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Clinical Pharmacists in General Practice: Pilot scheme

Independent Evaluation Report: Executive Summary

June 2018

Authored by

Dr. Claire Mann, Prof. Claire Anderson, Prof. Anthony J. Avery,

Prof. Justin Waring and Dr. Matthew J. Boyd

The University of Nottingham

Funded by

NHS England

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Acknowledgements

The project team wish to express their gratitude to Dr Chris Freeman (University of Queensland, Australia) and Dr Helen Boardman (University of Nottingham) for their contributions and advice to the project team. Mr Antony Chuter, patient representative, for his challenging cross examination and guidance in project meetings. The staff and students of the University of Nottingham Division of Pharmacy Practice and Policy for their assistance with data acquisition and analysis. Mrs Loraine Buck for her administrative and extensive transcribing support and the NHS England Clinical Pharmacists Working Group for their direction.

The evaluation team are grateful to all those who took the time to contribute to this evaluation.

Introduction

Overview

This executive summary presents a digest of our research. The full report includes a deeper overview of the research questions and how they were answered including a review of current literature, methods, breakdown of data by type and an overview of the findings responding to the research questions. This is followed by appendices (A-F) of underpinning data by type and includes in depth case study data (Appendix E).

This evaluation aims to provide an overview of the Phase 1 pilot to integrate clinical pharmacists into general practice and identifies how best to implement and evaluate the final roll out. Within this process we identify the potential impact of the clinical pharmacists, 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. Recommendations are provided at the end of each section and summarised at the end of the report.

The objectives of this evaluation are to:

- Describe a range of activities undertaken by clinical pharmacists and their perceived impact on medicines optimisation
- Describe medical practice staff satisfaction with the innovation and likelihood of continuation beyond pilot phase
- Identify the potential costs and effects of clinical pharmacists working in general practice from an NHS perspective e.g. GP and practice staff workload, medicines and monitoring costs and use of secondary care services such as emergency and urgent care
- Identify and describe the barriers and facilitators associated with their effective integration and delivery of role and service
- Develop and test a generic model of effectively capturing the costs and effects of clinical pharmacist delivered services
- Identify and describe activities undertaken to enhance collaborative working between hospital pharmacy, community pharmacy and general practice to improve service delivery and patient care

Scheme outline

The General Practice Forward View (GPFV, NHS England, 2016) outlined the measures that NHS England are taking to develop general practice. The report suggests that a range of healthcare professionals can become an integral part of the practice team, in much the same way as nurses have and emphasises the inclusion of pharmacists to contribute to patient care.

'Pharmacists remain one of the most underutilised professional resources in the system and we must bring their considerable skills in to play more fully.' (NHS England, 2016)

The GPFV outlined an investment of £31million to pilot 470 clinical pharmacists in over 700 practices. This is to be supplemented by new central investment of £112 million to extend the programme. This

will result in over 2000 clinical pharmacists in general practice by 2020, a ratio of one clinical pharmacist per 30,000 patients. (NHS England, 2016)

NHS England funded this one year evaluation of the initial pilot phase of the 'Clinical Pharmacists in GP Practices' scheme.

The 'Clinical Pharmacists in GP Practices' scheme was launched as a pilot scheme in 2016-17, with further rollout phases. NHS England reports that in February 2017 the pilot scheme had funded 89 applications from federations who in turn recruited over 490 pharmacists (greater than 450 whole time equivalent (WTE)) to work across more than 650 GP practices. (Sharma, 2018)

The first scheme was launched as a pilot phase and there are some minor differences between this initial pilot scheme and later iterations. Most notable differences between the operationalisation of the pilot scheme (phase 1) and the next iteration (phase 2) are improvements in the management of the scheme with a clear clinical leadership role, clearly defined ratios for sites and mentoring, and a changed approach to reporting KPIs.

Each site application was at a level of scale, including a group of GP practices or other sites, referred to as a 'federation' site. At each 'federation' site a nominated person led the bid, and developed the scheme locally. The bids were assessed by regional teams. In the pilot, practices could apply for 60% of costs in year 1, 40% in year 2 and 20% in year 3. Practices were required to meet the remaining costs themselves, although some CCGs have put in additional funding as well to reduce the initial amount payable by practices. Some additional funding is provided on a case by case basis towards the management of the scheme. Over the course of the 3 year funded implementation period it is envisaged that practices will recognise the value of the work done by the pharmacists and cover the full cost of their employment.

Health Education England (HEE) procured the education and training programme which was delivered by the Centre for Pharmacy Postgraduate Training (CPPE) for pharmacists in this pilot wave, additional training was sub contracted to several partners including Red Whale, HEIs, OSCA (Coaching for Health), NICE. Further funding and time in the scheme is dedicated to upskilling clinical pharmacists without existing qualifications to become independent prescribers. Independent prescribing training is undertaken at local higher education institutions with underpinning mentoring provided by practices.

Methods

The diagram presented in figure 1 summarises the research methods used and data collected which informed this evaluation. These include a literature review, SWOT analysis with external stakeholders, analysis of nationally collected routine service data, quantitative data from a survey of scheme participants and qualitative data from in-depth interviews with scheme participants. The mixed methods approach taken to this evaluation research allows specific focusing and testing of hypothesis whilst also allowing for examination of the breadth and depth of a phenomena to learn more about them. This is crucial to facilitate a wide ranging research informed evaluation which can both map both 'what' has happened but also develop understanding of 'how' the scheme is experienced by the key participants – healthcare staff, patients and the wider healthcare community.

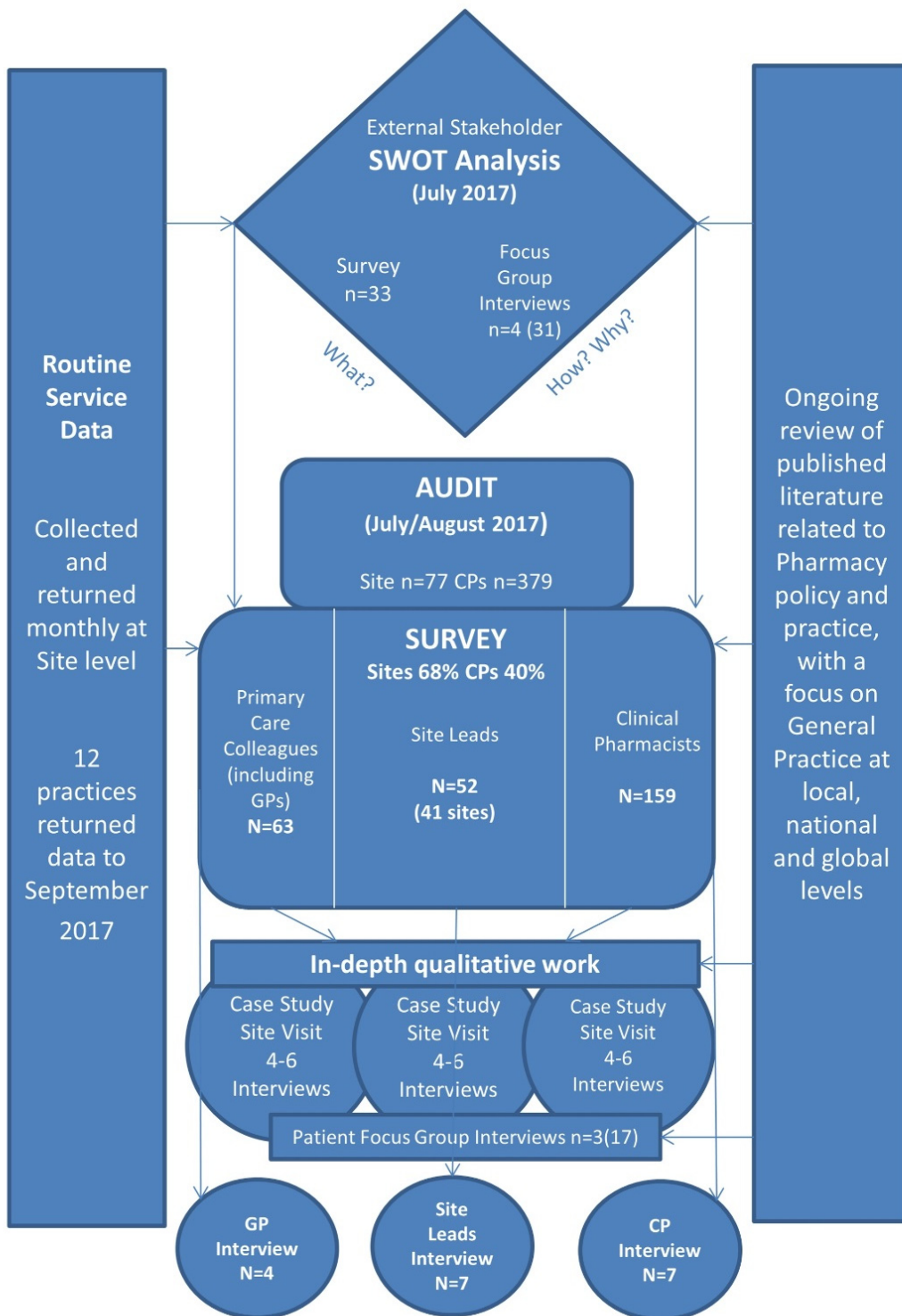


Figure 1. Summary of the evaluation methodology and number of data collected

Summary findings & discussion

The full report contains a wide range of data collected throughout the evaluation. The key findings from this data are summarised here under four key headings:

- Impact of the role
- Communications and managing expectations
- Sustainability and future models
- Long term development and training

Impact

Data presented shows the important impact that the Clinical Pharmacists in General Practice pilot scheme has had on a General Practice, Pharmacists and patients. Three full case studies are presented (Appendix E) which position this data within its local context and gives an insight into the day to day working and impact at a site level. The following summary outlines the key impact of the scheme on General Practice (including GPs), on Pharmacists, and on patients.

Impact on General Practice

The role has had a wide ranging impact on the work in General Practice, most notably on contributing to improved capacity and changes in workload, and in medicines optimisation and safety.

Capacity and workload

There is evidence that the CP role contributes to an increase in the capacity of General Practice to see patients, at a time when demand is high and recruitment of GPs is difficult. Data from the survey showed 'improved capacity' was cited as the main benefit of the scheme by pharmacists and site leads. Data from SWOT analysis showed this as a perceived strength of the scheme, by a wide range of external stakeholders, at a practice and patient level. This is reinforced by qualitative data.

There is evidence that the capacity released by the CP role benefits the General Practitioner. Several case study sites reported specifically increasing GP capacity (Site A two appointments per GP session, Site B one hour of GP time per day) as a result of the CP role.

Survey data from CPs shows that a significant proportion of CP time is usually spent conducting medication reviews, servicing prescription requests and queries and managing discharge. This is underpinned by qualitative data, for example at site E, CPs across all federation sites work on a centrally coordinated discharge management process. Routine service data (Appendix B) shows that these tasks, which would usually be conducted by the GP, allow their workload to become more focused.

At Case Study site B there is evidence of the CP role contributing to a complete change in their workload management between acute and long-term care, with the majority of long-term care provided by nurses and pharmacists, allowing GPs to manage acute care. (Appendices E & F)

The CP is seen as a valuable expert addition to the Multi-Disciplinary Team (MDT) with a range of colleagues suggesting that they learn from the CPs and their unique set of skills (Appendix F).

Findings from the qualitative and routine service data also demonstrates that the CPs contribute to improvements in medicines management and care of long-term conditions which can lead to increased achievement of targets at multiple levels (National, local, practice).

Medicines optimisation and safety

There is evidence of the CP role contributing to medicines optimisation in a variety of ways. This has cost saving and safety implications and can help to increase achievement of national, local and practice level targets. For example there is evidence of CPs implementing previously unimplemented NICE guidelines for prescribing for particular long term conditions, CPs carrying out CCG led prescribing projects and conducting local federation or practice level audits. These strategic approaches are supplemented by day to day examples of medicines optimisations directly with patients through medicines and long term conditions reviews.

'In a medication review, chronic disease review, I would say most patients we see we make some sort of intervention... Be it very small to stop the meds, changing meds.'

CP Interview, Site B

Data shows that the CP role contributes to increased safety in general practice. This is highlighted throughout the findings. In the national survey data, pharmacists, practice site leads, GPs and other colleagues all cited safety as one of the major benefits of the CP role. (Appendix C).

All CPs interviewed for the research believed that improved medication safety is a significant impact of their work. Betty (CP Site B) believes there is an optimisation and or safety intervention in 70% of her cases. Alice (CP Site A) suggests that her impact on safety is appreciated by the practice team.

'I think the GP's and the practice manager here really appreciated that because this practice wants to be the best it can, but time and pressures mean things just have to get done quickly so to have eyes that are properly looking at things, they really appreciate that, the improvement in quality that we have achieved. We have done a lot of work around these amber drugs, they thought they were doing it brilliantly quite understandably, but then actually we found there were still some improvements that could be made, that have really appreciated all that sort of thing.'

CP Interview, Site A

Site B works closely with the CCG medicines management team on safety issues.

'I have actually just done a big piece of work for the CCG, we had 24 searches to run on high risk medicines. So we went through all of those, patients on ACEs with no renal functions, patients on ACE and an ARB , patients on fluoxetine and clopidogrel and interactions, anti-psychotics, meds that increased QT's, we have done quite a big piece of work recently. But that all forms part of working with the meds management team at the CCG so we work with them.'

CP Interview, Site B

Medication safety is summarised briefly here but explored more fully in the detailed analysis of qualitative data in appendix F.

The data briefly highlights some of the key areas of impact of the CP role on General Practice.

Impact on pharmacists

Data from the national survey of CPs show that those undertaking the role enjoy high levels of satisfaction. 89% agree or strongly agree that they enjoy working in their role, 89% agree or strongly agree that they work autonomously in their role, 87% agree or strongly agree that they work closely with others in the practice and 89% agree or strongly agree that they are accepted by other professionals in the practice. This is underpinned by qualitative data. Pharmacists in the new CP role report that they enjoy the opportunity to work clinically, and in a MDT, utilising their specialist skills in medicines.

The CP role allows for the utilisation of existing skills and networks. In qualitative data (Appendix F) CPs report that the job is challenging which makes it rewarding, and that it affords the opportunity to utilise existing skills whilst also developing new ones.

'Even though there is continuity in the types of work that I am doing, you are faced with different queries and you are learning all the time and that is what I am really enjoying actually, just learning new things.'

CP Interview, Site A

Our findings also demonstrate ways that CPs utilise their existing knowledge of, and networks in, other areas of pharmacy (such as community or hospital) to enhance the CP role and benefit the wider profession (Appendix F).

Impact on patients

The impact on patients is explored in great detail throughout the case studies (Appendix E) and qualitative data (Appendix F).

Patients report the benefits of increased access to a healthcare practitioner and the tailored appointment lengths offered by the CP. Data shows that CPs offered variable appointment lengths to patients according to their time in post and to patient needs. Patient interviews showed that they appreciated these longer appointments that offered the opportunity for an in-depth high quality review. Several patients reported that as a result of longer appointment times they felt they had a better understanding of their medicines and health. Several examples were given (by all stakeholders) of increased medicines optimisation during the medication review – improving adherence, deprescribing, and error reductions. Patients compared the service, very favourably with GP appointments as they air frustrations with inconsistency of GPs (seeing different ones, getting different advice) and of limited appointment lengths. Patients reflected on the positive experience of longer appointments tailored to need. Patients reported that personalised appointment lengths led to holistic care.

I think it is a good idea I mean I have only seen [Chloe] the once but she spent a lot of time with me, I was in there for 20 minutes. I was impressed with that. I have never had that level of service in this surgery.

Patient Interview, Site C

'She explained things and spent time with me. It was at least 20 minutes; she went through everything with me and made sure everything was alright with me. Very informative.'

Patient Interview, Site A

Patients report a clear understanding of the benefits of a specialist in medications in the Primary Care team. Patients report good advice about their medications from the CP which leads to better adherence and minimises side effects.

'It has been explained to me because we weren't actually told what they do, how they work, when to take them. The doctor doesn't tell you that.'

Patient Interview, Site C

There are several examples of impact on patient outcomes in case studies and patient stories. At site B patient BPN understood their medicines in a way they never have, Patient BL has improved his diabetes and overall health, and Patient BP had his asthma medication reviewed for the first time in his life which led to improvements in his condition. An additional benefit of the CP role is the increased healthy lifestyle advice and monitoring afforded to patients, often through the use of motivational interviewing skills.

'I am diabetic and I had to go to [Chloe] and I am on 500mg metformin a day. She put it on a sheet and I had to write everything down like what I ate in 2 weeks. So when I went back to her there were these big red circles (laughing) you shouldn't be eating that. I have took notice of it and tried to cut down a bit (laughing). She said you will be surprised how much sugar is in them. When she explained it to me, because I thought cereal bars they seem healthy, she said no. (laughing) I thought I was being good but obviously not, they have got more sugar in than if you just have the cereals.' Patient CJF

'They are always reminding me about smoking' Patient CAW

'I have cut down to 10-12 a day now!' Patient CL

Patient Interview, Site C

Several patients report increased quality of life and self-care as an outcome of their interaction with the CP.

Impact summary

Although our study was not set up to evaluate quantitative changes in patients' health outcomes, however, from the data we have obtained there is evidence of a wide range of working practices which could impact on patient outcomes including the following:

- Improved (right person right time) appropriate care through improved workflow in general practice and specialized MDT
- Increased
 - patient access to appointments
 - access to both planned and urgent care (higher proportion planned than urgent)
 - access to complimentary care such as vaccinations and medication reviews
 - patient satisfaction with their healthcare
 - holistic care of patients, leading to improved outcomes
 - patient understanding of their long term conditions and medications
 - patient education on healthy lifestyles
 - patient lifestyle changes benefitting overall health and contributing to improvements in long term health conditions
 - increased adherence to medications, especially with long term conditions (of particular note were hypertension, diabetes and mental health)
 - care home expertise and reduction in care home referrals including primary care and hospital admissions
 - management of link between prescribing and dispensing through good quality networks with community pharmacy
 - patient safety through error minimization and increased monitoring
 - medicines optimization
 - Reduced prescribing errors
 - Increased strategic prescribing
 - achievement of Quality and Outcomes Framework (QOF) targets
 - patient satisfaction with transitions between secondary and primary care
- Reduced
 - opioid use
 - prescribing errors
 - patient readmission post discharge
- Improved medication knowledge in wider clinical team leading to overall improvements in care related to medications

Recommendations

The impacts observed on multiple levels are recommended as further areas for investigation and measurement. Our qualitative findings can be quantified through further detailed evaluation studies. The following recommendations build on examples of good practice data collection observed at site level.

- **Measures of impact on General Practice**

- Capacity and workload

- Requires detailed data about the function of the CP role. Some of this can be easily collated at site level and returned for wider evaluation

'I run off a report on a monthly basis for all the pharmacists, it tells us how many medication requests they have actioned, whether they are acute or repeat ones, how many blood tests they have ordered, how many blood tests they have interpreted, how many patients they have seen face to face, how many phone reviews they have done, how many level 1 2 or 3 med reviews they have done, just to give me an idea. Because that is actually telling the practice, that is to actually show the practices who we want to get on board, look this is the work pharmacists do'

Site Lead Interview, Site A

- Requires comparative data about the functions and impact on other roles
 - Example data of pharmacist vs GP activity at Appendix A

'Who was doing the med review before 'Do you replace appointments that could have been offered by a doctor because it's more cost effective to have a Pharmacist there? If you think about all clinical med reviews went to a doctor in our practice. Not one of them would go to anyone else because the GP would be the person responsible. So having a Pharmacist there seeing 40 patients a day for clinical med reviews, extrapolate that over 5 days...'

Senior Clinical Pharmacist Interview, Site C

- Medicines optimisation

- Data about specific medicines optimisation initiatives, their desired outcomes, effectiveness and cost effectiveness

- Safety

- Further evaluation may consider the impact of the CP role as an intervention to improve safer practice.

'To some degree medicine safety incidences, if anybody could measure the number of medicine safety incidences or prescribing errors, in GP practices before the pilot, before and after the pharmacist, is there any change?'

GP Interview, Site B

- Some actions reported and observed make significant impact on the discharge process. CP interventions are likely to have prevented emergency hospital readmissions, but this may be difficult to evidence. Further evidence may require detailed patient data to be collected and interactions analysed for potential long term effectiveness and cost effectiveness.

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- Case study data highlights that CPs have significant impact on prescribing psychotics and care home safety. These could prove useful opportunity for further evaluations.
 - In addition to measurement of key performance metrics, qualitative data must be collected to underpin the understanding and interpretation of quantitative findings

'I think the true magic is some of the qualitative stuff that has actually been done. I wouldn't have known about this homeless project, we have got one pharmacist now sat doing acute triaging over at one of the university campuses, we have got another clinical pharmacist who has now taken on the vice chair of the PCPA [Primary Care Pharmacists Association], committee representation. We have got 3 representations on central England care home development policy, one is the NHS lead with the PCPA on the new care home committee group that they are looking at developing with regard to specifically care home work. I think all of that unspoken, or unrecognised work that has actually happened, that doesn't get captured with the way that we are currently using those NHS KPI's.'

Site Lead Interview, Site E

Measurements of impact on pharmacists

- Job satisfaction, autonomy and working relationships
 - Annual survey
- Increase in clinical skills and evidence of learning
 - Collected by national training commissioner

Measurements of impact on patients

- Patient surveys / focus groups
- Measurements of health outcomes in patients with particular long-term conditions

Communications and managing expectations

NHS England communications

Good communication by NHS England at both CCG level and directly to sites can facilitate clear understanding of the role. Communication was identified as a weakness in the SWOT analysis at a policy level. Top down communication had not always been effective and some pilot practices did not always understand what was expected of them. Consistent communication and support for local area teams, and practice site leads is a recommendation and further research should include these as significant stakeholders in the scheme.

'One thing I saw today which is a little bit of a conflict that is coming up, a lot of what people have presented in terms of what they are doing, the fact that the role is flexible and people have fitted the role to suit the practice, coming from people doing the role, and then I suppose the picture of the role policy level, is going this must be patient facing. But actually there is a whole range of things that pharmacists are doing and I just wonder might there be a bit of a mismatch between the bigger picture of what the role is versus what actually happens?'

Pharmacist, SWOT analysis focus group interview

Stakeholders' report that they benefit from sharing good practice – between sites, across sites, across areas, and nationally. There were some frustrations expressed that the reporting process represented a one way line of communication with no feedback offered from NHS England in response to the data provided. Ongoing communication should continue with a wide range of stakeholders including community pharmacy, pharmacy and medical professional leadership bodies, patient groups, academics, and training providers.

Managing expectations

The research identified a small number of mismatches in expectation which were a barrier to the scheme's implementation. Good communication with stakeholders is important to take these expectations into account and explore assumptions and to inform them of examples of practice.

Expectations largely relate to the scope of the CP role and the speed of scheme integration. The routine service data captured (Appendix B) suggests that at an early stage in the scheme a significant number of medicines reviews are still being conducted by GPs, which is counter to the expectation that pharmacists will conduct many of them. A variety of different expectations were reported and some GPs had expected the pharmacists to do administrative, medicines management duties and other prescribing task and that the band 7 pharmacists would be ready to go into patient facing consultations straight away. Unrealistic expectations on behalf of the practices had been demotivating for some of the pharmacists.

'GP practices expect pharmacists to be able to do more than they could, because they employed pharmacists at band 7 who had no experience, but they expected them to be able to prescribe and to be able to do all these things on day one, which they couldn't.'

Pharmacist, SWOT analysis focus group interview

The research identified some mismatch in GP expectations about what pharmacists will be ready, willing and able to do safely at the start of the role and are trained to do on their undergraduate course in terms of patient contact.

Some GPs showed a lack of full understanding of the costs of the scheme, or had unrealistic expectations about the time to realise the benefits of the scheme, and expected a quicker return on investment than is possible. There was often a mismatch in GPs expectation of the CP and the scheme and therefore made (sometimes unrealistic) assumptions about CP capability. GPs need guidance to be involved in CP recruitment.

'I found it difficult to interview Pharmacist when you only have experience of one you have.... I only have our pharmacist and they weren't interviewed they were commissioned. So I ended up interviewing a group of people that I have no idea about their level of expectation that I should have as an interviewer. I interview Nurses all the time, I interview for the CCG. I have never interviewed Pharmacists before'

GP Interview, Site B

Expectations and assumptions about pharmacists' knowledge of primary care can be detrimental to providing the support and training required. GPs that are not site leads and do not mentor CPs take longer to understand the role and its benefits. GPs have to invest significant time in mentoring but are unlikely to realise the benefits until after the first year of the scheme once the CP is established in the post. Formal guidance for GPs on induction and mentoring could support the implementation of future iterations of the scheme.

There is evidence of some mismatch in expectation of responsibilities sites between the local area team, the federation and the individual sites including the SCP role.

'The CCG had to use a federation as we were not allowed to bid, the federation were appalling at the induction and the CCG team had to step in to support the process to manage the initial expectations from practices.'

Survey data, Appendix C

Working closely at and across these levels facilitated clear guidelines on responsibilities related to the CP role.

All site leads interviewed expressed some level of frustration at a disconnect between the external training offered to CPs and the requirements of their day one and ongoing day to day practice as defined by the site. It might be useful for external training providers to conduct some communication work with site leads in order for them to better understand the training which the pharmacist will undertake and how it can contribute to their role development.

Several sites report variance in GP expectation, within and between practices. Many sites report that the first year is significant to build trust and awareness between GPs and Clinical Pharmacists about the boundaries and development of the role.

Internal communication

Practice site leads suggest that good quality local level communication can aid integration

'Good communication with the team and the expectations and limitations within the role. Our practice team really like our CP and want him to stay on permanently once the 3 years of the pilot has been completed'

Survey data, Appendix C

At Site A communication is centralised at a multiple practice level. GP Harry feels that integration of the CP and communication of their capabilities is vital to the success of the scheme

'I think if you are going to make this project successful, or to improve the success, I think it is understanding what their role could be and it is getting a communication strategy that means that everybody sees everybody else. She is one of these people who has actually become part of the team both [inside and] outside work so when they go out for a meal or drink, she is included and sometimes drives that'

GP Interview, Site H

Most sites have some kind of federation network for colleagues which is often supported by a virtual *WhatsApp* group for off-site communication. There is evidence of off-site communities of practice being developed in association with the nationally commissioned area based learning sets for CPs.

There was evidence of the benefits of the CP role being maximised where strong networks and internal communication exist. These are explored in detail in appendix F. They demonstrate that the role has wider benefits through links with hospital pharmacists, community pharmacists and wider pharmacists and allied health professionals.

'I think community pharmacists though are, I mean they may feel a little bit left behind but they must be appreciative of the fact that they no longer have to call the GP practice and speak to a random GP. They now have hopefully, a designated peer to speak to about one of their issues in the community pharmacy. So it is an extra link but I appreciate they might feel a little bit all the interesting work is going to be done by this colleague of mine in the GP practice but at least the communication, you know, pathways are open.'

Education and training commissioner regional representative, SWOT analysis Focus group interview

Recommendations

- Manage and enhance effective two way communication
 - Maintain clear lines of two way communication between NHS England to CCG level and site level
 - Maintain ongoing communication about the scheme with a wide range of stakeholders
 - Maintain ongoing data collection with sites and ensure regular reporting and feedback
 - Further research to include Local Areas Teams and practice site leads as a significant stakeholder set
 - Organise and develop opportunities to share good practice
- Manage expectations of all stakeholders through clear guidelines and communication
 - Manage GP expectations of the CP role capabilities and time for return on investment
 - Manage Practice Site Leads expectations of cost and training commitments
 - Manage local level expectations of wrap around responsibilities for the CP role (i.e. clear guidance on Senior CP mentoring, GP mentoring, Practice Site Lead and Local Areas team support)
- Manage internal communications
 - Support good quality local level communication to aid integration
 - Support local networks with external parties such as hospital and community pharmacy, CCG and wider allied health services
 - Share examples of good practice

Sustainability and future models

Sustainability

Sustainability is explored in detail in the full report in the Literature Review and Findings, Case Studies (Appendix E) and Qualitative Data (Appendix F) and summarised briefly here.

Sustainability of the CP role has been observed to be achieved by a large number of CPs who are now integrated, valued and held in high esteem by the practice sites and GPs they work with.

'We see we can't survive without pharmacists, they are part of what we do.'

GP Interview, Site A

'The message I would give is where the pharmacist does properly become part of the practice, then there are virtually no negatives in terms of the role. So once you get over that hurdle of really getting the pharmacists working in the practice as part of the team then it works. It is just getting over that first hurdle'

Site lead Interview, Site D

Practice site leads suggests that CPs need to begin to work autonomously from external support in order to be sustainable. Site leads suggest that in order for their role to be sustainable (at 36 months) CPs should be working fully autonomously patient facing by 24 months. It is suggested that this should be achieved by the third year of the scheme in order for the scheme to be perceived as sustainable at a site level and worthy of localised funding.

'I think what we are quite conscientious of at the moment is if it has been quite heavily supported. We have been making the decision as the federation as we are going into the 3rd year; they have really got to be self-sufficient. They have got to have some internal peer resilience, the federation can't continue to support them in that role, without that degree of sending, there has been a conscientious decision to say this week we will go into that to sort of say, take the foot off the gas a little bit'

Site lead Interview, Site E

The site lead and Senior CP roles have less sustainability built into the role and as such may not sustain beyond the scheme.

Research into economic viability and full return on investment (ROI) calculations would be useful for sites to inform decisions about role sustainability.

Models of operation

A range of successful models of operation were observed and are reported to inform future iterations of the scheme. Survey site data shows the huge variance in site sizes and operational models (appendix C). Detailed case study data including visual representations and detailed breakdown of different models of operation are offered at Appendix E.

Successful elements of observed models included the following:

- 'Buy in' of sites from early in the process
 - Site leads played a crucial role in gaining site level support. Survey data from site leads suggested that while the CP would be located at the practice it was often the federation who was responsible for recruitment and therefore efforts should be made to involve practices in the process for early buy in. Quantitative data showed that several GPs

were involved in interviewing for the CP post. Some sites were strategic in their approach to site level 'buy-in' facilitated by federation level support.

'When we were looking at putting the bid together, what we did was a little bit of work. We put the practice managers and their leads to become partners together as part of the GP federation to actually do a little bit facilitated planning together to look at anticipated retirement, maternity covers, really just a cross model exercise to get an early buy in for an opportunity for them to consider a clinical pharmacist.'

Site Lead Interview, Site E

- Clear communication between and across sites within a federation
 - Data showed some sites where communication had not always been good and practices did not always know what was expected of them. By contrast at sites with clear communication, in particular around the CP role boundaries, this helped to facilitate clear realistic expectations.

'Good communication with the team and the expectations and limitations within the role. Our practice team really like our CP and want him to stay on permanently once the 3 years of the pilot has been completed survey data'

Survey Data

- Strong local support for CPs and GPs from a practice site lead at federation level
 - The two previous examples are facilitated by the practice site lead and demonstrate some ways that the role helps to facilitate the integration of the CP supporting both CPs and GPs to understand and work with the new role. Data shows that the site lead also helps to facilitate administration of the role, often including human resources and finance issues. They also play a key role in organising and supporting training and mentoring for the CP post. The pilot site lead is often key in recognising the role of research to show the benefits of the role and collects and disseminates local level data. The site lead role and the way it is implemented is very wide ranging but vital to the success of the operationalization of the scheme, especially from the bid stage to the end of the first year of the scheme. Sites report that a centralised approach to HR and business management can benefit operationalisation, especially in the first year. Close links between the site lead and the local area team at CCG level can also facilitate the implementation of the scheme.
- Strong local support for CPs from a GP mentor and Senior CP utilising a reduced scaffolding method of mentoring
 - A period of induction for the CP is important for integration and generating a sense of belonging – these are shown to suffer where an induction period is not offered.

'I can't stress enough how important it is for the CP/Senior CP to be part of the practice team from the outset. Integration is key'

Survey data

- Mentoring models are not universal. Mentoring can be offered by GPs, Senior CPs or site leads, or advanced nurses, or any combinations of these. Best practice mentoring models include where a range of support is offered by multiple staff. A reduced scaffolding approach to mentoring, utilised for GP registrar training, is successful in building confidence. Scaling tasks according to ability and confidence is important. Several CPs reported in the survey 'open comments' that the best training they had in the role was their GP mentoring.

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- Survey and qualitative data shows that GPs have limited time available for mentoring, and are not offered a payment for mentoring CPs in the same way as they are with GP registrars. Data shows that mentoring is proactive and intensive in the first six months in post (or until CP prescriber status is achieved) then reduces to reactive and supportive for the following eighteen months. Several sites indicate reducing mentoring so that the CP post is self-sustaining by the end of second year in post,
 - A clear job description and boundaries for the CP role
 - Good communication to sites about the boundaries of the CP role help to facilitate clear and realistic expectations about the CP role. The job description for the CP can help to facilitate this, and it can be a fixed document or one open to development alongside the role.
 - One site suggested that they found the resolution to indemnity issues through a well-defined job description with clear boundaries.

'We are very consistent in what is expected of those employees within the pilot. There's a job description and that's all they're indemnified against. So if you choose to ask them to do something that's not in that job description they are not indemnified and we will not take the risk for that. And you'd be amazed, as soon as you say that - people stick to job descriptions.'

Site Lead Interview, Site B

- At one site the job description is a working document under development annually as the role develops during each year of the pilot and this is linked to the training undertaken as well as experience in the role.
- A clear management support structure and HR function for the CP role
 - The CP role requires a period of intensive support on implementation with a reducing level of support over time. A locally supportive structure is beneficial

'A lot of support has been necessary from all members of the primary care team, including GP time'

Survey data

- At several sites the human resource (HR) function for all CPs is centralised at the federation level. Site lead B suggests that this centralised HR approach ensures consistency in boundaries and responsibilities and has mitigated issues in indemnifying CPs.
- Pharmacists embedded within practices for more than three days per week
 - Survey data shows that the most popular models show that majority of CPs are working 4-5 days over 1-2 sites (although this is within a scale of huge variance). Site lead Fred gives an example of a CP working 1 day per week in a practice and the practice becoming frustrated that the scheme was not generating pace fast enough until the working hours were increased until 2 days per week There is evidence that the role should be a minimum of two days per week, and ideally three or more, at each site in order for the CP to be embedded in local practices and provide consistent patient service. Sites with pharmacists working less than full time take longer to realise benefits than those working full-time, meaning that it is likely to take longer to realise the benefits in smaller GP practices.

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- Clear tracking of CP role impact by CPs, Senior CPs and Practice Site Leads
 - Localised research of benefits facilitates the ongoing sustainability of the role and the scheme. Sharing good practice in localised research approaches facilitates learning across sites. Several sites gave examples of locally collected data, at site or federation level, and the way they had been able to utilise this data.

‘Just before the pilot bid had launched, we did an internal clinical sort of template that all the clinical pharmacists used to record any of the interventions and I think that was very key to us and an early opportunity’

Site Lead Interview, Site E

- Site C expects CPs to be employed directly at the end of the scheme but appreciates that research and cost will be vital to sustainability. At site C the SCP (working 0.2 FTE) is able to cite basic national key performance indicators statistics about his monthly activities.

‘This month I have seen nearly 900 patients and out of those 900 patients, 700 were clinical medication reviews, 150 were long term conditions, 50 were medication reviews, medicine queries, medicine reconciliation, and home visits maybe.’

Senior Clinical Pharmacist Interview, Site C

Recommendations

- Further evaluation work should evaluate the sustainability of the post beyond the initial 3 year funded period as a measure of scheme success
- Cost effectiveness analysis of CP Return on investment could usefully support role sustainability
- Future performance monitoring of sites should include data about the models employed in sites; Successful working models should be identified and shared as examples of good practice.

Long term development and training

A range of successful models of operation were observed and these can usefully inform the long term development of the scheme and the role. It is acknowledged that in some respects the pilot scheme was organised and managed with some key differences to later waves and as such, relevant changes are likely to already be in development.

Long term development

Data also suggests that competency and assessment of competency for the CP role should be developed at a national level to support establishment of the role, and to aid the development of interprofessional trust.

The survey highlights that many CPs were motivated to apply for the new role to contribute to development of the profession. The CP role contributes to a change in the pharmacy workforce. The significant numbers involved in the overall rollout of the Clinical Pharmacist in General Practice Pilot is supplemented by a large number of anecdotally reported similar patient facing roles which exist and are not part of the pilot scheme.

This significant shift in the numbers of pharmacists required to fulfil these roles requires further research and evaluation.

The long-term impact of the role should be investigated to determine the impact on undergraduate pharmacy training and placements. GPs in this study suggest that undergraduate education (including pharmacy pre-registration opportunities) need to change based on the developing role for pharmacists in primary care. Significant investment will be required to stabilise this new third career pathway (alongside hospital and community) for pharmacy training. Strong consideration should be given to supporting the development and funding of undergraduate curricula to take into account the changing professional role of the pharmacist. This includes greater in-course on-site clinical patient contact and the way independent prescribing is taught as an optional postgraduate programme. Furthermore mobility between sectors should be explored and encouraged facilitating the development of good quality transferable skills for the pharmacy profession.

Training

CP integration and availability in practice is important for continuity of care. In order to be successful and feel part of the team, pharmacists need to be visible, communicate well and be flexible and innovative. CPs need to spend more than one day per week in post to feel a sense of belonging, and the more WTE spent in role the faster the level of integration. CPs need training and time for learning 'on-the job' to understand the way that primary care works. Training and mentoring is vital to the development of the scheme but at a backfill cost to practices. The commissioned training supports the needs of the early innovator pharmacists but a long-term model of development should be considered in relation to the needs of clinical pharmacists in general practice.

Recommendations

- National competencies for the CP role should be developed to aid role development and progression and to facilitate interprofessional trust
 - Competencies should be based on current and future national needs analysis through ongoing conversation and liaison with key stakeholders
 - The steering group to develop national competencies for the clinical pharmacist role should include those working in primary care (Pharmacists, GPs, site leads

and other allied health staff) as well as representative bodies (RPS) and those responsible for regulating (GPhC) and funding national pharmacy education (Office for Students informed by NHS England).

- Long term workforce development and training plans should take consideration of the CP role as the third major career choice for pharmacists alongside hospital and community practice including due consideration of remuneration
- Impact of the CP role on the changing pharmacist workforce and hence undergraduate education is an important long-term consideration and area for further research

Summary of recommendations

As a result of the work carried out in this evaluation the project make the following recommendations:

- NHS England should direct and enhance effective two way communication
 - Maintain clear lines of two way communication between NHS England to Clinical Commissioning Group level and site level
 - Maintain ongoing communication about the scheme with a wide range of stakeholders
 - Maintain ongoing data collection with sites and ensure regular reporting and feedback
 - Further research to include Local Areas Teams and practice site leads as a significant stakeholder set
 - Organise and develop opportunities to share good practice
- NHS England should further manage expectations of all stakeholders through clear guidelines and communication
 - Manage GP expectations of the clinical pharmacist role capabilities and time for return on investment
 - Manage practice site leads expectations of cost and training commitments
 - Manage local level expectations of wrap around responsibilities for the clinical pharmacist role (i.e. clear guidance on senior clinical pharmacist mentoring, GP mentoring, Practice site lead and Local Areas team support)
- NHS England should facilitate internal communications
 - Support good quality local level communication to aid integration
 - Support local networks with external parties such as hospital and community pharmacy, CCG and wider allied health services
 - Share examples of good practice
- National competencies for the clinical pharmacist role should be developed to aid development and progression and to facilitate interprofessional trust
 - Competencies should be based on current and future national needs analysis through ongoing conversation and liaison with key stakeholders.
 - The steering group to develop national competencies for the clinical pharmacist role should include those working in primary care (Pharmacists, GPs, site leads and other allied health staff) as well as representative bodies (RPS and RCGP) and those responsible for regulating (GPhC) and funding national pharmacy education (Office for Students informed by NHS England)
- Long term workforce development and training plans should take consideration of the clinical pharmacist role as the third major career choice for pharmacists alongside hospital and community practice including due consideration of remuneration

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- Impact of the CP role on the changing pharmacist workforce and hence undergraduate education is an important long-term consideration and area for further research

We also recommend that future evaluation work takes account of the following:

Measurement of the impact on General Practice

- Capacity and workload
 - Requires detailed data about the function of the CP role. Some of this can be easily collated at site level and returned for wider evaluation
 - Requires comparative data about the functions and impact on other roles
- Medicines optimisation
 - Data about specific medicines optimisation initiatives, their desired outcomes, effectiveness and cost effectiveness
- Safety
 - Further evaluation may consider the impact of the CP role as an intervention to improve safer practice
 - Some actions reported and observed make significant impact on the discharge process. CP interventions are likely to have prevented emergency hospital readmissions, but this may be difficult to evidence. Further evidence may require detailed patient data to be collected and interactions analysed for potential long term effectiveness and cost effectiveness.
 - Case study data highlights that CPs have significant impact on prescribing psychotics and care home safety. These could prove useful opportunity for further evaluations.
 - In addition to measurement of key performance metrics, qualitative data must be collected to underpin the understanding and interpretation of quantitative findings

Measurements of Impact on Pharmacists

- Job satisfaction, autonomy and working relationships
 - Annual survey
- Increase in clinical skills and evidence of learning
 - Collected by national training commissioner

Measurements of Impact on Patients

- Patient surveys / focus groups
- Measurements of health outcomes in patients with particular long-term conditions

Conclusion

This executive summary summarizes the impact of the role of the CP at multiple levels, and considers the sustainability and long-term development of the scheme. A detailed description of the work can be found in the full report.

Taking a mixed methods approach allowed measurement of 'what' was happening in the scheme underpinned by understanding 'how' the scheme was experienced by key stakeholders.

CPs 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 led to increased capacity in practices. Although the role requires financial commitment from practices, GPs believe the role to be sustainable, most will keep the one they are working with after the funding expires.

Costs and effects of the role were outlined. There remains some mismatch between GPs' expectations of ROI and both the depth of cost and length of time for returns to be realised.

CPs integration and availability in practice is important for continuity of care. In order to be successful and feel part of the team, pharmacists need to be visible, communicate well and be flexible and innovative. CPs need to spend more than one day per week in post to feel a sense of belonging, and the more time spent in role the faster the level of integration. CPs need training and time for learning 'on-the-job' to understand the way that primary care works. Training and mentoring is vital to the development of the scheme but at a cost to practices. Costs are highest in the first year of the scheme and time is needed to realise the benefits of the role. Senior clinical pharmacist roles vary and need to be further defined and evaluated for sustainability.

Site leads are clearly focused on the sustainability of the scheme, many have actions in place to sustain the role beyond 36 months at the 24 months stage and in order for their role to be sustainable (at 36 months) CPs should be working autonomously patient facing by 24 months.

The clinical pharmacist in general practice role is already causing variance and potentially gaps in the wider pharmacy workforce. Workforce planners need to take this into consideration.

Key performance indicators for the scheme should be evidence-based and localised. There has been limited value to the monthly return data collected so far, and no feedback, creating resistance from sites. Future national reporting should be limited to key information only and localized reporting should be encouraged and facilitated. Evaluation should actively inform future iterations of scheme developments.

If integration of pharmacists into general practice is to be successful there is a need to be flexible to develop their roles based on individual general practice needs whilst performing within a recognized competency framework. For continuing success there will be challenges to overcome, such as defining standards for these new roles, and acceptance of patient-facing pharmacists by existing GP team members and by patients. It is likely that the professional identity of pharmacists may change and general practice teams will need to find a new equilibrium. If these transitions can be facilitated, then CPs can increasingly provide a bridge between the patient and their medicines.

References

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