Toolkit

ROYAL PHARMACEUTICAL SOCIETY




Hospital referral to community pharmacy:

An innovators' toolkit to support the NHS in England

December 2014

Produced by the RPS Innovators' Forum

Endorsed by:

Royal College of Physicians

FOREWORD

There is a substantial body of evidence that shows when patients move between care providers the risk of miscommunication and unintended changes to medicines remains a significant problem.

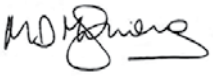
Patients with long-term conditions will invariably be prescribed at least one medicine. Many patients, particularly those with two or more long-term conditions, can find themselves being prescribed 10 or more medicines. We need to improve the current systems and processes to ensure patients are supported to get the best possible care to improve communication, safety and effective care.

We are now at the point where technology is starting to allow some of these issues to be addressed in ways that were not previously possible. For instance, access to the summary care record (SCR) or electronic discharge summaries starts to open up the possibilities for ensuring that the principles of medicines optimisation are supported and benefit patients.

The system options outlined in this toolkit facilitates referral of patients from their hospital bedside to their community pharmacist either for some sort of pharmaceutical consultation post-discharge, or to ensure changes to a person's medicines are known and acted upon in order to improve medicines safety and efficacy when they return to their home.

This toolkit is designed to aid commissioners and pharmacy leaders in health economies to make a case for change and to implement a referral system. The electronic solutions described are not just 'plug-ins' but form part of a system wide behavioural change affecting both hospital and community pharmacy teams.

I hope that you find the content useful and you are inspired to roll out a solution in your locality. We need to create a movement around pharmacy referrals from hospital to community-based pharmacy services; it should become the zeitgeist with professionals demanding it and patients expecting it. It should be part of delivering high quality care safely, effectively and with a positive experience.



DR MARTIN MCSHANE
Director (Domain 2) Improving the quality of life for people with Long-Term Conditions, NHS England

FOREWORD

In 2013 I chaired the Royal Pharmaceutical Society (RPS) commission that published *Now or Never: Shaping pharmacy for the future*.[1] This report examined new models of care delivered through pharmacy, and considered why it is that such exemplars remain largely the exception and not the rule.

One of the recommendations we made was that the Royal Pharmaceutical Society should support local leaders implementing new ideas in pharmacy. This has led to the establishment of the Innovators' Forum, supported by Professor Clare Anderson and Dr Mahendra Patel. The Forum brings together pharmacists from around the country who are leading innovative models of care.

The Forum decided to focus on one of the innovations discussed in *Now or Never. Refer-to-Pharmacy* facilitates electronic referral of patients' medicines information from their hospital bedside to their local community pharmacist, including sharing a copy of their discharge letter and prescription. Not only does this improve medicines safety at home by ensuring changes to a person's medicines are known by their local pharmacist, it also enables pharmaceutical consultations in the community.

The first output from the Forum is this toolkit, which aims to transfer lessons and methods from early implementers of Refer-to-Pharmacy across the profession. Importantly, the toolkit highlights ways of making full use of technology, and linking hospital care with that provided by local community pharmacies.

If pharmacy is to fulfil its potential as a care-giving profession that is a fully connected partner in local health and social care networks, the role of local leaders who can drive change with resilience is vital. Having a toolkit such as this is just a first – albeit important – step. Its significance will be unlocked only if it helps local pharmacy leaders to be able to put new models of care into practice, negotiating with commissioners, clinical colleagues, patients and the public.

It is my sincere hope that this toolkit does just that – acting as a catalyst to local pharmacy leaders to get on and deliver safer, better co-ordinated discharge of patients home from hospital.

DR JUDITH SMITH

Director of Policy at the Nuffield Trust

[1] *Smith J, Picton C, Dayan M. NOW OR NEVER: shaping pharmacy for the future. London, Royal Pharmaceutical Society, 2013. Available at: http://www.rpharms.com/promoting-pharmacy-pdfs/moc-report-full.pdf*

CONTENTS

Foreword 2

Foreword 3

Executive Summary 5

PART 1: MAKING THE CASE FOR CHANGE 6

What is the problem? 6
What are the issues for patients about medicines on discharge? 6
How can pharmacy help? 7
Identifying the most suitable way of ensuring community pharmacists know about hospital discharges for your locality 7
Examples of referral systems in practice 9
Developing a business case 9
Benefits of referrals for individuals 10

PART 2: MAKING IT HAPPEN 11

The basic requirements of an e-referral system 11
How can I implement this? 11
What are the commissioning implications? 12
How can local patient and public engagement (PPE) be obtained? 12
Identifying eligible patients for referral 12
Preparing to receive referrals 13
Communication plan and dissemination 13
Ensuring quality of information 14
Additional information to include in a referral 14

CHECKLIST FOR IMPLEMENTING AN ELECTRONIC REFERRAL SYSTEM 15

Acknowledgements 17

Appendix 1: Case Studies: *Refer-to-Pharmacy, PharmOutcomes*, Help for HARRY 18

References 20

EXECUTIVE SUMMARY

The Royal Pharmaceutical Society (RPS) believes that patients in hospital should be routinely referred to their community pharmacist for post-discharge support with their medicines. Community pharmacists can support patients to ensure that they get the best from their medicines by providing services such as the new medicines service (NMS) and post-discharge medicines use review (MURs), and by updating their patient medication records (PMRs) with any changes to medicines. Ideally, referrals between hospital and community pharmacies should be made electronically, and where discharge letters are electronically produced in hospital, community pharmacists should have access to these as part of the referral process. All health economies can take action on referrals, with or without electronic communication.

The RPS Professional Standards for Hospital Pharmacy Services[1] require that "patients experience an uninterrupted supply of medicines when they move care settings and the health and (where relevant) social care teams taking over their care receive accurate and timely information about the patient's medicines" (Standard 3). The fundamental cornerstone of transfer of accurate medicines information is laid out in the RPS guidance '*Keeping patients safe when they transfer between care providers: Getting the medicines right*'.[2]

Recent work from a secondary care perspective, in the form of the Royal College of Physicians' *Future Hospital: Caring for medical patients*,[3] has made similar recommendations about the need for medical professionals to work closely together and to deliver care as close to patients as possible.

Evidence from research into community pharmacy post-discharge medicines services has demonstrated significant increases in medicines adherence, leading to improved health outcomes for patients and fewer admissions and re-admissions to hospital.[4]

This toolkit is intended to aid decision makers in health economies to make a case for change and support them to implement a referral system. Chief Pharmacists of Trusts and Heads of Medicines Optimisation / Management in clinical commissioning groups (CCGs) are the prime recipients of this document to take action and scope what needs to be done locally. Representation from across all sectors of pharmacy is essential and will be required at a very early stage. Local Professional Networks (LPNs), Local Practice Forums (LPFs) and Local Pharmaceutical Committees (LPCs), all have a role to play.

The toolkit is divided into two parts:

- Part one: *Making the case for change*; provides evidence to support the arguments and business case to implement a referral system;
- Part two: *Making it happen*; gives practical advice, examples on how to implement an effective electronic referral system and three case studies.

A checklist summarising both parts can be found at the end.

It is important for the whole of the pharmacy workforce to understand the importance to patient care of a referrals system at grassroots level. Such referrals can deliver benefits to both individual patients and to the health economy. Improving patient and carer awareness of the benefit the services community pharmacists can offer post-discharge will ultimately result in patients and / or their carers simply expecting or requesting to be referred. Local pathways, promotional campaigns and the use of social media should be considered.

A web page has been developed to support this toolkit, which can be found at **www.rpharms.com/referraltoolkit**. All appendices after Appendix 1 in this document have been sited there as well as other resources and links that have been developed to aid the spread of referral systems. More resources will be added over time.

PART 1: MAKING THE CASE FOR CHANGE

What is the problem?

The potential of community pharmacists to improve patient safety at the point of hospital discharge is not currently being taken up.

30 to 50% of patients don't take their medicines as intended.[2] This has consequences to their quality of life and may result in unnecessary illness or admission to hospital.

There are more than 13 million hospital admissions in England each year. This number is growing and with the average cost of a non-elective admission estimated to be £1,739,[5] the pressure on health economies is great. It has been widely reported that between 30 and 70% of patients have either an error or unintentional change to their medicines when their care is transferred.[6] More recent studies corroborate these findings and have demonstrated there are 1.3 unintended discrepancies for every medicines reconciliation completed by a non-pharmacy member of staff[7] and two-thirds of discharge summary letters are inaccurate or incomplete prior to pharmacy screening.[8]

Unintended discrepancies in patients' medicines after discharge from hospital affect up to 87% of patients, and medicines-related problems after hospital discharge are associated with potential and actual adverse health consequences, many of which are preventable.[9] NHS England published a patient safety alert in August 2014 on the risks arising from breakdown and failure to act on communication during handover, particularly at the time of discharge from secondary care, and many of the cited examples related to problems with medicines which pharmacists can help resolve or avert.[10]

At the point of a patient's discharge most hospitals' policies mandate that a discharge summary, including a current medicine list, is sent to their GP within 24 hours of leaving hospital; however, there is currently no national robust mechanism to share this information with a patient's community pharmacist. The RPS Professional Standards for Hospital Pharmacy Services[1] states that *"The pharmacy team provides the leadership, systems support and expertise to enable the organisation to transfer information about patients' medicines to the professional(s) taking over care of the patient (e.g. general practitioner, community pharmacist, or care home or domiciliary care agency staff)"*.

Community pharmacists can help people get the best from their medicines and make sure that changes made to their medicines whilst in hospital are appropriately recorded and not unintentionally changed back. Community pharmacists have no easy means of identifying if one of their patients is in, or has recently been discharged from hospital. Of the millions of hospital admissions in England throughout 2013, very few people had a post-discharge MUR with their community pharmacist. Data from Lancashire, for example, shows that only 0.14% of the 365,200 hospital admissions in 2013/14 resulted in a post-discharge MUR.

One study found that community pharmacists rarely received post-discharge information and when they did it was mainly for patients where the hospital perceived the patient's medicines issues as "complex". Practice was found to be inconsistent overall and the authors suggested that the potential of community pharmacists to improve patient safety after discharge from hospital is not being utilised.[11]

We all want our patients to get the best from their medicines and to stay healthy at home; we do not want medicines used inappropriately or wasted; yet up to £300 million of medicines are wasted each year and half of this waste could be avoided.[12]

What are the issues for patients about medicines on discharge?

In 2013 the Care Quality Commission survey found that 75% of patients (*N* = 62,400) said that a member of staff "completely" explained the purpose of medicines they were to take home in a way they could understand. However, only 39% said that a member of staff "completely" told them about the medicine side effects to watch out for when they went home.[13]

Visiting their community pharmacist post-discharge closes this loop for many patients. However, it should be noted that some people cannot physically access their community pharmacy and around the country solutions such as domiciliary or tele-consultation MURs by community pharmacists have been implemented.

Research in West Yorkshire illustrates this:

"I had an issue a few weeks ago where a patient was discharged. They were a repeat dispensing patient and their medicines were stopped whilst they were in hospital. No-one let the community pharmacy know and they supplied the medicine when the patient was discharged. The patient did not know the medicine had been stopped either. They were re-admitted to hospital."
Hospital Pharmacist, West Yorkshire.

"A patient was admitted to hospital with low blood pressure. When I reviewed (reconciled) the medicines the patient brought in with them, there were two boxes of the same blood pressure medicine in different packaging. After a recent hospital admission the patient had been discharged with a box of the medicine but because it looked different to the box they received from their community pharmacy the patient thought they were different and had been taking them both at home. This was an unnecessary readmission that could have been avoided if healthcare professionals had communicated more effectively with the patient and each other."
Pharmacist, Teaching Hospital.

How can pharmacy help?

Research shows that medicines-related problems after discharge from hospital can be addressed by more systematic involvement of community pharmacists.[14,15] However, it is extremely difficult for community pharmacists to identify such patients within a few days of leaving hospital when these services can make a difference. The RPS Professional Standards for Hospital Pharmacy Services[1] recommend that when care is transferred to another setting, patients are referred or signposted to appropriate follow-up or support. In terms of medicines use and safety, the most vulnerable patients are often those being discharged from hospital.

MURs and NMS are nationally commissioned services via the Community Pharmacy Contractual Framework and there is evidence that medicines consultations or usage reviews after discharge improve adherence and patient safety as well as being highly cost effective:

- The New Medicine Service (NMS), available to patients within the first month of starting certain medicines for long-term conditions, improves medicines adherence by 10%.[4] The conditions currently covered by the scheme are: hypertension, type 2 diabetes, chronic obstructive pulmonary disease (COPD), asthma and patients requiring anticoagulants or antiplatelets. Medicines adherence i.e. taking medicines as agreed between the patient and prescriber really matters; for instance, someone not taking their antihypertensives regularly can lead to stroke and lower quality of life because of uncontrolled hypertension.
- Post-discharge Medicines Use Reviews (DMRs or dMURs) by community pharmacists are available to those patients whose medicines have been changed while in hospital and have also demonstrated improved adherence; for every £1 spent by the health economy administering the scheme it avoids £3 of NHS resources being spent on A&E attendances, hospital admissions and drug wastage.[9]

Likely demand will vary from hospital to hospital depending on the dynamics of the health economy, but to give an example, if a Trust discharges about 150 patients per day, just over half of these patients will be eligible for, and could benefit from, either a NMS, an MUR or an information transfer request (e.g. changes to blister packs or care home residents' medicines); if there were 150 community pharmacies in the locality this would translate to approximately 1–2 referrals every 2 to 3 days which is a manageable workload, especially considering such consultations with patients are made at a mutually agreeable time.

Around the country there are examples of innovation of community or primary care led pharmacy initiatives in areas such as care homes and domiciliary visits. The relevant virtual networks of the RPS are a good way to keep up to date about what is happening elsewhere in the country.[16]

Identifying the most suitable way of ensuring community pharmacists know about hospital discharges for your locality

There is considerable scope for hospitals to refer patients to their community pharmacy for follow-up about their medicines. Increasing the number of patients referred is crucial if the benefits of community pharmacy input to patient care and medicines use are to be accrued. The objective of any solution should be to remove the barriers to referral, to maximise the opportunities arising from appropriate referrals and to make referrals on a large scale. Any attempt to facilitate referral to community pharmacy is to be encouraged but there are advantages and disadvantages to each of the possible methods which need considering when developing your local approach. The main methods of referral currently used are:

SIGNPOSTING

This is the most basic method. Patients are encouraged to see their community pharmacist and may be given an explanatory leaflet. Patients are also encouraged to show their discharge medicines list to their community pharmacist. This solution requires very little infrastructure and investment to implement. It does require time from hospital staff to inform and discuss the benefits with patients. The engagement of the patient is essential to the success of this approach as the patient is responsible for 'delivering' the referral and for transferring the information required. Experience from those areas where hospitals have tried signposting shows that patients rarely take up this opportunity after discharge[17] and this was corroborated from many sources in the development of this toolkit. Signposting is not currently working effectively. This may be because community pharmacy services have not been actively publicised or endorsed by NHS staff in hospitals and primary care. As a result many patients have not yet understood the concept for these referrals or the benefits and do not adopt the behavioural change necessary to visit their community pharmacy to seek help.

PHONE AND FAX REFERRAL

Here the hospital takes responsibility for transferring the discharge medicines information to the patient's choice of pharmacy, either by phone or fax. This means that where the patient forgets or does not follow up the referral, the community pharmacist has access to the information that may assist them to engage with the patient and they are also able to note any changes to medicines. There is an administrative burden on the hospital staff to manage the process of creating and sending the information, however, this burden can be reduced by recording the referral and arranging the faxing via dispensary personnel. During the development of this toolkit anecdotal feedback obtained from organisations operating this type of referral system showed that this approach is time-consuming and there is a high dropout rate from the point of referral to a patient attending their community pharmacy.

ELECTRONIC REFERRAL

Includes the use of NHS.net e-mail, dedicated e-referral tools, and a fully integrated e-referral solution. These solutions have been developed to reduce or remove administrative burden and where possible make data available for sharing from within existing systems.

- **E-mailing** can be time consuming and relies on a readily available up to date list of appropriate recipients; and also the facility to attach a copy of the discharge letter.
- A **dedicated e-referral tool** can alert a community pharmacist that a patient is being discharged and needs a medicines follow-up. It allows the hospital team to create an auditable e-record of a referral and the community pharmacist can feedback to the hospital the outcome of any intervention. However, unless the system is integrated with hospital systems, a discharge letter may not be present, and completing the required patient information may be time consuming.
- A **fully integrated solution** with hospital systems enabling referrals to be generated at any point in the patient's pathway which is automatically sent at the time of discharge, this method includes tools to audit and track referrals and feedback from the community pharmacy. These solutions facilitate the end to end referral process including, but not limited to:
  - recording of named hospital team member creating the referral;
  - documenting patient consent;
  - populating patient details from the patient administration system;
  - identification of the patient's pharmacy via search and geolocation;
  - creation of referrals to pharmacy and / or other healthcare professionals e.g. the patient's GP;
  - automated completion and sending of the referral with the discharge letter on discharge;
  - notification to the community pharmacy;
  - encryption of the data in transit and at rest when passed outside the hospital;
  - secure audited retrieval or rejection of the referral by the hospital pharmacy;
  - action and feedback from the community pharmacy on the referral to the named hospital team member.

  Administrative interfaces should be organised around hospital pharmacy teams to allow the management and tracking of referrals within teams looking after specific wards. As the referral is linked to the patient's hospital record, repeat admissions and subsequent referrals can be viewed and tracked in a single patient view.

Examples of referrals systems in practice

This is a summary of examples from areas around the country where health economies have introduced various referral systems.

Signposting: North Yorkshire LPC.

Faxing: Derby Hospital NHS Foundation Trust; NHS Solihull CCG; Pharmacy Northamptonshire; Southport and Ormskirk NHS Trust; Royal Cornwall Hospital.

Electronic:

- **E-mail:** Southend University Hospital NHS Foundation Trust.
- **Dedicated e-referral tool:** Newcastle-Upon-Tyne Hospitals (through ***PharmOutcomes***).
- **Fully integrated solution:** East Lancashire Hospitals NHS Trust (through ***Refer-to-Pharmacy***).

In Wales there is a nationally commissioned discharge medication review (DMR) service and an e-referral solution is being developed through the Wales Telehealth programme. In Scotland small-scale pilots are taking place around the Chronic Medication Service (CMS).

Appendix 1 provides details of three case studies which demonstrate the functionality of two of the electronic solutions and a phone / fax version.

Developing a business case

Each health economy will need to consider the particular local drivers and priorities which will support the business case for any solution. The elements outlined above in 'Making the case for change' and below in 'Benefits of referrals for individuals' also need to be considered as part of a business case.

COST-EFFECTIVENESS EVIDENCE

With the NMS, each quality adjusted life year (QALY) gained at a population level costs the NHS only £3,005.[4] This is well below the NICE threshold of £20,000 / QALY gained. The NMS therefore represents exceptionally good value for money. The Welsh DMR report further shows a three-fold return on investment across the health economy.[9]

The cost elements to consider in adopting a referrals system are:

COSTS TO DELIVER NMS AND MURS

There is no additional cost to a local health economy for making better use of community pharmacy NMS and MUR services because they are funded through a central and nationally commissioned contract.

HOSPITAL STAFF RESOURCES

Any additional time spent by pharmacy teams in hospital will vary depending on which solution is implemented and should be considered against the off-set of the overall benefits gained for patients, as well as reduction in hospital admissions. Data shows that in Wales, hospital pharmacy teams using *paper-based* referral systems typically spend 19.48 minutes per referral.[9] These times are significantly reduced when more efficient integrated referral and information transfer systems are used which take less than one minute to complete for each referral.

COMMUNITY PHARMACY STAFF RESOURCES

Any referral system will mean that there is time spent by community pharmacy team members in the management of incoming referrals. In addition any feedback provided by community pharmacies, over and above that provided as part of the MUR or NMS service, would require time and effort on the part of the pharmacy team. However, the number of referrals received weekly by an individual pharmacy is likely to be in single figures, making workload manageable and should be seen to offset the current time spent reconciling post discharge treatment regimens.

SYSTEMS AND SOLUTION COSTS

Each of the solutions described in this toolkit will have some element of operational and management costs; for example, leaflets and forms for the paper based referral services, staff time and resources to be trained and to then manage the administration of any system adopted. Electronic systems may have software licensing and maintenance costs, there may also be dependencies on existing hospital IT systems which need to be considered. Each health economy will need to consider the costs and benefits of these with respect to their desired scope and the level of investment required to put any solution in place.

The scope and functionality of electronic systems will determine the costs and how these will be met.

Benefits of referrals for individuals

An individual's role or profession will determine how they see the benefits of a referral system. The benefits to all parties really come from the benefits to their patients. Hospital pharmacists should see a reduction in hospital admissions due to an improvement in medicines adherence. Community pharmacists have the opportunity to be an integral part of a patient pathway which allows them to utilise their inherent skills, and to build professional relationships with patients and fellow health professionals.

Here are some anticipated benefits:

PATIENT

- supported to get the most from their medicines and remain in a better state of health through formal contact with their community pharmacist
- fewer or no hospital admissions or emergency department attendances
- a reduced risk of re-admissions as a result of medicines errors.

GP

- supports delivery of the Directed Enhanced Service (DES) for unplanned admissions as referrals target patients at risk of post-discharge medicines adherence issues
- knowing a patient has been through a medicines adherence programme provides them with assurance they are taking their medicines correctly and limiting medicine waste
- having an accurate list of medicines can be important for disease / medicine combinations as part of the Quality Outcomes Framework (QOF) indicators.

COMMUNITY PHARMACIST

- being an integral part of the patient pathway that allows them to use their clinical skills
- facilitates a greater degree of professional relationship with their patients.

HOSPITAL PHARMACIST OR TECHNICIAN

- being part of a patient-centred pathway that supports medicines adherence and builds stronger ties with community colleagues and reduces hospital admissions.

CHIEF PHARMACIST

- improvements in medicines optimisation leads to fewer medicines being dispensed and wasted
- the clinical team are integrated into a bigger patient pathway.

FINANCE DIRECTOR

- reduction in readmissions means less bed pressures and fewer unnecessary admissions for which hospitals may not receive a full tariff payment
- supports future financial sustainability, although referrals must be done at a sufficient rate to make an impact (*all* eligible patients should be referred). For example, if each year a hospital has 8,000 people readmitted to hospital within 30 days, each 1% reduction (i.e. for every 80 patients reduced per annum) would equate to a saving of £139,000 each year for each percentage reduction.

CCG MEDICINES MANAGEMENT / OPTIMISATION TEAM

- improved utilisation of medicines with less waste
- patient pathways will be improved and become more integrated across different sectors of care
- possibility to spread innovative practice to non-acute providers such as community services (district nursing, community hospitals etc)
- if domiciliary services are in place then more referrals are received due to the ease and speed of making a referral with an electronic tool and with the 'referrals mind-set' of the hospital team.

PART 2: MAKING IT HAPPEN

The basic requirements of an e-referral system

- A system should allow referrals to be made quickly. It should be user friendly and integrate with the workflow of the hospital pharmacy teams, whether on wards or in a dispensary area. If a "typical" hospital discharges around 150 patients per day, they may wish to make referrals or provide information to community pharmacies in around half of all cases.
- Patients should be informed that a referral may benefit them and their consent recorded in accordance with the hospital's governance requirements. The referral should be linked to a named member of the pharmacy team to allow them to follow up and receive clarification or feedback on the referral.
- Integration with the hospital's patient administration system (PAS) is desirable to reduce the risk of transcription error and to ensure that changes in patients' circumstances are reflected in any referral. Data entry fields relating to the referral should avoid using free text unless absolutely necessary; the system should make it easy to identify the desired recipient of the referral.
- Patients who are uncertain of their pharmacy details will turn to the Trust staff to assist them to identify the pharmacy of their choice. Ideally the systems should facilitate this process, allowing the patient's pharmacy to be identified at the bedside using partial information.
- If a hospital uses e-discharge letters, it is crucial that a copy of the relevant letter is attached to the referral. Integration with administration systems allows for further automation and reduces the need for further intervention from the pharmacy team.
- The community pharmacy interface should be user friendly, enabling easy notification and management of an incoming referral including archiving once it is processed. The facility to reject referrals where the pharmacy is unable to assist the patient is also important. Where information changes take place after discharge then any referral system should ensure there is a process to update or withdraw a previous referral so the community pharmacy always has the most up to date information.
- Data security is paramount. An e-system must conform to the NHS Information Security and any local hospital requirements. Data should be encrypted in transit and at rest and the system should support audit processes. Community pharmacists should have user name and PIN control access to limit who can access data and it must be auditable.
- The system should also be auditable to allow reporting on various key performance indicators. This could be the numbers of referrals of each type from the hospital, and could drill down to individual staff member or ward in order to provide assurance that the system is being used as expected. Community pharmacists similarly should be able to view how many different types of referrals they have received and processed.
- Ideally the system should enable two-way communication between the recipient and the referrer should further information be required, or to provide feedback on a patient outcome if desired. The system should also allow messaging to the patient's GP to let them know an NMS or MUR had taken place, and potentially enable messaging with outcomes and actions.
- A final consideration for a hospital is that a referral system may be adaptable to other referral needs for the organisation such as to district nurses. It would just need a new referral type, e-form and delivery recipient.

How can I implement this?

The detail will depend on which solution you wish to implement but you must involve leaders from all local key stakeholders in a meeting to agree a strategy. This group must initially include a hospital leader (possibly, but not necessarily, the Chief Pharmacist), the LPN chair, a lead from the LPC, a Clinical Commissioning Group medicines optimisation / management lead and patient representatives. An initial discussion will lead to meetings with finance departments and Trust IT and Governance leads.
Your local academic health science network (AHSN) should be approached to see what they can provide to support spread and implementation across the area. System resilience groups may also be able to support this initiative.

Electronic systems rely not only on an IT solution but also on behavioural and process changes to working patterns particularly at the hospital end. It is crucial at least one local champion from each of the major stakeholder groups is identified at an early stage to facilitate the roll out of the preferred solution. Champions may identify themselves naturally in the course of roll out or they may be more formally identified, and their role should not be

underestimated; they will 'get it', they will enable the roll out of your referral system, removing blocks throughout implementation and supporting pharmacy teams post-go-live; they will be the ones who will 'make it happen' on the ground. The champion(s) will require time to deal with logistical and co-ordination issues.

What are the commissioning implications?

The NMS and MURs are nationally commissioned services, so increased discharge activity will not generate a local cost pressure. There is currently a limit in the national contract to each pharmacy to deliver no more than 400 MURs each year with 70% of these coming from nationally agreed targeted groups, including patients discharged from hospital where changes to their medicines have occurred during their stay.[18] A decision could be made to put in place a locally enhanced service to remove this limit to allow more post-discharge MURs for any pharmacy that exceeds their quota (or putting in place a strategy to deal with this), as the demand for this service comes from the hospital and is not in the control of any individual pharmacy. There would be financial implications for this local service. Consideration also needs to be given to the provision of an MUR service to those patients who are housebound or resident in a care home i.e. a domiciliary MUR service.

The service specification for the NMS stipulates the number of NMS reviews each community contractor may deliver.[19] The NMS is only available to patients with certain long-term conditions (asthma, COPD, hypertension, type II diabetes, and patients on anticoagulants and antiplatelets). Recent research showed that GPs' priorities for extending the service are: heart disease, mental health and pain medicines (especially in arthritis).[4] Locally you may wish to extend the people eligible for the NMS, and the upper limit of interventions, but this would need to be commissioned from local funds e.g. a disease-specific medicines optimisation service or an enhanced service commissioned locally by the CCG or across an Area Team.

The creation of a local commissioning for quality and innovation (CQUIN) indicator is one mechanism to support the creation of efficient and effective referral solutions from local hospitals.

For electronic solutions consideration must be given to which local organisation(s) will fund the cost of initial interface setups and the annual license fee.

How can local patient and public engagement (PPE) be obtained?

Involving local patient groups is a good way to raise awareness of the value that pharmacy can bring to patients, and also to generate demand both for the MUR and NMS services and the implementation of a referral solution locally.

You may already have effective contacts, or may consider focussing in on a particular group e.g. type II diabetics, depending on local health needs.

> Patients in East Lancashire Hospitals are shown a short film before they are consented to be referred. The film is shown on their bedside TV and explains, in lay terms, the consequences of poor medicines adherence and how hospital and community pharmacists can help them through innovative working, and finishes with some patient success stories to really sell the benefits. This film can be viewed at **www.elht.nhs.uk/refer.** Patients are also sent an optional text or e-mail reminder when they leave hospital to further reinforce the message that a referral has been made. Not every hospital will have bedside TVs and it should be determined locally what the optimal solution is to engage with patients to 'sell' the benefits of them participating in a referral. Posters can be displayed in community pharmacies and GP surgeries explaining the service and a bookmark may be given to each patient (Appendix 2 online) rather than a regular information leaflet, or a leaflet may be preferred (Appendix 3 online).

Your communications campaign to promote your referrals service should consider ways of explaining what an MUR or NMS is and how it can benefit patients. Posters and leaflets are one possibility, messages on GP or community pharmacy e-notice boards could also be utilised to display short statements.

Identifying eligible patients for referral

Referral types will depend upon what post-discharge pharmaceutical services are available in a health economy. All community pharmacies have the potential to offer NMS and MURs (providing they have accredited pharmacists and a consultation room). They can all update their PMRs with changes to medicines post-discharge, but there may be other locally commissioned services to which a patient could be referred. Examples include smoking cessation, anticoagulant services, care home and domiciliary services. An e-referral system should be enabled to allow referral to any such local service.

It is important that all patients who are eligible for any available service are identified and referred; it should not be a lottery as to whether or not an eligible patient is referred. The process of identifying eligible patients for referral, and what constitutes eligibility, should be clear to the hospital pharmacy team. This should form part of any training during the implementation of a referral system and can be additionally supplemented with the Centre for Postgraduate Pharmacy Education's (CPPE) e-learning and *Learning at Lunch* module: *Medicines use review and the new medicine service: how can hospital pharmacy contribute*?[20]

Patients should expect to be referred and pharmacy teams need to examine local working practices to enable systematic referrals. In principle, if a patient meets the eligibility criteria for NMS or a relevant MUR then they should be referred. An example of an algorithm identifying eligible patients is shown in Appendix 4 (available online at **www.rpharms.com/referraltoolkit**). This should be supported with a locally developed standard operating procedure.

Preparing to receive referrals

If your health economy chooses to go with an electronic referral system then there should be support from the system provider to educate community pharmacy teams on how to set up user accounts, utilise the system and configure it for optimal use, including how they wish to receive notifications of a referral in order to prompt log in to the system e.g. text, email, fax or any combination of these.

A referral should be dealt with promptly as the maximum benefit of a NMS or MUR should be seen in the first 10 days of commencing a new medicine.[21] Once a mutually agreed appointment has been made for the consultation, the pharmacist should review the discharge letter attached to the referral and prepare to discuss likely issues surrounding particular medicines. If a referral is for information only then they need to take the appropriate action to update a PMR to draw attention to changes next time a prescription arrives from the GP e.g. MDS or care home patients. This is particularly important for patients discharged to care homes and / or those receiving medicines adherence support such as monitored dosage systems (MDS).

Community pharmacists and their teams must determine how they will manage referrals by whichever process is implemented; they will be responsible for liaising with, and ensuring that, the patient attends their pharmacy at the agreed time for the intervention, and to take appropriate action to follow up if the patient does not attend.

Pharmacists providing NMS and MURs should consider attending or completing relevant CPD packages supplied by CPPE in this area; and they, and their staff, should attend any launch event, if one has been organised to support the introduction of a referral system, as this is a prime opportunity to understand the impact of a referral system on one's business and to network with hospital and community colleagues.

CPPE in England is developing a training package to support community pharmacists to fully utilise hospital discharge letters in order to complete post-discharge MURs and the NMS. The package, to be launched in early 2015, has been developed specifically with referrals from hospital to community pharmacy in mind, and this or any other related training event should be attended, or ideally run, by some of the local hospital pharmacists.

Communication plan and dissemination

This should start at the point of any local IT development to raise awareness across all pharmacy sectors of what is happening and likely timescales. All relevant parties must be kept informed during development with regular updates and a countdown to go-live once this has been established. This will help everyone think about what preparation they need to make.

- Consider a launch event on or shortly after go-live invite local health leaders and patient groups, the local or regional press and media, the local MP, any other local groups or individuals you would like to invite
- Consider what show material would be useful and how you are going to use it. If you are using an e-system provider they may have templates for you to use or adapt
- Consider other strategies to engage with patient groups to raise awareness of what you are doing and what people should expect to happen
- Consider how you will use social media to promote referrals and encourage patients to share their experiences.

Ensuring quality of information

It is important that information leaving the hospital is of high quality. Medicines reconciliation is underpinned by NICE guidance.[22] For the whole hospital team, consistently ensuring that high quality information regarding medicines is included on the discharge letter starts with taking an accurate drug history on admission. In addition having mechanisms in place to ensure that any changes to medicines are easily identifiable i.e. what has started, stopped, changed and why such changes have been made, should be documented on charts, notes or the e-record. This makes completion of discharge documentation and medicines reconciliation in the community post-discharge accurate, safer and easier for all parties.

The RPS Professional Standards for Hospital Pharmacy Services[1] supports NICE guidance and states that pharmacists should reconcile patients' medicines as soon as possible, ideally within 24 hours of hospital admission to avoid unintentional changes to medication.

The RPS transfer of care guidance[2] provides several examples of good practice that are potentially adoptable or adaptable to different hospital settings. In addition to this Appendix 5 (available online at **www.rpharms.com/referraltoolkit**) provides an example of a Medicines Reconciliation checklist that can be adopted or adapted to local use. This one contains core questions to ask the patient to elicit a drug history of consistent quality so nothing important is missed; it is intended as a prompt to underpin a standard operating procedure. The completed checklist can be inserted into the patient notes or form the basis of an e-form for hospitals using an electronic patient record. It should be noted that one of the questions asked at this first pharmacy encounter is *"which community pharmacy do you usually use"*; this information could prove very useful for a later referral. It is useful to determine how long a patient has used that community pharmacy as to be eligible for an MUR they should have been using it for a minimum of 3 months.

Appendix 6 (available online at **www.rpharms.com/referraltoolkit**) gives an example of a ward round checklist that can be used on a consultant ward round which includes prompts for recording the reasons for starting, stopping or changing medicines. Appendix 7 (available online at **www.rpharms.com/referraltoolkit**) gives an example of a transfer of care 'friendly' prescription chart that makes it easy to visually track changes to medicines. Appendix 8 (available online at **www.rpharms.com/referraltoolkit**) gives an example of an extract of a transfer of care 'friendly' discharge letter that complements the prescription chart example.

Hospitals that use an electronic prescribing system have the potential to make the tracking of changes to medicines automated as part of the prescribing process. Ideally a system should mandate the capture of the indication for a new medicine, the reason for a change and the reason for a cessation, most likely as free text. These changes should track through to a related section of the e-discharge letter so it is clear to prescribers, the pharmacy team and patients what changes have taken place and why. Unfortunately at present not all e-prescribing systems have this functionality; if your hospital is in this position then strong consideration should be given to increasing this functionality in development of existing systems or as a requirement of a new system.

Additional information to include in a referral

As individual pharmacists and pharmacy teams gain experience with a referral system they should share experience of what works well and what doesn't. As well as local networks it would be useful to spread good practice via national forums. Examples of extra information that may further inform a community pharmacist is that the patient has had a STOPP/START review,[23,24] or that they have been referred to another complementary service such as a domiciliary service.

CHECKLIST FOR IMPLEMENTING AN ELECTRONIC REFERRALS SYSTEM

MAKING A CASE FOR CHANGE

- Arrange meeting with key stakeholders (Hospital, CCG, LPN, LPF, LPC, patients, system resilience groups)
- Evaluate referral options – contact systems providers – determine if other referral pathways (e.g. other pharmacy services, domiciliary visits, district nurse etc.) could use an e-referral solution
- Determine what support a system provider will provide to aid implementation and on-going systems support for business continuity
- Consult with Trust Information Management and Technology (IM&T) and Information Governance leads to confirm any proposed sharing of patient data via the e-referral system will meet both NHS and Trust standards
- Identify champion(s) and / or project manager, and what time commitment they will require to deliver the project
- Determine measures of success, baseline and potential targets (referral numbers, outcomes (NMS/MUR), Emergency Department (ED) attendances, hospital admission and re-admission rates and the savings to the health economy of reducing demand on hospital services)
- Discuss what mechanisms and funding is available to extend the MUR / NMS cap to support increased referrals
- Determine if hospital bedside TVs are available and if they are capable of showing a patient-facing information film
- Determine the total costs and benefits / savings for your health economy; factor in any additional costs for show material etc. and create your business case.

CREATING A BUSINESS CASE

- Obtain a business case template from your local commissioning organisation.

Justification of Need

- Describe the need for the service, consider both national and local strategy, priorities and targets, using evidence to justify the need and demonstrate good practice.

Aims and Objectives

- These must be SMART (Specific, Measurable, Achievable, Realistic and Timebound), clear and concise, and should ideally link to outcome measures that are already captured.

Description of the service

- Be succinct, explain how the service will function
- The scope of the service – what will be included and excluded
- Describe how patients will be referred in and out of the service and by whom
- Remember to consider Clinical and Information Governance
- Which stakeholders have been engaged?

Benefits of the Service

- Include how the service will impact on the patient / department / Trust / NHS
- Try and link the benefits to the evidence and outcomes where possible.

Training and development

- Include both clinical and non-clinical training
- Remember to include relevant training of other disciplines where appropriate to the service.

Cost

- Include models and assumptions made
- Ensure costs are broken down into relevant parts. Remember to also consider costs for backfill for training, on-going training, peer support, clinical governance
- Incorporate any potential cost savings.

Evaluation

- Describe how you will evaluate the service once it is up and running
- Deliverables and outcome measures should link to aims and objectives
- Include patient and staff satisfaction
- Consider the timeframe for evaluation.

Layout

- Ensure the layout is clear logical and easy to follow
- Use clear headings and sections
- Consider other ways of presenting some of the information e.g. flow diagrams, tables
- References should be relevant and in the appropriate format.

MAKING IT HAPPEN

- Inform all hospital, community and primary care pharmacy teams, GPs and other relevant primary care and hospital teams of decision to implement an e-referrals system via hospital communications, and LPN, LPC, LPF channels. Communicate timetable to go live, what the system will do, how it will affect working practices and what benefits it will confer
- Maintain regular communications with key stakeholders (including GPs) throughout this process. Plan in regular provision of updates
- Liaise with software provider and IT department to develop and test interfaces
- Liaise with Trust Governance lead and software provider to ensure any local issues and concerns are identified and addressed
- Agree standard operating procedures for hospital and community pharmacy ends of the system
- Agree communications plan for launch: local / regional press, radio, TV; launch event for key stakeholders, health economy leaders, local MP(s), key patient groups; final communications to all pharmacy teams and GPs
- Determine how social media can be used to support the whole 'referral movement' in your health economy
- Determine if you will use bedside TVs as a communication tool, associated costs and time frame to put this in place
- Determine what show material and leafleting is required, where it will be placed (wards, out-patients, health centres, hospital dispensaries, community pharmacies), who needs to authorise its use and how it will be used. What are the costs?
- Create communications and sign up process to create user accounts for community pharmacy and hospital users
- Training for hospital staff on using the system and on eligibility criteria for the various referral options. May include CPPE package
- Pilot on one ward to check system is working
- Go-live and roll out across your organisation
- Consider an engagement event for community pharmacy and hospital pharmacy teams shortly after go-live facilitated by e.g. LPN, LPC, LPF. This could be specifically around your referral system, and could have additional educational elements e.g. CPPE post-discharge MUR training session
- Monitor and evaluate outcomes as agreed in business case.

ACKNOWLEDGEMENTS

This toolkit was written by the members of the Royal Pharmaceutical Society's Innovators' Forum listed below. We would like to thank Rhian Holland, former project manager for 'Now or Never; Shaping Pharmacy for the Future', the many people who contributed to the initial search for evidence of referrals systems being used at present, members of the Innovators' Forum who provided invaluable insight and contributions in our formal meetings and virtually, and to all the people who contributed to the consultation on the early draft of this toolkit.

Alison Blenkinsopp, Professor of the Practice of Pharmacy, University of Bradford

Alistair Gray, Clinical Services Lead Pharmacist, East Lancashire Hospitals NHS Trust

Cathy Picton, Pharmacist Consultant and Co-author of Now or Never: Shaping Pharmacy for the Future

Heidi Wright, English Practice & Policy Lead, Royal Pharmaceutical Society

James Andrews, Lead Pharmacist, Guildowns Group Practice and Virgin Care

Rachel Urban, Research and Evaluation Manager, Community Pharmacy West Yorkshire and Clinical Governance Pharmacist, Bradford Teaching Hospitals NHS Foundation Trust

Robbie Turner, Chief Executive Officer at Community Pharmacy West Yorkshire

APPENDIX 1: CASE STUDIES 1–3

Case Study 1: East Lancashire Hospitals Trust, Refer-to-Pharmacy

Refer-to-Pharmacy is the first fully integrated hospital to community pharmacy e-referral system innovated at East Lancashire Hospitals NHS Trust and developed in conjunction with Webstar-Health. This is an overview of how it works:

Following a standard operating procedure, when a pharmacist or technician identifies a patient eligible for referral (which can be at any point from admission to discharge) they first show them the patient-facing film on the patient's bedside TV. If the patient consents to being referred *Refer-to-Pharmacy* is accessed. There are four stages to completing a referral:

1. The patient's hospital number is input to draw down all demographic data for that patient.
2. A formal consent statement is acknowledged.
3. The reason for referral is clearly stated using a dropdown menu (see Appendix 9 available online at **www.rpharms.com/referraltoolkit**).
4. The *Find-a-Pharmacy* function (which includes a list of pharmacies and an interactive map) is used to determine where to send the referral.

The referral remains in limbo until the system recognises that (electronically speaking) the patient has been discharged from hospital and their discharge letter is completed. At this point a referral notification is sent to the community pharmacist to request they log in to the community pharmacy end of the system; the patient also has the option of a reminder being sent to them by text or e-mail that a referral has been made to maintain awareness.

The community pharmacist contacts the patient to agree a mutually convenient time to meet, or updates their medication record, depending on the type of referral. If a referral is not acknowledged within a specified time a message is sent back to the hospital requesting they contact the pharmacy directly to remind them to log into the system. *Refer-to-Pharmacy* also facilitates communication back from the pharmacy to the hospital if further information is required. An inbuilt audit tool allows various performance indicators to be tracked. The daily target is to make 70 referrals each weekday to the community pharmacies in the local health economy.

In early 2015 a research feasibility study will commence, led by the School of Pharmacy at Manchester University, into the outcomes of the *Refer-to-Pharmacy* process.

Refer-to-Pharmacy can be configured to meet local health economy demands if other referral types are required e.g. smoking cessation, care home or domiciliary MUR. Ultimately it is configurable to facilitate a referral from any health care professional to another. In East Lancashire it is also being used to refer to the two domiciliary pharmacy teams in each of the CCG areas within its footprint; this is mainly for patients unable to visit a pharmacy.

East Lancashire Hospitals NHS Trust is a reference site; interested parties can see *Refer-to-Pharmacy* in action, and through the software developers the Trust may provide additional support around implementation and local communications.

For further information on *Refer-to-Pharmacy* contact **alistair.gray@elht.nhs.uk**.

Case Study 2: Newcastle-upon-Tyne Hospitals with North of Tyne LPC, PharmOutcomes electronic referral

PharmOutcomes is a web-based application routinely used by community pharmacies in many parts of the country to record data on service provision and increasingly to securely receive information to support service delivery. Newcastle-upon-Tyne Hospitals have worked closely with North of Tyne LPC and *PharmOutcomes* to develop an electronic referral process that allows hospital pharmacy staff to refer patients to their community pharmacy for post discharge follow up. The service has been running since July 2014 and around 100 referrals per month have been made. Local LPCs had an important role in initially monitoring the service and ensuring referrals are being followed up promptly by community pharmacies.

This is how the service works:

At an appropriate point during the patient's admission, hospital pharmacy staff gain consent from eligible patients to make a referral, provide them with an information leaflet and identify which community pharmacy they normally use.

At the time of discharge (or shortly after) hospital staff log in to *PharmOutcomes* and populate various patient demographic fields: name; date of birth; postcode; NHS number; GP details (this information will soon be pulled directly from the hospital PAS system). A copy of the discharge medicines list can be manually copied from the Trust electronic record system and pasted into a 'Medicines on discharge' field. The community pharmacy where the referral is to be made is then selected from a drop down list, which then makes the referral visible to that pharmacy. Finally the service being requested and the contact details of the member of staff making the referral are entered. There is also a free text field to provide any relevant additional information (e.g. medicines started or stopped). It takes a couple of minutes to complete a referral form which was purposely kept simple to ensure as many referrals as possible could be made.

Outcome data is captured through *PharmOutcomes* and hospital staff receive a report each week on the numbers and types of interventions that have been made as a result of their referrals. Hospital pharmacy staff can also view messages from community pharmacy colleagues. Community pharmacists can send details of interventions to the patient's GP via secure email (without the need for the pharmacy to have an nhs.net account themselves). *PharmOutcomes* can produce patient leaflets personalised around the patient. A tracker report allows the commissioner to see the whole patient journey (protected by anonymisation of patient identifiable data).

In future it is hoped an interface between the hospital's electronic prescribing system and *PharmOutcomes* will be created enabling auto-population of the 'Medicines on discharge' field.

For further information please contact:
steven.brice@nuth.nhs.uk

Case Study 3: Derby Hospitals NHS Foundation Trust

The 'Help For HARRY' scheme was created to support patients who have been highlighted as being at risk of re-admittance, and need extra support / education whilst in hospital and in the community. HARRY is an acronym to describe the benefits to patients:

- **H**ave a chat with your Pharmacist
- **A**sk a question and share a doubt
- **R**eview your medicines and medical conditions
- **R**est assured your medicine regimen is right
- **Y**our community pharmacy team is there for you.

Relevant information on each eligible patient is forwarded to the nominated community pharmacy via fax. Transferring relevant information via 'Help for HARRY' to other healthcare professionals involved in patients care is vital; this helps to ensure patients are receiving the on-going support that they need. The Pharmacist contacts the patient and arranges a convenient time to provide support through the advanced services, MUR or NMS.

Patients find the scheme highly beneficial and patients who have used the service so far have told the Trust: [25]

- "The pharmacist went through everything on my drugs list and checked if I had any questions"
- "It is imperative to have a relationship with your pharmacist if taking lots of medicines"
- "Just telling me what medicines are for ... makes me feel better"
- "I think it puts your mind at rest – you need that reassurance".

The hospital pharmacy team would prefer a more time efficient electronic solution to the current fax procedure.

For further information contact: **sally.clarke8@nhs.net**.

REFERENCES

1. Royal Pharmaceutical Society. Professional Standards for Hospital Pharmacy Services. 2012 Available at http://www.rpharms.com/unsecure-support-resources/professional-standards-for-hospital-pharmacy.asp
2. Royal Pharmaceutical Society. Keeping patients safe when they transfer between care providers: Getting the medicines right. 2012. Available at: http://www.rpharms.com/getting-the-medicines-right/keeping-patients-safe-report.asp http://www.rpharms.com/previous-projects/getting-the-medicines-right.asp
3. Royal College of Physicians. Future Hospitals;caring for medical patients. 2012. Available at https://www.rcplondon.ac.uk/resources/future-hospital-caring-medical-patients-full-report
4. Elliott R *et al*. Department of Health Policy Research Programme Project 'Understanding and Appraising the New Medicines Service in the NHS in England (029/0124). 2014. Available from: http://www.nottingham.ac.uk/~pazmjb/nms/downloads/report/files/assets/basic-html/index.html#1
5. Kings Fund, Data Briefing, 2012. Emergency hospital admissions for ambulatory care-sensitive conditions: identifying the potential for reductions. Available at: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/data-briefing-emergency-hospital-admissions-for-ambulatory-care-sensitive-conditions-apr-2012.pdf
6. National Patient Safety Agency and National Institute for Health and Clinical Excellence. Technical safety solutions, medicines reconciliation. Available at www.guidance.nice.org.uk/PSG001
7. Dodds LJ. Optimising pharmacy input to medicines reconciliation at admission to hospital: lessons from a collaborative service evaluation of pharmacy-led medicines reconciliation services in 30 acute hospitals in England. *Eur J Hosp Pharm* 2014; 21: 95–101 doi: 10.1136/ejhpharm-2013-000385.
8. Dodd LJ. Pharmacist contributions to ensuring safe and accurate transfer of written medicines-related discharge information: lessons from a collaborative audit and service evaluation involving 45 hospitals in England. *Eur J Hosp Pharm* doi:10.1136/ejhpharm-2013-000418
9. Alam MF *et al*. Evaluation of the discharge medicines review service March 2014 Available at: http://www.cpwales.org.uk/Contractors-Area/Pharmacy-Contact---Services/DMR/DMR-Evaluation_Final-Report_13082014.aspx
10. NHS England (2014). Patient safety alert on risks arising from breakdown and failure to act on communication during handover at the time of discharge from secondary care. http://www.england.nhs.uk/2014/08/29/psa-communication/
11. Urban R *et al*. Communicating medication changes to community pharmacy post-discharge: the good, the bad, and the improvements. *Int J Clin Pharm*. 2013 Oct; 35(5): 813–20. doi: 10.1007/s11096-013-9813-9. Epub 2013 Jun 29.
12. York Health Economics Consortium, University of York, and the School of Pharmacy, University of London. Evaluation of the Scale, Causes and Costs of Waste Medicines. 2010. Available at: http://eprints.pharmacy.ac.uk/2605/1/Evaluation_of_NHS_Medicines_Waste__web_publication_version.pdf
13. Care Quality Commission (2013) National findings from the 2013 Inpatients survey. Available at: http://www.cqc.org.uk/sites/default/files/inpatient_survey_national_summary.pdf
14. Paulino EI, *et al*.. Drug related problems identified by European community pharmacists in patients discharged from hospital. *Pharm World Sci* 2004; 26: 353–60.
15. Hugtenburg JG, Borgsteede SD, Beckeringh JJ. Medication review and patient counselling at discharge from the hospital by community pharmacists. *Pharm World Sci* 2009; 31: 630–37.
16. Royal Pharmaceutical Society (2014). Domiciliary Medicines Management Group http://www.rpharms.com/sector-groups/domiciliary-medicines-management-group.asp.
17. Barnett N, Parmar P, Ward C. Supporting continuity of care: referral to the NMS after discharge from hospital. Pharm J 2013; 290: 178.
18. PSNC (2014) National target groups for MURs http://psnc.org.uk/services-commissioning/advanced-services/murs/national-target-groups-for-murs/
19. PSNC (2013). New Medicine Service guidance. http://psnc.org.uk/wp-content/uploads/2013/06/NMS_guidance_Dec_2013.pdf
20. www.cppe.ac.uk
21. Barber N *et al*. Patients' problems with new medication for chronic conditions. Qual Saf Health Care 2004;13:172–175 doi:10.1136/qshc.2003.005926 (http://qualitysafety.bmj.com/content/13/3/172).
22. NICE: Medicines adherence: Involving patients in decisions about prescribed medicines and supporting adherence. 2009. Available at http://www.nice.org.uk/guidance/cg76
23. Gallagher P *et al*. STOPP (Screening Tool of Older Persons' Prescriptions) and START (Screening Tool to Alert Doctors to Right Treatment): Consensus Validation. *Int J Clin Pharmacol Ther* 2008; 46(2): 72–83.
24. ELMMB (2013) STOPP/START toolkit – supporting medication review. http://www.elmmb.nhs.uk/search/?q=stopp
25. http://www.derbyhospitals.nhs.uk/patients/patient-visitor-services/pharmacy/medicines-use-review-mur/

Published by: Royal Pharmaceutical Society
0845 257 2570

ROYAL
PHARMACEUTICAL
SOCIETY