

Clinical pharmacists in primary Care: evidence of impact

Overview

1 Employing clinical pharmacists in GP practices | BMA

Having a clinical pharmacist on the team can ease workload, reduce waiting times and improve effectiveness.

By employing clinical pharmacists, many practices have been able to:

- reduce waiting times for appointments
- increase access to healthcare
- improve screenings and diagnosis of chronic and common ailments
- reduce A&E admissions
- reduce the wastage and overuse of medicines.
- save GP locum costs.

<https://www.bma.org.uk/advice-and-support/gp-practices/employment-advice/employing-clinical-pharmacists-in-gp-practices>

Clinical pharmacists | NHS England

Clinical pharmacists work as part of the general practice team to improve value and outcomes from medicines and consult with and treat patients directly. This includes providing extra help to manage long-term conditions, advice for those on multiple medicines and better access to health checks. The role is pivotal to improving the quality of care and ensuring patient safety.

Having clinical pharmacists in GP practices means that GPs can focus their skills where they are most needed, for example on diagnosing and treating patients with more complex conditions. This helps GPs to manage the demands on their time.

<https://www.england.nhs.uk/gp/expanding-our-workforce/cp-gp/>

Reports

2 Mann, C., Anderson, C., Avery, A. J., Waring, J., & Boyd, M. (2018) | Clinical Pharmacists in General Practice: Pilot Scheme: Independent Evaluation Report: Full Report | NHS England

This report looks to identify the potential impact of clinical pharmacists in general practice, to describe how they are likely to affect working practices and how they may improve service delivery related to medicines both within the medical practice and externally with Clinical Commissioning Groups (CCGs), community pharmacy and hospital pharmacy.

The report, which includes a number of case studies seeks to answer the following:

- *What is the impact of pharmacists in general practice on patients' health outcomes?*
- *What is the patient perspective on pharmacists working in GP practices?*
- *What is the general practitioner perspective on clinical pharmacists working in GP practices?*
- *What is the pharmacist perspective on clinical pharmacists working in GP practices?*
- *What are the barriers preventing successful implementation of this role?*
- *What are the facilitators to ensure successful implementation of this role?*
- *What are the costs and effects of the Clinical Pharmacist role?*

The report concludes that clinical pharmacists have made a unique and valuable contribution to the primary care skill mix. Pharmacists contribute significantly to patient safety, bring medicines and prescribing expertise, support with prescribing tasks, support for patients with long term conditions including support for healthy lifestyles. They have improved medication knowledge in the wider clinical team leading to the prospect of overall improvements in care related to medicines. The introduction of pharmacists has also led to increased capacity in practices.

Full report: [Clinical Pharmacists in General Practice: Pilot Scheme: Independent Evaluation Report](#)

Related journal article: [Evaluation of the NHS England Phase 1 pilot: clinical pharmacists in general practice](#) | Boyd, M. et al. (2019) | International Journal of Pharmacy Practice, 27 (Suppl. S1), pp. 4–5

Journal articles

3. Mann C., Anderson, C., & Boyd, M. (2022) | The role of clinical pharmacists in general practice in England: Impact, perspectives, barriers and facilitators | Research in Social and Administrative Pharmacy | Volume 18, Issue 8, pp.3432-3437 | <https://doi.org/10.1016/j.sapharm.2021.10.006>

This paper examines the experience of implementing the clinical pharmacist (CP) in general practice role, in relation to impact, perspectives, barriers and facilitators.

Pharmacists are motivated to develop clinical skills and make a positive impact on patients. Data suggests that clinical pharmacists have a positive impact, in particular on health outcomes related to polypharmacy and long-term conditions.

GPs have a broadly positive response to the CPs, in particular when they save time and money for the practice. However, GPs have to invest time in mentoring and building relationships to realise the benefits of the role.

Patients appreciate the CP role for increasing access to a practitioner and providing expertise in medications.

There are some barriers to successful implementation of the role, including policy and funding, lack of clarity around the role and lack of quantitative and economic validation of the role. Facilitators of success include supportive working relationships, integration and mentoring.

Full paper: [The role of clinical pharmacists in general practice in England: impact, perspectives, barriers and facilitators](#)

4. Barnes, E. et al. (2017) | New roles for clinical pharmacists in general practice | Prescriber | April 2017, pp. 26 – 29.

Since 2015, pharmacists have been playing an increasingly essential role in general practice, not only by reducing the workload of GPs but by bringing additional skills and knowledge on medicines optimisation, particularly in cases of complex polypharmacy.

The authors of this paper suggest that practice pharmacists can pick up about 20% of a GP workload, i.e. 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, the authors argue that having a clinical pharmacist as part of the modern general practice team will soon be essential.

Full paper: [New roles for clinical pharmacists in general practice](#)

5. Alshehri, A. A. et al. (2021) | Evaluating the role and integration of general practice pharmacists in England: a cross-sectional study | International Journal of Clinical Pharmacy | 43(6) pp.1609-1618 | doi: <https://doi.org/10.1007%2Fs11096-021-01291-6>

Since 2015, NHS England has facilitated the recruitment of pharmacists in general practice to reduce workload of general practitioners. The role of pharmacists is therefore expected to become more clinical and patient oriented. However, little is known about the current roles performed and the integration of GP pharmacists.

The objective of this study was to assess the role performed by GP pharmacists and their integration into practice exploring facilitators and barriers to integration.

The authors conclude that practice pharmacists are fulfilling a wide range of clinical and non-clinical roles in England. Findings highlight relatively a satisfactory level of pharmacists' integration into practice and shed the light on their integration issues. These findings could be significant for the development of future roles of pharmacists in GP.

Impacts on practice:

- The findings of this study suggest that pharmacists' led clinical roles including face-to-face medication reviews, medicine reconciliation and telephone support for patients have clearly evolved across the general practice in England
- Pharmacists identified supportive practice and the presence of an experienced pharmacist in the workplace as facilitators to integration into the general practice
- Lack of understanding of the pharmacists' role by the practice team, contrasting cross-sector professional experience, lack of structured training and supervision were identified as barriers to pharmacists' integration into practice

Full paper: [Evaluating the role and integration of general practice pharmacists in England: a cross-sectional study](#)

5. Mills T. et al. (2022) | Integration of a clinical pharmacist workforce into newly forming primary care networks: a qualitatively driven, complex systems analysis | BMJ Open | 3; 12(11): e066025 | doi: <https://doi.org/10.1136/bmjopen-2022-066025>

The introduction of a new clinical pharmacist workforce via Primary Care Networks (PCNs) is a recent national policy development in the National Health Service in England. This study elicits the perspectives of people with responsibility for local implementation of this national policy package. Attention to local delivery is necessary to understand the contextual factors shaping the integration of the new clinical pharmacy workforce, and thus can be expected to influence future role development.

Findings suggest that processes of PCN formation and clinical pharmacist workforce integration were closely intertwined, with underpinning decisions taking place under conditions of considerable uncertainty and workforce pressures.

National policy decisions that required General Practitioners to form PCNs at the same time as they integrated a new workforce risked undermining the potential of both PCNs and the new workforce. PCNs require time and support to fully form and integrate clinical pharmacists if successful role development is to occur. Efforts to incentivise delivery of PCN pharmacy services in future must be responsive to local capacity.

Full paper: [Integration of a clinical pharmacist workforce into newly forming primary care networks: a qualitatively driven, complex systems analysis](#)

6. Stone M.C. & Williams H.C. (2015) | Clinical pharmacists in general practice: value for patients and the practice of a new role | British Journal of General Practice | 65 (634) pp.262-3 | doi: <https://doi.org/10.3399%2Fbjgp15X685033>

This article suggests that community pharmacy can be part of a solution to the current and future demands facing the NHS: from supporting patients to help them get the most from their medicines,

fielding some of the many self-limiting minor ailment consultations, to driving the prevention agenda through the Healthy Living Pharmacy concept.

The authors conclude that the clinical pharmacist role, when integrated into the medical practice team, provides a valuable resource to patients and a complementary skill set to fellow clinicians.

Full paper: [Clinical pharmacists in general practice: value for patients and the practice of a new role](#)

7. Anderson C. et al. (2019) | The role of pharmacists in general practice: A realist review | Research in Social & Administrative Pharmacy | 15(4) pp.338-345 | doi: <https://doi.org/10.1016/j.sapharm.2018.06.001>

This review was carried out to inform the evaluation of the clinical pharmacists in general practice pilot scheme. The review attempts to explain the how pharmacists working in general practice is being implemented in the UK and beyond, what works well, what does not work so well and everything in-between.

The pharmacist working in general practice is still a relatively new concept and further more in-depth research is still required. However, from this small number of studies, the common barriers and facilitators to the implementation can be identified. The review also lists mechanisms that will be needed to ensure the effective implementation of this initiative.

Full paper: [The role of pharmacists in general practice: A realist review](#)

Bradley, F. et al. (2018) | Evolution of the general practice pharmacist's role in England: a longitudinal study | 68 (675): e727-e734. | doi: <https://doi.org/10.3399/bjgp18X698849>

The aim of this study was to investigate the role evolution and integration of clinical pharmacists in general practice in England.

An online longitudinal survey was administered to all phase 1 GPPTP registrants ($n = 457$) at T1 and T2, measuring their perceived knowledge, skill, and confidence, activities performed, and perceptions of practice integration, environment, and support.

Perceived knowledge, skill, and confidence levels increased significantly from T1 to T2 for all areas, except for managing acute or common illness. Scope of practice increased significantly, particularly in patient-facing activities. Sharing office space with administrative staff was common and 13% of participants reported having no designated work area. Perceived integration at T2 was fairly high but GP clinical support was 'too little' according to one-third of participants.

Findings show not only patient-facing role expansion, but also practice environment and support issues. Pharmacists may appreciate more GP time invested in their development. Practices need to be realistic about this support and not expect an immediate reduction in workload.

Full paper: [Evolution of the general practice pharmacist's role in England: a longitudinal study](#)

8. Chopra, E. et al. (2022) | Clinical pharmacists in primary care general practices: evaluation of current workforce and their distribution | Journal of Pharmaceutical Policy and Practice | volume 15, Article number: 101 | doi: <https://doi.org/10.1186/s40545-022-00483-3>

General practices in primary care across England are increasingly employing clinical pharmacists to help tackle the workforce crisis and alleviate pressure. Clinical pharmacists can provide administrative and clinical duties, including non-medical prescribing, advice on polypharmacy and medicines optimisation. The aim of this study was to investigate the distribution of clinical pharmacists in general practice across England, and explore the relationship between the distribution and regional demography.

The study used publicly available government database from various sources pertaining to primary care general practice workforce and population demographics of England.

Approximately one in five general practices in England have access to a clinical pharmacist. Further research is needed to ensure wider and equitable distribution based on workforce needs and practice population demography.

Full paper: [Clinical pharmacists in primary care general practices: evaluation of current workforce and their distribution](#)

9. Johnson C. F. et al. (2022) | New ways of working releasing general practitioner capacity with pharmacy prescribing support: a cost-consequence analysis | Family Practice | 19; 39(4) pp.648-655 | doi: <https://doi.org/10.1093/fampra/cmab175>

General practice in the United Kingdom is experiencing a workforce crisis. Greater multidisciplinary working, including more general practice pharmacists, is seen as part of the solution. However, it is unknown what impact and cost-consequences that pharmacists may have in freeing general practitioner (GP) capacity.

The objective of this study was to evaluate the cost-consequences of additional pharmacists in releasing GP capacity.

When compared with employing extra non-salaried GPs this required an estimated additional investment of £16.73 per h to free GP capacity. This achieved a sustainable 47% reduction in GP time spent on key prescribing activities; equating to 4.9 h per practice per week. No significant step changes in locality safety and quality prescribing measures, and no negative effects on locality-level prescribing cost-efficiency work were observed.

The authors conclude that appropriately resourced general practice pharmacy teams delivered prescribing cost-efficiencies as well as sustainably freeing GP capacity by performing key prescribing activities.

Full abstract: [New ways of working releasing general practitioner capacity with pharmacy prescribing support: a cost-consequence analysis](#)

Full paper available on request at andrew.carrick1@nhs.net

10. Tan, E.C.K. et al. (2014) | Pharmacist services provided in general practice clinics: A systematic review and meta-analysis | Research in Social and Administrative Pharmacy | Volume 10, Issue 4 pp. 608-622 | doi: <https://doi.org/10.1016/j.sapharm.2013.08.006>

The aim of this study was to review the effectiveness of clinical pharmacist services delivered in primary care general practice clinics.

The results of meta-analyses favoured the pharmacist intervention, with significant improvements in blood pressure, glycosylated haemoglobin, cholesterol and Framingham risk score in intervention patients compared to control patients.

Pharmacists co-located in general practice clinics delivered a range of interventions, with favorable results in various areas of chronic disease management and quality use of medicines.

Full abstract: [Pharmacist services provided in general practice clinics: A systematic review and meta-analysis](#)

Full paper available on request at andrew.carrick1@nhs.net

11 Hampson N, & Ruane S. (2019) | The value of pharmacists in general practice: perspectives of general practitioners-an exploratory interview study | International Journal of Clinical Pharmacy | 41(2):496-503 | doi: <https://doi.org/10.1007/s11096-019-00795-6>

This study aimed to explore the perspectives of GPs with experience of fully funding a pharmacist in general practice, focussing on the value that GPs place on the role of the pharmacist.

GPs valued the medication expertise of the pharmacist, which enabled the pharmacists to unburden the GPs of workload. GPs also valued the capability of pharmacists to adapt their role to meet the changing needs of their individual practice. GPs supported the role of pharmacists in general practice but identified funding as a possible barrier to wider uptake of the role.

This study highlights the value of the medication-related expertise which pharmacists bring to the team. Heterogeneity in the role is necessary to meet the needs of individual practices. Sustained funding was identified as a possible barrier to wider implementation of the role.

Full abstract: [The value of pharmacists in general practice: perspectives of general practitioners-an exploratory interview study](#)

Full paper available via NHS Athens or on request at andrew.carrick1@nhs.net

12 Duncan P. et al. (2020) | Barriers and enablers to collaborative working between GPs and pharmacists: a qualitative interview study | British Journal of General Practice | 27; 70 (692): e155-e163 | doi: <https://doi.org/10.3399/bjgp20x708197>

Many UK GP practices now employ a practice pharmacist, but little is known about how GPs and pharmacists work together to optimise medications for complex patients with multimorbidity.

The aim of this paper was to explore GP and pharmacist perspectives on collaborative working within the context of optimising medications for patients with multimorbidity.

GPs from surgeries that employed a pharmacist tended to value their expertise more than GPs who had not worked with one. Three key themes were identified: resources and competing priorities; responsibility; and professional boundaries. GPs valued pharmacist recommendations that were perceived to improve patient safety, as opposed to those that were technical and unlikely to benefit the patient.

A good working relationship between the GP and pharmacist, where each profession understood the other's skills and expertise, was key. The importance of face-to-face meetings and feedback should be considered in future studies of interdisciplinary interventions, and by GP practices that employ pharmacists and other allied health professionals.

Full paper: [Barriers and enablers to collaborative working between GPs and pharmacists: a qualitative interview study](#)

13. Maskrey M. et al. (2018) | Releasing GP capacity with pharmacy prescribing support and New Ways of Working: a prospective observational cohort study | British Journal of General Practice | 68, (675): e735-e742 | doi: <https://doi.org/10.3399/bjgp18x699137>

General practice in the UK is experiencing a workforce crisis. However, it is unknown what impact prescribing support teams may have on freeing up GP capacity and time for clinical activities.

In this observational cohort study, GPs recorded the time they spent dealing with special requests, immediate discharges, outpatient requests, and other prescribing issues for 2 weeks prior to the study and for two equivalent periods during the study. Specialist clinical pharmacists performed these key prescribing activities to release GP time and Read coded their activities.

Results showed that GP time spent on key prescribing activities significantly reduced by 51% (79 hours) per week, equating to 4.9 hours per week per practice. The additional clinical pharmacist resource was well received and appreciated by GPs and practices. As well as freeing up GP capacity, practices and practitioners also identified improvements in patient safety, positive effects on staff morale, and reductions in stress. Prescribing support staff also indicated that the initiative had a positive impact on job satisfaction and was considered sustainable, although practice expectations and time constraints created new challenges.

The study concludes specialist clinical pharmacists are safe and effective in supporting GPs and practices with key prescribing activities in order to directly free GP capacity. However, further work is required to assess the impact of such service developments on prescribing cost-efficiency and clinical pharmacist medication review work.

Full paper: [Releasing GP capacity with pharmacy prescribing support and New Ways of Working: a prospective observational cohort study](#)

14. Ryan K. et al. (2018) | Pharmacists in general practice: a qualitative interview case study of stakeholders' experiences in a West London GP federation | BMC Health Services Research | 2; 18(1): 234 | doi: <https://doi.org/10.1186/s12913-018-3056-3>

Increased patient demand for healthcare services coupled with a shortage of general practitioners necessitates changes in professional roles and service delivery. In 2016, NHS England began a 3-year-pilot study of pharmacists in general practice. The aim of this exploratory, descriptive interview study was to explore the experiences of stakeholders in eight general practices in the Ealing GP Federation, West London, where pharmacy services have been provided for several years.

Participants reported the need for time to develop and understand the various roles, develop communication processes and build inter-professional trust. Once these were established, however, experiences were positive and included decreased workloads, increased patient safety, improved job satisfaction, improved patient relationships, and enhanced cost savings. Areas for improvement included patients' awareness of services; pharmacists' training; and regular, onsite access for practice staff to the pharmacy team.

Recommendations are made for the development of clear role definitions, identification of training needs, dedication of time for team building, production of educational materials for practice staff members and patients, and provision of on-site, full-time pharmacy services. Future work should focus on evaluation of various models of employing pharmacy teams in general practice; integration of pharmacists and pharmacy technicians into multidisciplinary general practice teams; relationships between local community pharmacy and general practice personnel; and patients' service and information needs.

Full paper: [Pharmacists in general practice: a qualitative interview case study of stakeholders' experiences in a West London GP federation](#)

15. Komwong D. et al. (2018) | Clinical pharmacists in primary care: a safe solution to the workforce crisis? | Journal of the Royal Society of Medicine | 111(4): pp.120-124. doi: <https://doi.org/10.1177/0141076818756618>

Substantial general practitioner workforce growth is unlikely to be achievable in the near future, making consideration of alternative models of primary care essential. This article discusses how pharmacists integrated into general practices can be seen to offer a practical solution, with the potential to reduce general practitioner workload and improve access, while at the same time improving quality.

Full paper: [Clinical pharmacists in primary care: a safe solution to the workforce crisis?](#)

16. Hampson, N. (2018) | Getting started with clinical pharmacists in general practice | Prescriber | Volume 29 (3) pp.25 – 28

The role of the clinical pharmacist in general practice has been evolving on a small scale for many years. The launch of the NHS England Clinical Pharmacists in General Practice programme has resulted in a rapid increase in the number of pharmacists working in general practice in recent years. This article draws on the existing published evidence base and the personal experience of a practice-based pharmacist to provide tips and advice for practices considering taking on a pharmacist and for pharmacists thinking of moving to this new role.

Full paper: [Getting started with clinical pharmacists in general practice](#)

17 Akhtar, N. et al. (2022) | Evaluation of general practice pharmacists' role by key stakeholders in England and Australia | Journal of Pharmaceutical Health Services Research | Volume 13 pp.31 – 40 | doi: <https://doi.org/10.1093/jphsr/rmac002>

This study aims to measure expectations and perceptions about the general practice pharmacists' (GPPs) roles in England and Australia.

From the transcribed data, the main themes extracted were initial expectations and reservations by key stakeholders, barriers and facilitators, working collaboration, GPPs' skillset, views on key performance indicators (KPIs), patients' feedback and the stakeholders' views on the future of GPPs in England and Australia. The participants from both England and Australia did acknowledge the growing role of GPPs. Few concerns were raised by some participants about aspects like role description, training pathways, prescribing protocols and funding. Despite these concerns, all participants strongly believed that by taking steps to overcome main barriers like funding in Australia and training pathways in England, GPPs could be an ideal professional to bridge the gaps in the general practice framework.

Based on the comparative data, recommendations were made on funding structure, role description, prescribing qualification, training pathways and KPIs. These recommendations can be used as guidance for both England and Australia while implementing relative policies in these countries.

Full paper: [Evaluation of general practice pharmacists' role by key stakeholders in England and Australia](#)

18 Mann, C. et al. (2022) | Perspectives of pharmacists in general practice from qualitative focus groups with patients during a pilot study | BJGP Open | 6 (2) doi: <https://doi.org/10.3399/BJGPO.2021.0112>

Utilising skill mix in general practice is proposed as a solution to the demand–supply issue.

Pharmacists can play an important role in this context, leading to an increase in training and funding for independent prescriber roles.

This paper aimed to answer the question: *what is the patient perspective of pharmacists in patient-facing roles in general practice in the UK?*

While the public were aware of the primary care crisis, they were less well informed about potential solutions. Data showed patients primarily sought access to a clinician over expressing a preference for any type of clinician. Low awareness was shown about the pharmacist role and there was initial confusion about it. Acceptability levels were high. It was found that pharmacists added value and provided an expert medication-focused service, which had a positive impact on medicines use. Patients reported benefit from longer appointments, feeling they were not rushed, and that all their conditions were being considered holistically. They trusted pharmacists as experts in medication and trust was consolidated over time. Regular coaching from a pharmacist could lead to improved patient self-monitoring and self-care.

The authors conclude that Pharmacists can add value to the general practice team and this is recognised by patients.

Full paper: [Perspectives of pharmacists in general practice from qualitative focus groups with patients during a pilot study](#)

19 Bush J. et al. (2018) | Clinical pharmacists in general practice: an initial evaluation of activity in one English primary care organisation | International Journal of Pharmacy Practice | 26 (6) pp.501-506 | doi: <https://doi.org/10.1111/ijpp.12426>

This aim of this research was to characterise the breadth and volume of activity conducted by clinical pharmacists in general practice in Dudley Clinical Commissioning Group (CCG), and to provide quantitative estimates of both the savings in general practitioner (GP) time and the financial savings attributable to such activity.

Over the 9-month period for which data were available, the 5.4 whole time equivalent clinical pharmacists operating in GP practices within Dudley CCG identified 23 172 interventions. Ninety-five per cent of the interventions identified were completed within the study period saving the CCG in excess of £1 000 000. During the 4 months for which resource allocation data were available, the clinical pharmacists saved 628 GP appointments plus an additional 647 h that GPs currently devote to medication review and the management of repeat prescribing.

This research suggests that clinical pharmacists in general practice in Dudley CCG are able to deliver clinical interventions efficiently and in high volume. In doing so, clinical pharmacists were able to generate considerable financial returns on investment.

Full paper: [Clinical pharmacists in general practice: an initial evaluation of activity in one English primary care organisation](#)

20 Hasan Ibrahim A.S. et al. (2022) | General practitioners' experiences with, views of, and attitudes towards, general practice-based pharmacists: a cross-sectional survey | BMC Primary Care 14; 23(1): 6 | doi: <https://doi.org/10.1186/s12875-021-01607-5>

There is limited United Kingdom literature on general practice-based pharmacists' (PBPs') role evolution and few studies have explored general practitioners' (GPs') experiences on pharmacist integration into general practice. Therefore, this study aimed to investigate GPs' experiences with, views of, and attitudes towards PBPs in Northern Ireland.

The majority of GPs (> 85%) displayed largely positive attitudes towards collaboration with PBPs. Most GPs agreed/strongly agreed that PBPs will have a positive impact on patient outcomes (95.0%) and can provide a better link between general practices and community pharmacists (96.1%). However, 24.8% of GPs were unclear if the PBP role moved community pharmacists to the periphery of the primary care team.

Most GPs had positive views of, and attitudes towards, PBPs. The findings may have implications for future developments in order to extend integration of PBPs within general practice, including the enhancement of training in clinical skills and decision-making.

Full paper: [General practitioners' experiences with, views of, and attitudes towards, general practice-based pharmacists: a cross-sectional survey](#)