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The role of the pharmacy team in reducing readmissions: general medical patients eligible for NMS not found to be at increased risk of readmission

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Introduction

Around five per cent of hospital admissions are due to preventable adverse drug reactions [1]

There is little evidence of which medicines are associated with readmission

Prescription of cardiovascular medication at discharge has previously been identified as associated with readmission [2]

Over half of New Medicine Service (NMS) consultations involve antihypertensives, antiplatelets and anticoagulants [3]

Are patients who are eligible to receive the NMS at increased risk of readmission?

This may provide valuable motivation for hospital teams to make the referrals necessary for patients to receive the service

Objectives

As part of a project exploring whether prescription factors could be used to identify patients at risk of readmission, the purpose of this study was to determine whether prescription of new medicines on discharge, particularly prescriptions meeting the NMS criteria, were associated with an increased risk of readmission.

Method Included all Patients were adults discharged categorised home from the according to medical short whether they were readmitted stay units (SSUs) over 6 months or not Prescriptions Data were were categorised collected according to retrospectively whether they met Pearson's Chi from discharge the NMS criteria square and phi notes (TTOs) or not {3,4] coefficient using IBM **SPSS Statistics**

Referrals to the NMS were not routinely made by the Trust. Capacity to consent for and willingness to participate in the NMS was not assessed.

Results

TTOs were completed for 1407 patients discharged home from the Trust's SSUs during the study period. Two hundred thirty-three patients were readmitted and 42 patients died within 30 days. A small but statistically significant association with readmission was identified for patients prescribed at least one new medicine compared with patients not prescribed any new medicine, however no significant difference was identified when comparing patients whose prescriptions met the NMS criteria with those who were not eligible for the NMS. Table 1 details the results with according to prescription characteristics:

Table 1: New medicines, NMS eligibility, and readmissions

	NMS medicine	New medicine	All
Discharged & surviving 30 days	13%, 172 /1365	76%, 1040/1365	1365
Readmitted (compared to) Φ P V2	17%, 29/172 (17%, 204/1193) N/A >0.05	19%, 193/1040 (12%, 40/325) 0.071 0.009	17%, 233/1365
X ²	0.006	6.833	

Discussion/conclusion

The association of newly prescribed medicines with readmission demonstrates that pharmacists are ideally placed to identify patients at increased risk of readmission at the point of discharge, if not before. However, the finding that patients whose discharge prescriptions met the NMS criteria were not at increased risk of readmission indicates that they are not necessarily the patients secondary care need to prioritise in order to reduce readmissions.

It is acknowledged that the group identified as at increased risk of readmission accounted for the majority of patients, and as such further work is being undertaken to identify risk factors for patients not prescribed a new medicine, as well as to further refine the association for those who were. Data are being analysed according to therapeutic class with a view to identifying 'high-risk' medicines specific to readmission, which it is hoped will be useful to clinical pharmacists for identifying patients at increased risk of readmission in their routine practice.

References

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