



**Service Priorities and Programmes**  
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**Fall Prevention Focused Medication Review by Pharmacist in Tuen Mun Hospital**

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**Introduction**

Certain medicines have been shown to increase fall risk. Pharmacists, using their knowledge in pharmacology can contribute to fall prevention by optimizing the use of Fall Risk Increasing Drugs (FRIDs) and minimizing poly-pharmacy.

**Objectives**

(1)To optimize use of FRIDs (2) To minimize poly-pharmacy (3) To measure doctors acceptance rate toward pharmacist's recommendations

**Methodology**

This is a prospective descriptive study. A pharmacist performed fall focused medication reviews for in-patients at TMH in two medical & geriatric wards, over a period of 4 weeks in 2017. Patients age  $\geq$  90 or age  $\geq$  70 with Morse score  $\geq$  45 or on anti-coagulant with Morse score  $\geq$  45 were included if no exclusion criteria were met. The medicines they were taking on day 2 of admission were reviewed. Recommendations were made to the prescribers when clinically appropriate, through a Dear Doctor Note filed in patients folder for a maximum of 3 days, face to face discussion or phone contact with the prescriber. 3 individual clinical pharmacists would consider the clinical significance of the interventions made.

**Result**

A total of 333 patients were screened with 91 patients meeting the inclusion criteria. 36 patients (Male, N= 18) were mobile and managed to sign for consent to participate in the study. 94% (N= 34) of included patients were  $\geq$  70 of age and 56% (N= 20) were age  $\geq$  90. The male group had a higher Morse score overall comparing to the female group (Morse score median for Male= 50; Female= 32.5). Most interventions were delivered and accepted in face to face discussion with the prescribers. Drug related problems were identified in 15 patients medications with a total of 29 interventions

made. 16 of the interventions were accepted, 6 were rejected and 7 were incomplete due to early discharge or inability to contact doctor. About half of the interventions involved optimization of FRIDs use. Poly-pharmacy was found in majority of patients who were taking a median of 13 drugs. Poly-pharmacy could be minimized for 7 patients. The 3 pharmacists ranked majority of interventions as significant or somewhat significant.

Medication reviews allowed pharmacist to identify both fall related and other drug related problems. Pharmacists as part of a multidisciplinary team could prevent falls by optimizing FRIDs use and minimizing poly-pharmacy. Further work is needed to measure reduction in fall risk, fall rate and other drug related adverse events as benefits from medication reviews.