Does Medication Review reduce the number of Falls-Risk-Inducing-Drugs (FRIDs) in Hospitalised Patients?

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Many elderly patients admitted to hospital are taking medicines that may increase falls risk, such as sedatives and anticholinergics.¹ Inappropriate polypharmacy should be avoided, given that the addition of each medication beyond a 4-medication regimen has been found to increase fall risk by 14%.²

**Aim**

To explore whether medication reviews undertaken at the Chelsea & Westminster Hospital (CWH) NHS Foundation Trust prior to discharge led to a reduction in the number of FRIDs in patients prescribed polypharmacy.

**Objectives**

- To find out how many patients admitted to CWH after a fall are prescribed polypharmacy.
- To find out how many of these patients have their medicines reviewed during the hospital stay.
- To find out how many of these reviews result in reduction in the FRIDs these patients are on.
- To use these findings to improve the review system to maximise benefit to these patients.

**Method**

A retrospective, single-centre cohort study of all patients aged 70 and over, admitted to CWH between 02-February and 02-Mar-2015 following a fall, was carried out. Patients prescribed polypharmacy (defined as > 5 medications) were identified. Medication reviews were observed during weekly falls/orthopaedic-focused ward rounds on care of the elderly wards. The team carrying out medication reviews consisted of a consultant, a nurse, a pharmacist and foundation doctors (MDT).

Data were recorded in MS Excel and analysed using Graphpad Prism6. Wilcoxon test was used to analyse for effects of medication reviews.

**Results**

128 patients were admitted after a fall, 90 of these patients were discharged with medicines in the study period.

**Falls-Risk-Inducing-Drugs (FRIDs) include**

- Anticholinergic drugs
- ACE inhibitors
- ARBs (e.g. losartan)
- Alpha blockers
- Antipsychotics
- Benzodiazepines
- Calcium Channel Blockers
- Long acting nitrates and Vasodilators used in HF
- Z-drugs e.g zopiclone

Mean reduction in FRIDs 0.65 (p<0.0001) per patient after multidisciplinary review

**Conclusions**

All patients admitted acutely with falls should have a full medication review by the multidisciplinary team, including pharmacists, prior to discharge.

Medication reviews can lead to a significant reduction in the number of FRIDs prescribed to patients on discharge, reducing the risk of subsequent falls.

While it may not be feasible to make long term changes to patients’ medications in the acute setting, making a record of their FRIDs can provide a valuable prompt to the teams who subsequently take over care. A structured medication review can later be conducted.

**Recommendations**

1. Equip clinicians to undertake medication reviews through education and provision of accessible review tools.
2. Increase pharmacist attendance on MDT ward rounds to prompt and support medication reviews.
3. Increase documentation of medication review in medical notes and on discharge summaries to improve communication about medicines at transfers of care.

**References:**


**Key Messages**

- Medicines reviews are essential for elderly patients who are at risk of falls/have fallen
- The focus should be deprescribing unnecessary medications, particularly FRIDs

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