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Pharmacists working in Community Hubs

The RPS believes health and wellbeing will be improved by ensuring workforce plans recognise and use the skills and experience of pharmacists to support patients who take medicines as part of a comprehensive health and social care team approach within people's own localities.

Current situation

The NHS treats more people than ever before. Scotland, like many other countries, has seen treatment regimens become more sophisticated as people are living longer, many with complex conditions that may require more pharmaceutical care to support safe and effective self-management. Complex care, involving many medicines being taken, sometimes causes unintended harm, especially in our frail elderly population.[1]

In Scotland, every year we have 61,000 unplanned hospital admissions[2] and in the over 65s around 17% of these are medicines related, many of which could have been prevented.[2] We know that approximately 50% of medicines are not taken as intended by the prescriber[3]. This contributes to waste but more importantly means that patients do not receive full benefit from their medicines. The effects of non-adherence to prescribed medicines is not to be underestimated and has been quoted as being responsible for 47% of asthma deaths, an 80% increased risk of death in diabetes and a 3.8-fold increased risk of death following a heart attack[4].

The 2010 York report[5] stated that adherence could be improved with better understanding around the use of medicines and this concept is one of the principles embedded in pharmaceutical care.

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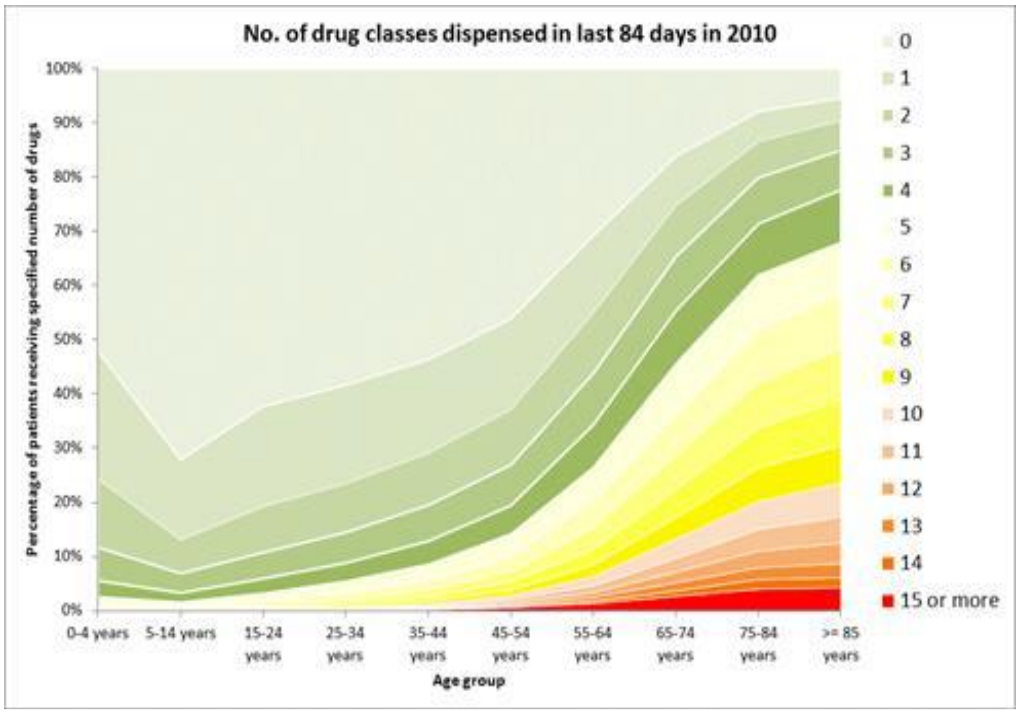
[1] Polypharmacy and medicines optimisation. Making it safe and sound. The King's Fund 2013.
[2] Health Improvement Scotland, Safer Use of medicines, August 2015.
[3] The Word's Health Report, World Health Organisation, 2003.
[4] Elliot R. Non adherence to medicines - not solved but solvable. J Health Serv Res Policy 2009:14:58-61.
[5] Evaluation of the Scale, Causes and Costs of Waste Medicines, York Health Economics Consortium. University of York and the School of Pharmacy, University of London, 2010.

Medicines are one of the most important interventions in modern day healthcare. They can help avoid premature death, cure illness and significantly improve the patient's quality of life. However, medicines can carry risks as well as benefits, and patient safety is a core focus for pharmacists wherever they are practising.

In Scotland 102.61 Million prescription items were dispensed in the community in 2015/16 at a cost of £1.10 Billion[6] with 1 in 5 Scots taking 5 or more medicines. This figure rises to almost 60% in the over 75 age group[2].

Table 1 below shows how the number of medicines taken increases with age.



Given the role medicines continue to play in today's NHS and the shared desire to avoid harm and conserve resources, it is now even more important that we look at how we use our available resource and optimise skill mix. Scottish Government has acknowledged since 2002[7] that the pharmacy profession is an underutilised resource. The PINCER[8] study in 2010 found that pharmacists play a critical role in reducing medicine errors in general practice and that pharmacists working with GP practices can significantly increase the quality of their prescribing. The PRACtICe study [9]by the General Medical Council found that 1 in 20 prescriptions contained either a prescribing or a monitoring error, and that in 1 in 550 items that error was clinically significant.

[6] ISD Prescription Cost Analysis 2015/2016 published 12th July 2016.
[7] The Right Medicine. A Strategy For Pharmaceutical care in Scotland. Scottish Executive 2002.
[8] http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)61817-5/abstract accessed August 5th 2016.
[9] Investigating the prevalence and causes of prescribing errors in general practice: The PRACtICe study, General Medical Council , 2012

Pharmacy is a science based profession with students spending five years training in all aspects of medicines development and use, including time spent in the science of medicinal chemistry and pharmacology to give them a unique education in how medicines act in the body and interact with each other. They are trained to provide pharmaceutical care, which includes taking responsibility for the outcomes of treatment as well as ensuring safe and effective use and supply of medicines.[10] Wilson and Barber[11] in their *Review of NHS Pharmaceutical Care of Patients in the Community in Scotland* stated that to be most effective pharmaceutical care requires good communication and shared understanding with patients and local prescribers which must be delivered within a framework of multi-disciplinary co-operation; meaning that the pharmacist works in partnership with the GP, the nurse, the social care worker and any other professional involved, to arrive at optimal treatment for the patient, and that therapeutic partnership also extends to the patient and any carers involved.

Pharmacists are generalists by nature with specific expertise in the use of medicines. Therefore they take a holistic approach to patient care and medication review. This will be increasingly important as people live longer, perhaps with several long term conditions (LTCs) where the use of clinical treatment guidelines for individual disease states become more complex. Working in the wider primary care team, and with social care colleagues, will allow pharmacists to help tackle the problem of polypharmacy. Furthermore, the provision of pharmaceutical care to people in care homes, supported care settings and those with LTCs should become the norm in every local community across Scotland. By ensuring a pharmacist is integrated into the community hub team, we can improve patient outcomes and patient safety wherever medicines are included in a patient's care plan.

As a member of the multidisciplinary team (MDT), there are key areas where the pharmacist's expertise is necessary, such as:

- reviewing medication regularly (polypharmacy reviews) to improve patient safety and outcomes e.g. preventing unplanned hospital admissions, particularly for patient taking high risk medicines
- providing continuity of care between primary and secondary settings including discharge planning
- reviewing medications post discharge and when patients transfer between health and social care settings
- anticipatory and end of life care
- ensuring cost effective and evidence based use of NHS resources
- clinical governance and ensuring safe systems and processes are in place wherever medicines are used
- treatment, monitoring and support of people with long term conditions
- ensuring optimum pharmaceutical care is delivered to people in care homes, supported care settings and our vulnerable populations in the community
- education and training of social care staff involved in medicines administration

[10] Hepler, CD, Strand LM. Opportunities and responsibilities in pharmaceutical care. Am J. Hosp Pharm, 1990; 47: 533-543.

[11] Dr Hamish Wilson and Professor Nick Barber .Review of NHS Pharmaceutical Care of Patients in the Community in Scotland 2013

- a point of contact for medicines information within the local health and social care team, and for patients
- interfacing with pharmacy colleagues in community, hospital and across other care settings and providers.

The King's fund when reviewing polypharmacy[1] has recommended that there should be clearly defined roles for doctors, nurses and pharmacists, working coherently as a team. They acknowledge that primary care consultations for patients with several LTCs may take longer than normal, and that instead of disease specific clinics patients should have all of their LTCs reviewed by a team of health professionals. Since medicines will inevitably be a significant part of that care then pharmacists must be included in the general healthcare team to ensure patient's benefit from the different expertise available across the range of health and social care professionals.

Scotland is not alone in recognising the need for new models of care to address the challenges of future demographics. The Welsh Government is also currently exploring ways to improve and expand primary care using primary care clusters. These clusters embody a broad team of health and social care professionals and they have recognised the advantages of including pharmacists as fully integrated members of the cluster (hub) team.

IT Support and Sharing of Information

The National Clinical Strategy[12] has acknowledged that IT solutions have not kept pace with clinical expectations. One of the key enablers to successful multidisciplinary working will be one single patient record, accessible appropriately by everyone caring for a patient, with the patient's consent.

Information about a patient's medicines, allergies, side effects and previous treatment is now generated and stored in several different places within and outside the NHS and healthcare professionals do not have a full picture of their patients' care.

As hubs develop further the lack of joined up information across primary and secondary care and between professionals involved in a person's care will eventually hamper the provision of clinical care. Read and write access to one single patient record is essential, with patient consent, to ensure information can be shared appropriately with all professionals involved in providing patient care, in order to keep patients safe and prevent avoidable harm.

Pharmacists have many examples of where access to patient records would improve patient care, particularly when patients are transferring across different health and social care settings, and in the out of hours period.

The example in appendix 1 illustrates the positive outcomes which can be achieved with appropriate access to the patients' health record.

[12] A National Clinical strategy for Scotland. Scottish Government. February 2016

Where links have been established within MDTs in community partnerships, sharing of information and closer working arrangements has proved advantageous in gaining a fuller understanding of the requirements of person centred care from both health and social care perspectives in a manner which was not previously possible. However lack of access to all relevant patient information can mean that patient care is not optimal and the full potential contribution of the MDT cannot be realised.

The way forward

The Chief Medical Officer's report "Realistic Medicine"[13] has outlined clearly the need to reduce harm from overtreatment, the unrealistic approach of single treatment guidelines and the need for shared decision making. The report states that this requires system and organisational change to promote the required attitudes, roles and skills in healthcare professionals, and that care will increasingly be given by well led multi-disciplinary and multi-sectorial teams in community settings.

The questions which therefore must be asked are:

- What needs to change?
- How can the system make better use of these different skills available to improve patient care and reduce the avoidable harm caused by medicines?
- How can pharmacists and GPs work closer together with other members of the health and social care team to bring a synergy to their practice?
- How can we build sustainability into the system to drive the longer term changes required to reduce hospital admissions due to medication incidents and sub-optimal treatment, as well as encouraging self-management and a shift towards prevention?
- How do we measure success?

It is our understanding that "hubs "can be virtual or physical or a combination of both.

Whichever models are chosen to fit the needs of the local population there are several options for the pharmacists' role as part of the MDT. Making better use of our limited resources, the best possible patient care will come from pharmacists practicing where they can make the most difference to patient care, and by ensuring that the tasks they undertake are patient-facing specific to their skill set.

- Direct NHS services already account for between 80-90% of community pharmacy workload but much more can be achieved by further integrating community pharmacies into new models of care as members of the wider health and social care team. This will ensure out of hours and in hours services are synchronised and patient information derived from pharmaceutical care in the community is included in health records. Sharing of information and a broad team approach to care is essential for patient safety. It will also allow development of new services that benefit from the accessibility and expertise

[13] Realistic Medicine. Chief Medical Officer's Annual Report 2014-15, Scottish Government, January 2016

of clinical pharmacists working in community, many of who are already independent prescribers.

- Building on the existing prescribing support pharmacist roles, many new posts have been funded in response to the current shortage of GPs. The RPS and RCGP have been working together to develop guiding principles regarding pharmacists working with or in GP practices for both GPs and pharmacists to ensure patients and the practice benefit fully from the additional pharmaceutical care that pharmacists can provide.

- Case reviews by multidisciplinary health and social care teams can identify patients where a medication review is required. This can support re-enablement and allow social care to tailor care packages and help improve adherence to prescribed medicines. This in turn can free up social care capacity and help minimise risk of hospital re-admissions.

- There is also a requirement for pharmacists to be present at strategic levels e.g. Strategic Planning Groups in Community Health and Social Care Partnerships, to ensure pharmaceutical care is appropriately embedded into community planning.

- Pharmacists must be involved in local clinical governance arrangements and training to ensure safe medicines systems are in place across community partnerships e.g. care homes, supported care settings, sheltered housing and where care packages are in place.

Collaborative working between health and social care teams within community hubs is key to improving patient outcomes. Trust and respect needs to be built between pharmacists and their GP colleagues to enable shared decision making around prescribing decisions and treatment plans, and to ensure everyone is working to their maximum potential in delivering patient care.

Going forward we must also ensure that pharmacists who work in community pharmacies are further enabled to work with GPs and other health and social care colleagues to improve care of patients. There are many opportunities for development which will be mutually beneficial to patients and to both professions. The recent report from Professor Lewis Ritchie[14] has cited many examples of how this could be taken forward both out of hours and in hours to relieve pressure on GP surgeries and A&E departments. The joint submission from pharmacy organisations[15] suggested several short and longer term solutions, including building on the current minor ailment service and utilising the increasing numbers of pharmacist prescribers.

[14] Pulling together: transforming urgent care for the people of Scotland .The Report of the Independent Review of Primary Care Out of Hours Services. November 2015.

[15] The Pharmacy Contribution to the National Primary Care Out of Hours Review http://www.gov.scot/Resource/0049/00492084.pdf accessed 31/8/2016.

Conclusions

By ensuring the right skill mix within the health and social care team and the appropriate provision of care and services for patients and the public closer to home, pressures on hospitals and A&E departments will be eased, allowing resources to be further focused on longer term prevention in primary care which will be necessary for sustainability in the NHS. Health and Social Care Partnerships and community health hubs have a unique opportunity to shape and support this work to ensure that the local population has access to the services they require.

The transformation of primary care, the development of multidisciplinary hub teams and further collaboration between pharmacists and GP practices will fundamentally improve patient outcomes and reduce pressure at the pinch points in the current system.

We believe the current three year funding and new pharmacist posts gives an ideal opportunity to robustly evaluate the new ways of working with a view to ultimately providing a national strategic approach to holistic person centred care in the primary care setting .

How do we measure success?

Improvements in health outcomes can be difficult to measure in isolation and targets can inadvertently impinge negatively on other parts of the system but qualitative markers for pharmacist contributions should be agreed in partnership with the GP, pharmacist and patients to optimise care and to support a person centred approach. As well as improvements to quality of life, improved self- management and reductions in demands on social care, it is possible in some diseases to directly measure reductions in hospital admissions or measurable improvements in clinical markers. Audits in community pharmacy can measure impact on GP and A &E appointments.

Appendix 1 gives a good example of the contribution pharmacists make to the MDT and the positive impact that results from providing optimal pharmaceutical care.

Appendix 1

Collaborative working example - The Community Respiratory Team (CRT)

The CRT is a physiotherapy-led multidisciplinary team comprising of physiotherapists, nurses, occupational therapists, pharmacists, a dietician and health support workers with close links to respiratory nurses in the early supported discharge service (ESD), and a weekly sessional input from a respiratory physician consultant. The aim of the team is to optimise respiratory care delivered at home to patients with Chronic Obstructive Pulmonary Disease (COPD), improving community care and self-management of the condition and thus reducing the risk of hospital admissions.

Background

COPD is a complex disorder with many associated co-morbidities including cardio-vascular disease, depression, anxiety, diabetes and osteoporosis.

It has been recognised that patients with multiple morbidities are more likely to die at an earlier age, more likely to be admitted to hospital, have a poorer quality of life, and are more likely to be prescribed multiple drugs with consequent poor adherence.

Traditionally, disease management guidelines and patient pathways have been devised around single disease entities. This single disease centred approach has encouraged the development of multiple treatment regimens with increased potential for adverse drug interaction and poor adherence.

This suggests that there is potential to improve management and outcomes for many patients being treated for COPD and their co-existing long term conditions. As a result there is an increased need for integrated working at a practice level, with a strong suggestion that integrated working with community teams, including pharmacists, can improve outcomes, with the potential to reduce overall consultation times, increase patient satisfaction, reduce polypharmacy and reduce hospital admissions.

As part of the multidisciplinary CRT the remit of the pharmacist includes delivering comprehensive medication reviews to at risk patients.

Adverse reactions to medicines are implicated in 5-17% of hospital admissions and drug related side effects are linked closely to the number of medications a patient is taking.

In addition to a COPD medication review the pharmacist provides a holistic review to ensure all medication requirements are met, and potential harm from medication minimised. This can involve recommending changes to treatment, addition of new treatments for unmet needs or discontinuing treatments no longer required or causing adverse effects.

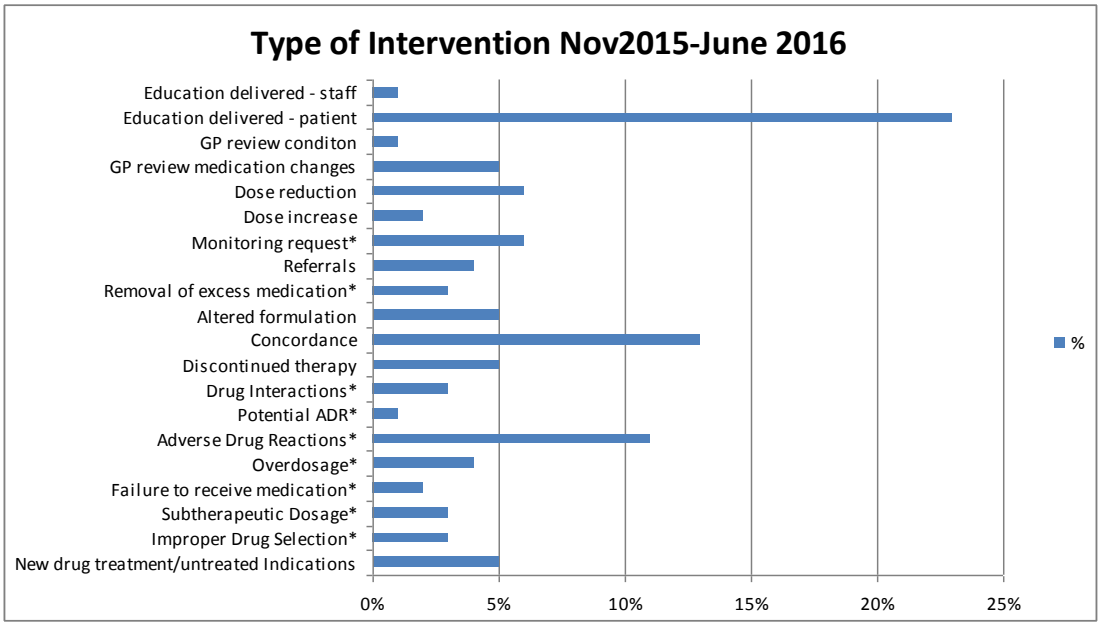
Results

Internal referral criteria were developed to help identify patients who would most benefit from the input of a pharmacist. A range of pharmaceutical care issues were identified, and have been recorded since November 2015.

The total number of referrals to the pharmacists since November 2015 can be seen in the table below:-

Date	Total referrals to pharmacy	Total referrals to CRT service	% of total service referrals made to pharmacy
Nov 2015 - June 2016	254	726	35

The types of interventions made by the pharmacists, and the percentage of each intervention is shown in the graph below. The interventions marked with an asterisk are the ones considered to be “high impact” interventions.



Recommendations are made to GPs, and these are either accepted or not accepted by the GPs. The table below shows the number of recommendations made by the pharmacists, and the number of those that are accepted by the GPs.

Date	Number of GP recommendations made	Number of recommendations accepted	% accepted
Nov 2015 – Jun 2016	261	228	89%

Patient feedback has also been extremely positive, with anecdotal comments such as:-

"They made sure I was taking my medicines properly and again nobody has ever sat down with my inhalers and medications and went over this stuff before. The service was so good, I understand my inhalers much better now"

"They even had a girl out to explain all my medication and the tablets. 100% information".

"I had a lady pharmacist come in and explain everything to me. She came in to make sure I was doing them properly. I was happy with that".

"When I had the Ventolin one you push down the pharmacist came and she put me onto the round steroid 500 one and that's been a lot of help as I can use that a lot better. I've found a benefit in that, all the years I've had that other one and I've never used it properly. I'm on antidepressants too and I'm not sure what I'm supposed to feel. I've not been sleeping well but it's got a bit better since I started the tablets. The pharmacist advised the doctor to prescribe these. I'm back in bed now and not on the settee as I had been lying on there for 6 weeks"

These results show how effective and important the role of the pharmacist is within the multidisciplinary team and is an excellent example of collaboration across the professions, each contributing differently to improving patient care.

Many of these patients would not have been reviewed in such a timely manner without the input of the CRT, and the necessary access to the patient health record .This could have led to hospital admissions due to poor control of their COPD through either excessive dosing/under-dosing, not using inhalers correctly, confusion over changes particularly after hospital discharge, and subsequent non-compliance due to side effects from medications.

(Thanks to Greater Glasgow and Clyde health board prescribing support unit for this example)