The NHS is under immense pressure to maximise productivity while improving quality of patient care and the patient ‘experience’. The government has focused on increasing skill mix and utilising current clinical and nonclinical staff to make best use of their skills and knowledge. This has happened across all specialities including pharmacy.

**Policy initiatives**

In 2008, the Department of Health White Paper *Pharmacy in England. Building on Strengths – Delivering the Future* highlighted the need for the development, contribution and skills of the community pharmacy team. The untapped clinical skills of pharmacists and the need to encourage their further professional development was recognised. This led to the provision of more training opportunities for pharmacists to become independent prescribers, pharmacists with special interests and consultant pharmacists.

In September 2014, the Royal Pharmaceutical Society (RPS) and the NHS Alliance concluded that pharmacists’ underused skills could play an important role in helping GP practices. They recognised there are many pharmacists already working in GP practices who have helped drive significant improvements in care provision.

In July 2015, NHS England released a £15 million scheme to fund, recruit and employ clinical pharmacists in GP practices. The aim of the scheme was to support GPs in areas with the biggest primary care workload and workforce pressures. Dr Maureen Baker, chair of the RCGPs said: “GPs are struggling to cope with unprecedented workloads and...
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patients in some parts of the country are having to wait weeks for a GP appointment yet we have a ‘hidden army’ of highly trained pharmacists who could provide a solution.³

The funding later doubled to £31 million in response to oversubscription for the scheme, and a total of 403 pharmacists were recruited to support 698 practices.⁴ A second wave of funding of over £100 million has recently been announced to provide a further 1500 pharmacists to work in English GP surgeries by 2020–21.⁵ The Scottish government has also funded 140 new clinical pharmacy posts.⁶

Clinical pharmacy posts in general practice should not be seen solely as a means of contributing towards relieving the GP workforce crisis. The roles should bring additional skills and knowledge on medicines optimisation to the general practice team, which are of a direct benefit to patients.

The Patients Association has recently conducted a survey of patients and carers to gather feedback about their understanding and experience of clinical pharmacists in GP practices. Out of 316 respondents, over 70% thought having a clinical pharmacist would be a positive addition to their care, and they welcomed the idea of having their medications reviewed by the practice-based pharmacist.⁷

However, it was recognised that work was needed to promote the role and presence of practice pharmacists. Only 49.1% of the respondents were aware that their practice had a pharmacist, 33.5% were not aware and 17.4% were unsure.⁷ Of the 39.9% of respondents who had made contact with the clinical practice pharmacist at their surgery, the reasons for the contact were varied, with medicines review and queries about medication being the most common reasons (see Figure 1).

Current roles
Currently, practice-based pharmacists mostly perform roles that assist GPs with non face-to-face activities. Examples of pharmacist roles include:

- Reauthorising repeat medication. Practice pharmacists can interpret blood results, BP readings and other clinically relevant information required to assess the efficacy and adverse effects of medicines to reach a decision on reauthorisation. They can review appropriateness of patients’ medications, identify problems such as drug-drug interactions and inappropriate doses, excessive durations, monitor tests and invite patients in for face-to-face reviews.
- Actioning clinical letters and reconciling medicines from a discharge summary. Secondary care to primary care discharge information often contains errors or unexplained changes.⁸ Patients may or may not continue the prescribed medicines during the transition. Practice pharmacists can process discharge letters, which are often complex, and update the patient’s medication accordingly. They can use their clinical skills to make sure any stopping or starting of treatment is correctly followed up and can communicate with the patient to confirm they understand any changes.
- Acute requests. Often nonclinical staff will forward requests for medicines not on repeat prescription to the duty GP to process. Pharmacists can process many of these requests and save the GP a great deal of time, improving the speed of turnaround for patients.
- Face-to-face and telephone medication reviews. GPs may identify patients who can be referred to the pharmacist for a review of their medication. The pharmacist can discuss and agree with patients what their treatment goals are, help with adherence issues, manage side-effects and titrate medication to optimal doses, for example.

In addition to the above everyday tasks, a practice pharmacist can assist the practice in achieving their Quality and Outcomes Framework (QOF) targets. Pharmacists can make a significant impact on the quality and cost effectiveness of prescribing by working with GPs to set up and audit adherence to practice formularies.

Future roles
The ageing demographics of the UK population has resulted in GPs having to manage a large number of patients with multimorbidities and resulting polypharmacy. Many of these patients are frail and sensitive to medicines-related problems.

The impact on both the health and social care of an ageing population is significant; projected spend on patients with long-term conditions is expected to

![Figure 1. A summary of the reasons why the respondents had contact with the clinical practice-based pharmacist. From: The Patients Association. Survey of Patients’ and Carers’ Views of Clinical Pharmacists Based in GP Practices, November 2016](prescriber.co.uk)
increase from £1.2 billion in 2008 to £2.8 billion by 2018. The inclusion of a pharmacist in the practice could provide a significant benefit for patients requiring medicines optimisation, such as those with complex prescription regimens, polypharmacy, prescribed high-risk drugs, frailty and barriers to adherence.10

The holistic nature of treating patients with multimorbidities and the clinical challenges that polypharmacy brings now require general practice to have an ‘expert’ in medicines optimisation to whom patients can be referred. Our experience suggests that clinical pharmacists managing complex polypharmacy provide beneficial patient outcomes, but high-quality research is lacking to prove the case.

Medication reviews are essential to ensure ongoing prescriptions remain suitable for the patient. However, GPs usually have insufficient time to perform an in-depth medication review that ensures all the patient’s medicines needs are met and the patient is happy, willing and able to take their medicines. In a pharmacist review, there is the luxury of having more time to perform the review and, in particular, to assess whether medical conditions are being under- or overtreated, or whether there are conditions not being treated at all. Spending more time with patients to provide shared care plans with more patient involvement could help to increase adherence to medicines and in turn reduce the number of unplanned hospital admissions.

The development of the advanced pharmacist practitioner may further strengthen the role of the pharmacist in general practice. This role can incorporate independent prescribing, clinical examination and other ‘advanced’ skills not historically associated with pharmacists. The advanced pharmacist practitioner is still a new role to UK healthcare and so it is difficult to assess the impact it will have. It is anticipated that advantages to the primary care team should reflect those seen by the addition of advanced nurse practitioners to the team.11

Unlike physician associates, advanced pharmacist practitioners are independent prescribers and can deal with complex cases of chronic disorders without the need to work under the direct supervision of a doctor. Physician assistants are likely to be more skilled in taking a medical history, physical examination and seeing patients with undifferentiated diagnosis under the supervision of a GP. When considering how best to enhance the multidisciplinary primary care team, GPs need to consider which role is likely to be of most benefit.

We are also seeing roles for pharmacists in bridging the transfer of care from secondary to primary care settings. These ‘interface pharmacists’ spend their time equally between primary care and hospital following patients, ensuring medication needs are communicated and any alterations, additions or omissions are highlighted to the necessary professionals. They have been responsible for creating referral pathways and improving discharge pathways in a bid to reduce errors commonly seen on transition between the settings.12

Training needs
The pharmacist’s four-year master’s degree plus one-year preregistration experience provides a solid foundation in clinical therapeutic knowledge, but the undergraduate degrees often lack sufficient clinical placements in which to develop student pharmacists’ skills. To be clinically effective in general practice, we believe that pharmacists should have, as a minimum, at least two years’ post-qualification experience and a clinical therapeutics diploma. Experience has shown that pharmacists from a hospital background have an easier transition into this clinical role than their colleagues in the community. However, community pharmacists bring their own unique set of skills (financial targets and customer focus are highly desirable) and an individual with the right aptitude and eagerness will flourish in this setting.

Independent prescribing, while ideal, is not necessarily essential; however, it certainly does make the pharmacist appreciate the dilemmas experienced by GPs in the more complex and challenging cases.

Advanced pharmacist practitioner courses are becoming more prevalent across the UK as universities identify the demand for pharmacists with knowledge and skills in areas such as clinical examination, pathophysiology, acute and critical care, paediatric clinical assessment and clinical investigations. Minor illness courses are also available, which will teach a pharmacist how to take a history, perform a clinical examination and provide a sound basis for a range of common conditions; these lend themselves well to pharmacists wishing to take on a triage or urgent care role in the practice.

GPs may need to support pharmacists to develop practice roles very much like they do for GP registrars. In particular, pharmacists need in-house experience to develop the consultation and examination skills necessary to monitor the effect of medicines, eg blood pressure and respiratory assessments.

Summary
The GP workforce crisis has driven a re-examination of the skill mix in general practice. Our experience is that practice pharmacists can pick up about 20% of a GP workload, ie the proportion used for medicines-related activities. Due to the increasing numbers of patients on complex polypharmacy and the shift of high-risk prescribing to general practice, we argue that having a clinical pharmacist as part of the modern general practice team will soon be essential.

References
4. NHS England. More than 400 pharmacists to be recruited to GP surgeries by next year.

Declaration of interests
None to declare.

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POEMs

Bare arm best for BP measurement

Clinical question:
What is the best way to measure blood pressure?

Bottom line:
Bare those arms, folks. To get the most accurate measure, let patients chill for a few minutes, and then measure their blood pressure on a completely bare arm. Does a difference of 4mmHg systolic and 6mmHg to 7mmHg diastolic matter? It might; especially when deciding whether to add a second or third drug. Also, remember to confirm office-based blood pressures with an out-of-office measurement (either ambulatory blood pressure monitoring or home blood pressure measurements), as many patients have white coat hypertension. (LOE = 2c)

Reference:

Study design: Cross-sectional. Funding source: Self-funded or unfunded. Setting: Outpatient (primary care).

Synopsis:
It is important that we measure blood pressure in our offices in the same way it is done in studies of hypertension diagnosis and treatment. Otherwise, we risk misclassifying patients and may either overtreat or undertreat them. This simple cross-sectional study recruited 186 adults in a Japanese primary care clinic and in two adult daycare facilities. Blood pressure was measured using an automated cuff in three conditions: a completely bare arm, an arm covered by a sleeve no more than 1mm thick to the wrist (a cardigan with a 1mm thick sleeve was provided, if necessary), or an arm with the sleeve rolled up over the elbow. All patients were first asked to sit in a chair for five minutes prior to the measurement, with their arm supported and level. The researchers systematically varied the order in which blood pressure was measured.

For each condition, the final blood pressure was the average of three measurements. The participants had a mean age of 75 years, 62% were female, and approximately 63% were hypertensive. The mean blood pressures were 129/67mmHg taken on a bare arm, 133/73mmHg on a fully sleeved arm, and 133/74mmHg on an arm with the rolled-up sleeve. The difference persisted after adjusting for age and measurement order in an ANOVA model. It is also interesting that the mean blood pressure decreased from the first measurement (135/74mmHg) to the second measurement (131/71mmHg) and to the third measurement (129/70mmHg).

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