines safety.
- Reduce medicines waste.
- Ensure all monitoring (e.g. BP, weight, bloods) was up to date where appropriate.
- Escalate any concerns to an appropriate clinician where needed (e.g. CPN, GP, ANP).

Results and Discussion

To test the effectiveness of the of the proposed model for carrying out these medication reviews, initially this work was piloted in only one care home in the region. During this pilot a total of 50 residents were reviewed. Initially, this consisted of a medicine use review (MUR) carried out by a technician, followed by a clinical review by a pharmacist. However, mid-way through this pilot project further training was undertaken by our technicians to allow them to conduct a more in-depth medication review. In these cases, the pharmacist was only required to conduct a follow-up review where issues where highlighted that were beyond the competency of the technician to action. In all cases, any proposed changes to medication by the technician were discussed with a clinician before actioning. The changes achieved following the completion of these medication reviews are shown in Table 1 below.

Table 1 – Quantifiable changes made following pharmacy team care home medication reviews.

Action	No. of Patients	No. of Medications
Patients reviewed by pharmacy technician.	50	462
Patients requiring further review by a clinical pharmacist.	35*	330
Medications removed from repeat (no longer required).	31	56
Medications de-prescribed (no clinical need).	21	34
New medications prescribed due to identified need .	9	10
Medications moved from acute to repeat.	11	17
Amendments to medications to improve compliance (timings/preparations) or in line with formulary or prescribing guidelines.	24	39
Indications/dosages/directions changed to help improve care home service – e.g. Indications added for carer information.	41	287
Identification of need for updated monitoring e.g. Bloods	16	N/A
Other recorded actions – e.g. Advice given to staff re medicines use, discussion/escalation to GP/ANP/other service.	16	N/A

*This number may have been lower if technicians were undertaking full medication reviews from the start of the project.

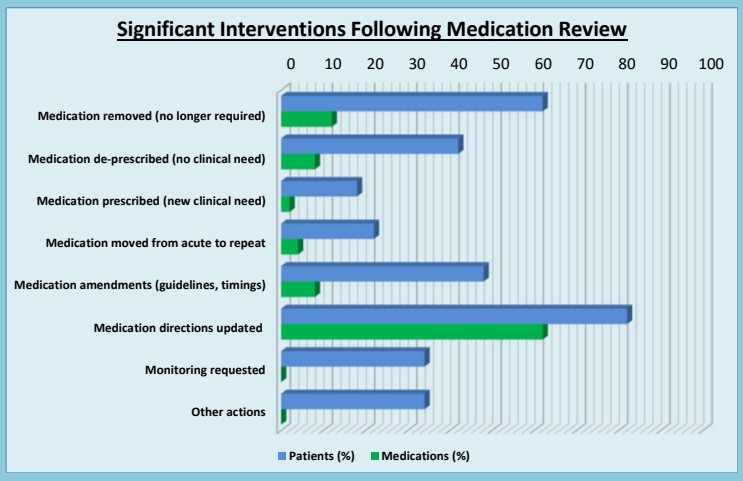

Figure 1 – Percentage change in both patients (blue) and total number of medications (green) as a result of interventions made following medication review by a pharmacy technician and/or pharmacist.

As Table 1 shows, 50 care home residents were reviewed in the pilot study, with 462 medications being reviewed in total. During this study, significant positive changes were made in terms of optimising medication and improving medicines safety.

As can be seen in Figure 1 above, over 60% of patients had items on their medication list that were no longer used or required, resulting in a subsequent 12% reduction in the overall number of prescribed medications before a clinical review was even required. Further non-clinical optimisation of medications included moving medications from acute to repeat where appropriate, and updating dosage instructions with more detail and/or treatment indication where required. Results show that 22% of residents had medications unnecessarily prescribed on an acute basis (comprising 4% of the reviewed medications overall). By moving these items to repeat, it has reduced the number of acute requests, thereby reducing GP surgery workload. Dosage instruction update was carried out for 62% of the medications reviewed (82% of patients). Feedback from the care home staff following this has been very positive as it has provided them with a better understanding of what each medication is used for, which will improve medicines safety.

One of the main aims in carrying out these medication reviews was to minimise risk to the patient while still ensuring clinically appropriate treatment. In order to do this, the goal was to de-prescribe medications in those where risk now outweighed benefit, to reduce tablet burden, and reduce anti-cholinergic burden where applicable. Remaining medication could then be optimised to ensure ideal compliance, safety and effectiveness. As mentioned, all 50 reviews were carried out initially by a technician and then more comprehensive polypharmacy reviews were then carried out by a pharmacist only where required. As Table 1 shows, 35 of the 50 residents were reviewed by a pharmacist for this care home, however this number would likely have been lower if technicians were doing full reviews from the start of the project.

It can be seen from Figure 1 that following review 42% of the patients had medications de-prescribed (8% of total no. medications) and 48% of patients had their medications amended in some way (e.g. timings optimised, dosages amended in line with guidelines, preparations changed to aid compliance). A smaller percentage of patients (18%) also had new medication prescribed following identification of a clinical need. Overall, these results show a significant reduction in medication burden for many of the residents , thus improving patient safety and also aiding cost-saving for the NHS.

Future Plans

- Pharmacy support workers to check for new residents and check stock cupboards for surplus/out of date medication every 3 months.
- Pharmacy technicians to check if reviews required for patients and carry these out every 6 months.
- Pharmacists to carry out reviews when escalated to by pharmacy technician.
- Extension of project to all care homes in Annandale & Eskdale.
- Future data extrapolation to establish effect of reviews on care home hospital admissions and/or contacts with GP surgery