University of Huddersfield Repository

Upton, Sarah, Culshaw, Margaret and Stephenson, John

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

Original Citation

Upton, Sarah, Culshaw, Margaret and Stephenson, John (2015) The role of the pharmacy team in reducing readmissions: general medical patients eligible for NMS not found to be at increased risk of readmission. In: GHP/UKCPA 11th Joint National Conference Lifting the Lid: Facing the difficulties of maintaining and enhancing standards, Friday 15th to Sunday 17th May 2015, Leeds, UK.

This version is available at http://eprints.hud.ac.uk/id/eprint/24825/

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.
The role of the pharmacy team in reducing readmissions: general medical patients eligible for NMS not found to be at increased risk of readmission

Sarah Upton a,b, Margaret Culshaw b, John Stephenson b

a Calderdale and Huddersfield NHS Foundation Trust, b University of Huddersfield

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 adults discharged home from the medical short stay units (SSUs) over 6 months

Patients were categorised according to whether they were readmitted or not

Prescriptions were categorised according to whether they met the NMS criteria or not [3,4]

Data were collected retrospectively from discharge notes (TTOs)

Pearson’s Chi square and phi coefficient using IBM SPSS Statistics 22

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>
<thead>
<tr>
<th>NMS medicine</th>
<th>New medicine</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharged &amp; surviving 30 days</td>
<td>13%, 172/1365</td>
<td>76%, 1040/1365</td>
</tr>
<tr>
<td>Readmitted (compared to)</td>
<td>17%, 29/172</td>
<td>19%, 193/1040</td>
</tr>
<tr>
<td>Φ</td>
<td>N/A</td>
<td>0.071</td>
</tr>
<tr>
<td>p</td>
<td>&gt;0.05</td>
<td>0.009</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>0.006</td>
<td>6.833</td>
</tr>
</tbody>
</table>

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


Table 1: New medicines, NMS eligibility, and readmissions

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.

Sarah.Upton@hud.ac.uk

University of Huddersfield

Calderdale and Huddersfield NHS Foundation Trust