

# Electronic Referral from Hospital to Community Pharmacy

## Introduction

Patients discharged from hospital on new prescription medicines or altered regimens are at increased risk of being readmitted. Around four to five per cent of hospital admissions are due to preventable problems with medicines.<sup>1</sup> Community pharmacy can support people post-discharge by working with hospital colleagues to deliver the New Medicine Service (NMS) and Medicines Use Reviews (MURs) consultations. An aim of both these schemes is to ensure patients get the maximum benefit from their medicines when they are in hospital and when they return home from this setting. In addition any issues with doses, side effects or drug interactions can be dealt with in a timely fashion.

The NMS and targeted MURs can support patients who have recently been discharged from hospital and can help to improve the transfer of care between the hospital and community setting.

## The New Medicine Service

The NMS has been shown to improve medicines adherence by 10%<sup>2</sup> in patients who have been newly prescribed a medicine in one of the following conditions/therapy areas:

- Asthma and COPD
- Type 2 diabetes
- Antiplatelet/anticoagulant therapy
- Hypertension

In addition to providing early support to patients to maximise the benefits of their new medicine it is hoped that the NMS will also lead to:

- Reduction in medicines waste
- Reduction in hospital admissions due to medicines associated adverse events
- Increased patient engagement and understanding

The medicines selected for inclusion in the NMS are those that are listed in relevant chapters/sub-sections of the current edition of the British National Formulary. If a patient is newly prescribed one of these medicines they are eligible to receive the service.

The NMS is split into three stages:

### 1. Patient engagement

Following the prescribing of a new medicine covered by the service, patients may be referred to the service by the prescriber or recruited opportunistically by the community pharmacy. If the medicine was prescribed and dispensed while the patient was in hospital (either as an inpatient or outpatient) and the treatment will continue when they are no longer at the hospital, the patient must be referred to the community pharmacy by a healthcare professional at the hospital in order to receive the NMS. In this case the community pharmacy does not need to dispense the patient's first prescription to provide the service.

### 2. Intervention

The intervention, which takes the form of a structured consultation, will typically take place between 7 and 14 days after patient engagement at an agreed time with the patient, either face to face or by telephone.

The pharmacist's interview schedule facilitates assessment of the patient's adherence, identifies problems, and the patient's need for further information and support that the pharmacist will provide where appropriate.

### 3. Follow up

The pharmacist will follow up with another structured consultation 14 to 21 days after the first intervention, face to face or by telephone, to discuss how the patient is getting on with their medicine. They will provide advice if required.

### Medicines Use Reviews

These take the form of a single structured consultation with a patient. There are several cohorts of patients targeted with MURs including those patients discharged from hospital who are eligible for a post-discharge MUR. In NHS Wales these are called Discharge Medication Reviews (DMR) and a recent analysis of this scheme found a three-fold return in investment through two main outcomes:<sup>3</sup>

- Reduction in wasted medicines
- Reduction in hospital readmissions

### Keeping patients safe when they transfer between care providers

It is widely accepted that when patients move between care providers the risk of miscommunication and unintended changes to medicines is a significant problem. It has been reported that between 30 and 70 per cent of patients have either an error or an unintentional change to their medicines when their care is transferred.<sup>4</sup>

Getting the transfer of medicines information right can be challenging as patients follow complex pathways and systems vary between providers. However, greater collaboration between professionals can make a difference to patient safety - especially between hospital and community pharmacists; indeed NICE recommend this in their Medicines Optimisation guidance (NG5)<sup>4</sup> and the Royal Pharmaceutical Society has developed a toolkit to aid spread of the concept.<sup>5</sup>

The NMS and targeted MURs support the transfer of care for patients discharged from hospital. Community pharmacists are well placed to provide targeted support to patients in the post-discharge period and ensure that patients understand the medicines they have been prescribed, why they should be taking them and how to take their medicines correctly.

There are several schemes which attempt to refer patients from a hospital environment to the community setting. Some involve referral of patients by telephone or fax to a hospital patient discharge follow-up service for those with complex medication needs. These services are not available to all patients and are labour-intensive using specialist community based teams.

A system that enables transfer to a community pharmacy should support an equitable, accessible service aligned to new models of care and support the needs of both patients and the wider health economy, and engage with patients to be active participants in consultations. The goal remains making this referral simple, quick, electronic, useful, timely and as fully automated as possible; and the higher the number of patients referred ensures the greater opportunity to reduce hospital readmissions and medicines waste.

### Available schemes

There are two processes available to directly refer patients to their community pharmacy of choice once consent has been gained in hospital prior to discharge. The schemes are:

**PharmOutcomes:** [www.pharmoutcomes.org/pharmoutcomes/](http://www.pharmoutcomes.org/pharmoutcomes/)

**Refer-to-Pharmacy:** East Lancashire Hospitals NHS Trust /Webstar-Health [www.elht.nhs.uk/refer](http://www.elht.nhs.uk/refer)

Both have been reviewed as part of a process to support informed decision making for health economies interested in implementing electronic discharge from hospital to community pharmacy.

### PharmOutcomes

This is a web-based system, which helps community pharmacies provide services more effectively, making it easier for commissioners to audit and manage outputs. One example of the work this organisation offers is highlighted by the Portsmouth Men's Health scheme. The Healthy Living Pharmacies in the area have been commissioned to provide advice and signposting for this group of citizens. Progress is easily captured and shared with commissioners via the PharmOutcomes system.

The organisation has recently developed a webpage to transfer information about patients from hospital to community pharmacy. The e-form used requires manual data input and is completed after patient discharge, with e-form completion taking several minutes. In addition the patients discharge letter is *not* available to the community pharmacist. Patients are asked by staff '*as part of their care may we share*

*changes to your medicines with your community pharmacist*. The benefit of this system is that most community pharmacies have an account with PharmOutcomes so set up costs will be minimal but need to be balanced against the time pressures and cost of manual input of information at the hospital.

## Refer-to-Pharmacy

The Refer-to-Pharmacy solution is a fully automated system which is integrated with the Trust's IT systems. Patients eligible for an NMS/MUR consultation-referral may be identified and referred at any point during their hospital stay. Upon discharge Refer-to-Pharmacy automatically notifies the patient's community pharmacy and allows the pharmacist to view the patient's discharge letter securely. This enables the community pharmacist to view relevant clinical details, understand the context of any medication changes and provide appropriate care and advice. The system also supports information-referrals from the point of admission enabling an early alert to halt the dispensing process until further notice for care home patients and those using blister-packed Monitored Dosage Systems (MDS). This feature has the potential to reduce wastage of medicines as well as saving community pharmacists time. Referrals may also be made to domiciliary pharmacy teams (CCG and Trust teams), outside of the community pharmacy network, for home visits to housebound patients. The procedure for referral is embedded into the day to day work of the ward pharmacy team; referrals are made in seconds making it feasible to refer high numbers of patients. Patients for consultation referrals are shown a film on their bedside TV explaining the benefits of referral to community pharmacy, so they are informed and willing participants in the process.

Refer-to-Pharmacy's integration with Trust IT systems means that there is no need to re-enter the patient's data, this is pulled from the Trust's Patient Administration Systems (PAS) reducing the time it takes to make a referral. This also allows the referral processes to be automated meaning that the referral and discharge letter can be sent automatically when the patient is discharged. Because the system is integrated it is also able to alert the hospital user when a patient has been discharged without a completed discharge letter. This ensures the patient's GP receives a completed discharge summary. It is estimated approximately 5% of patients don't have a discharge letter completed and sent to their GP; another benefit of the system.

Refer-to-Pharmacy requires an interface to the Trust's IT systems in order to send and receive information relating to patients and their transfer of care. The interface uses common standards for Trust IT systems, but some local customisation is required to provide an interface to a specific Trust's IT systems. The costs to do so will be dependent on the level of customisation required. Depending on local requirements there may also be costs associated with hosting the Trust's data within N3. This is subject to server capacity within the Trust. To determine costs to an individual Trust a scoping conversation is required with Webstar.

## Conclusions

This first top line review of the systems provides an insight to the features and benefits of both. These are captured in the table below. Additional review of set up costs and quantitative and qualitative analysis of outcomes will be required to gain a complete picture.

| Key Differentiators   | Refer-to-Pharmacy | PharmOutcomes |
|---|-------------------|---------------|
| Electronic transfer of information to the patient's community pharmacy  | ✓                 | ✓             |
| Automated completion of information from hospital patient administration system.  | ✓                 | ✗             |
| Automated transfer of information, including discharge summary on discharge   | ✓                 | ✗             |
| Chosen Pharmacy informed whilst patient is in, or on admission to, hospital so MDS drugs are not continued to be dispensed – <b>impact on waste</b> | ✓                 | ✗             |
| Full discharge summary available to Community Pharmacist  | ✓                 | ✗             |
| Work across CCG boundaries i.e. transfer of care to any pharmacy irrespective of location to Trust  | ✓                 | ✓             |
| Identify patients who have been discharged without a discharge letter – <b>impact on safe transfer of care</b>                                      | ✓                 | ✗             |
| Transfer information to non-community pharmacy locations e.g. domiciliary medicines management teams, primary care pharmacists                      | ✓                 | ✓             |

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## References

- <sup>1</sup> National Patient Safety Agency and National Institute for Health and Clinical Excellence (2007). *Technical patient safety solutions for medicines reconciliation on admission of adults to hospital*.
- <sup>2</sup> Elliott RA, et al. (2014). Department of Health Policy Research Programme Project. *Understanding and Appraising the New Medicines Service in the NHS in England* (029/0124). Available online: [www.nottingham.ac.uk/~pazmjb/nms/downloads/report/files/assets/basichtml/index.html#1](http://www.nottingham.ac.uk/~pazmjb/nms/downloads/report/files/assets/basichtml/index.html#1)
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- <sup>4</sup> National Institute of Health and Care Excellence (2015). *Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes*. Available online: [www.nice.org.uk/guidance/ng5](http://www.nice.org.uk/guidance/ng5).
- <sup>5</sup> Royal Pharmaceutical Society (2014). *Hospital referral to community pharmacy: An innovators' toolkit to support the NHS in England*. Available online: [www.rpharms.com/referraltoolkit](http://www.rpharms.com/referraltoolkit).

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