Introduction

Medicines optimisation is about the safe and effective use of medicines to help people get the most from their medicine.1 The National Institute for Health and Care Excellence (NICE) guideline acknowledges that when people transfer between different care providers, such as at the time of hospital admission or discharge, there is a greater risk of poor communication and unintended changes to medicines. When people move from one care setting to another, between 30% and 70% of patients have an error or unintentional change to their medicines. Furthermore, there is international recognition that the transition of patients across care settings can lead to medication errors and patient harm.2 The process of discharge from hospital back to primary care can leave patients uncertain about their medication and ill-prepared to manage their care once home. The extent to which a patient’s medication may change from admission to discharge has been well described in the literature.3,4 Hence, patients who take medicines for long-term conditions often have changes made to their usual prescription during a stay in hospital. Though the ideal is that changes in the patient’s medication status throughout the hospital journey should be explained to the patient, documented, then transferred to the next healthcare provider at discharge, this does not always occur. After leaving hospital, GPs are expected to check and update a person’s list of medicines (medicines reconciliation) as soon as possible, but they may not always be able to speak to their patients as soon as required.

Discussion

In our patient cohort, being unable to contact the patient was the most common reason for rejecting a referral. Other reasons - time lapse since referral, patient in a care home - are also difficult to mitigate against, though we wish to improve the accuracy of the selection of the patient’s nominated pharmacy.

Conclusions

Rejections of ToC referrals are a missed potential opportunity for improved patient care. Our analysis has identified that there are currently few easy solutions that would enable us to reduce the proportion of referrals that are rejected.
for patients in primary care to provide additional advice and counselling, particularly on medication-related issues and the management of chronic conditions. Patients may be discharged from hospital without a review by a pharmacist or without medication counselling. Community pharmacists are best placed to counsel patients on new/changed medications in a setting they are most comfortable in and also provide that additional medication reconciliation for safety purposes. Hence community pharmacy teams can potentially contribute to minimising this risk for patients discharged from secondary care services, and a number of studies have described how community pharmacists can participate in medicines optimisation for patients moving from the hospital to home. Such interventions have included contacting community pharmacists to update them on medication changes between admission and discharge.5,6,7

One meta-analysis indicates that a pharmacist-led comprehensive medication reconciliation programmes including telephone follow-up/home visit, patient counselling or both at hospital transitions is effective at improving post-hospital healthcare utilisation.8 There is also evidence that interventions including a community pharmacist (CP) can improve drug related problems after discharge.9,10

The transfer of care (ToC) service at our 750 bed teaching district general hospital in Cornwall was introduced subsequent to national guidance.11 Our service is built on the PharmOutcomes™ software, originally designed to support the collection of information about community pharmacy activity but utilised to facilitate a secure method of electronic transfer of information related to medicines between hospital and community pharmacies. At discharge from hospital, the community pharmacy nominated by the patient during the admissions reconciliation process receives an email to notify them of a referral and is able to log in securely to view the details. Community pharmacists have the choice of either ‘accepting’ or ‘rejecting’ the referral sent from the hospital. Accepting a referral should lead to the CP contacting the patient to arrange follow-up, with records made of the action taken. A referral can be rejected if appropriate after opening the patient information on PharmOutcomes™. A reason for rejection must be provided and rejected messages will not send without a reason being entered as text. This ToC service is not a remunerated service for the CP, though patients may be eligible for a medicines use review or a new medicines service. A recent evaluation of the service showed it to be widely valued and demonstrate a range of patient, hospital pharmacist, CP and system impacts.12

A study using PharmOutcomes™ for a ToC service in North East England in 2014/15 reported that of the total 2,029 referrals, 45.3% (n=955) were rejected by the community pharmacy, with the most highly reported reason for rejection of referrals was that the patient was uncontactable (35.1%, n=138). As the ToC interventions from community pharmacists participating in our service may result in potentially useful outcomes for patients, the objective of this analysis was to ascertain reasons for pharmacies rejecting our referrals, with the aim of decreasing that proportion if possible.

Method

The ToC service at Royal Cornwall Hospitals NHS Trusts has been using the integrated PharmOutcomes™ platform for nearly 2 years. Currently, in excess of 250 discharge referrals to community pharmacies are made each month. Data were extracted from PharmOutcomes™ (Pharmacy Referral follow-up report) for 6 months commencing January 2018 on 16 August 2018 and analysed using Microsoft Excel. Free text reasons for rejecting the referral were categorised manually by the author into major themes.

Table 1: Categories of reasons for rejection (n = 363)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot contact patient</td>
<td>129</td>
<td>35.5%</td>
</tr>
<tr>
<td>Too long a time lapse since referral</td>
<td>39</td>
<td>10.7%</td>
</tr>
<tr>
<td>Patient readmitted/transferred to hospital</td>
<td>36</td>
<td>9.9%</td>
</tr>
<tr>
<td>Patient now in a care home</td>
<td>35</td>
<td>9.6%</td>
</tr>
<tr>
<td>Other reason</td>
<td>22</td>
<td>6.1%</td>
</tr>
<tr>
<td>Internal pharmacy issues</td>
<td>25</td>
<td>6.9%</td>
</tr>
<tr>
<td>Incorrect pharmacy</td>
<td>29</td>
<td>8.0%</td>
</tr>
<tr>
<td>No changes to regular medicines</td>
<td>24</td>
<td>6.6%</td>
</tr>
<tr>
<td>Patient deceased</td>
<td>18</td>
<td>5.0%</td>
</tr>
<tr>
<td>Previous referral acted upon</td>
<td>6</td>
<td>1.7%</td>
</tr>
</tbody>
</table>
Results

During the period January to June 2018 there were 1,562 patient referrals (mean age 72.5 years, 48.1% female) provided to 85 pharmacies. This was a mean of 18.4 referrals per pharmacy (range 1 to 62). Of these total referrals, 363/1,562 (23.2%) were rejected (see Table 1). The mean age for rejected referrals was 72.6 years and 48.8% were females. These rejections originated from 53 pharmacies. There were 1,135 referrals across this subset of 53 pharmacies, and the mean number of rejections per pharmacy was 6.8 (range 1 to 23). For those pharmacies that recorded a rejection, the proportion of referrals that were rejected ranged from 6.1% to 85.7% (mean of 40%). Thirty-two pharmacies had no rejections recorded on the system.

Discussion

This analysis has shown that the most common reason for rejecting a referral was due to the community pharmacy being unable to contact the patient. This broad heading of ‘cannot contact patient’ included free text that described patients not answering the phone despite the pharmacist calling on several occasions, as well as a small number of instances of the phone number being incorrect.

The 35 instances of ‘patient now in a care home’ illustrate a deficiency in the functionality of our hospital electronic referral system in that the hospital is currently unable to advise the patient’s nominated CP that the patient has been admitted straight into a care home rather than returning to a patient’s address familiar to the CP. The care home may even be in a very different part of the county and not close to the community

“... our hospital electronic referral system... is currently unable to advise the patient’s nominated CP that the patient has been admitted straight into a care home...”
pharmacy. Likewise, at the time of this analysis, the hospital was unable to prevent referrals for patients who had died in hospital. If the patient had provided consent to ToC, even though the patient subsequently died, the system would ‘discharge’ the patient and a ToC message to the CP would be sent.

The 29 instances of ‘incorrect pharmacy’ appear to be caused by the patient nominating the wrong pharmacy when consent for the ToC service is sought at admission to hospital. Our service currently does not involve the pharmacy team showing to the patient a map of the pharmacies in a particular geography on a mobile device to clarify which is the nominated pharmacy as can happen in the Refer-to-Pharmacy scheme in the North West.14

There were 39 instances of ‘too long a time lapse since referral’. In addition, 21 of the 25 ‘internal pharmacy issue’ reasons was a single pharmacy that had entered free text of ‘unable to complete in time due to other pharmacy pressures’. We are unable to comment on these reasons for rejection other than to note that pressures, including environment and workload challenges, have been recognised as challenges to service delivery for the medicines use review service,15 and similar challenges may apply to providing a non-remunerated ToC service.

The published literature relating to this topic (i.e. why community pharmacies do not action these types of referrals from hospital) is limited. The evaluation of the ToC service from the North East, which also uses PharmOutcomes, reported that the patient was uncontactable for 35.1% of rejections (compared to our 35.5% figure), wrong pharmacy for 12.3% (compared to our 8.0% figure), patient readmitted for 5.4% (compared to our 9.9% figure), and patient deceased for 1.3% (compared to our 5.0% figure). Some of the differences - our higher rates of readmission rejections and patient deceased rejections - may be due to our overall patient cohort consented for ToC being an older population. We had 64.3% (1,004/1,562 patients) aged 70 and over compared to 45.8% in the North East study. Though our rejection rate of 8.0% for the referral having been sent to a pharmacy which was not routinely used by the patient was lower than the North East study of 12.4%, we agree with Nazar and colleagues that improvements in the design of the service may mitigate against these rejections. Indeed, PharmOutcomes have attempted to provide some functionality to the service so that rejections can be returned from the community pharmacy to the hospital for onward transmission to another pharmacy, though how this will actually operate if the hospital pharmacy does not know the correct pharmacy is unclear.

Even in the setting of a randomised trial investigating the effect of sending patients’ hospital discharge letters to their nominated community pharmacists, 6 out of 33 patients were lost to follow-up within 3 weeks of discharge - 4 uncontactable and 2 readmitted to hospital.16 A more targeted small scale ‘discharge Medicines Use Review’ (dMUR) service in which 30 patients were recruited for referral to the community pharmacy reported that 10 of these patients failed to receive a dMUR with the most common reason for non-completion at 4 weeks was they were not contactable or were unable to visit the pharmacy.17 In the Welsh dMUR service, though somewhat different to the ToC service described above, it was found that only 0.7% of potential DMRs commissioned were undertaken over four years and that, on average, 25% of eligible pharmacies claimed for a DMR each month.18

As more health communities look to introduce a ToC service, there will be potential learning emerging from other sites. Of relevance is the ‘Connect with Pharmacy’ programme in the North East where 95% of 4,719 referrals had been accepted, meaning rejections represent a small proportion of the referrals, though the actual referral system and process differs between Cornwall and this North East geography.19

Based on our experience, we recommend the following when health systems – community and hospital pharmacy teams, Local Pharmaceutical Committee (LPC), and Clinical Commissioning Group Prescribing Teams – want to improve the communication process for a transfer of care service:

- Involve the LPC as they are critical in emphasising to community pharmacy that this service contributes to patient safety, improved patient experience, links hospital and community pharmacy together, and is of benefit to the wider health system.
- Revisit community pharmacy engagement with a reminder, especially to those with relatively large numbers of rejections and those with outstanding referrals, that this is a valued service and ask how their internal pharmacy processes can be supported.
- Feedback regularly to Trust pharmacists, community pharmacy and the LPC on the success of the service (e.g. individual patient stories) and aim to resolve any difficulties over the selection process of the patient’s nominated pharmacy.

Conclusion

Community pharmacists have a potentially important role when patients transition or transfer from hospital to home. Such a service depends on the CP accepting and acting on referrals from the hospital. There are a number of reasons why CPs may be unable to accept a referral and our analysis has identified that there are currently few easy solutions that would enable us to reduce the proportion of our referrals that are rejected.

Declaration of interests

The authors have nothing to declare.
“Community pharmacists have a potentially important role when patients transition or transfer from hospital to home.”

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1. NICE NG5. Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes. 2015. Available at: https://www.nice.org.uk/guidance/ng5/chapter/introduction


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