

Jennifer Newbould, Josephine Exley, Sarah Ball, Jennie Corbett, Emma Pitchforth and Martin Roland

GPs' and practice staff's views of a telephone first approach to demand management:

a qualitative study in primary care

Abstract

Background

To better manage patient demand, some general practices have implemented a 'telephone first' approach in which all patients seeking a face-to-face appointment first have to speak to a GP on the telephone. Previous studies have suggested that there is considerable scope for this new approach, but there remain significant concerns.

Aim

To understand the views of GPs and practice staff of the telephone first approach, and to identify enablers and barriers to successful adoption of the approach.

Design and setting

A qualitative study of the telephone first approach in 12 general practices that have adopted it, and two general practices that have tried the approach but reverted to their previous system.

Method

A total of 53 qualitative interviews with GPs and practice staff were conducted. Transcriptions of the interviews were systematically analysed.

Results

Staff in the majority of practices reported that the approach was an improvement on their previous system, but all practices experienced challenges; for example, where practices did not have the capacity to meet the increase in demand for telephone consultations. Staff were also aware that the new system suited some patients better than others. Adoption of the telephone first approach could be very stressful, with a negative impact on morale, especially reported in interviews with the two practices that had tried but stopped the approach. Interviewees identified enablers and barriers to the successful adoption of a telephone first approach in primary care. Enablers to successful adoption were: understanding demand, practice staff as pivotal, making modifications to the approach, and educating patients.

Conclusion

Practices considering adopting or clinical commissioning groups considering funding a telephone first approach should consider carefully a practice's capacity and capability before launching.

Keywords

consultation; general practice; GPs, primary care.

INTRODUCTION

GPs in the UK face growing challenges to meet demand for care. This is due to rising demand, more older patients with increasingly complex problems, and difficulties in recruiting to the workforce.^{1,2} Some practices, looking for a way to better manage patient demand, have implemented a telephone first approach, in which all patients seeking a face-to-face appointment first have to speak to a GP on the telephone. This differs from the traditional booking system where patients speak to a receptionist on the telephone, who provides them with a date and time for a face-to-face appointment with a GP. In the UK, appointments are normally booked by receptionists who do not have any medical training apart from that required to identify immediate medical emergencies.

Under a telephone first system the call is dealt with in one of three ways: the problem is resolved over the telephone; the patient is seen by another healthcare professional; or the patient is provided with an appointment for a face-to-face consultation with a GP, usually on the same day (Figure 1 shows more detail on this approach). In the UK at the time of writing, two commercial companies (GP Access [<https://gpaccess.uk/>] and DrFirst) provided support to practices adopting the telephone first approach, and cited better access, improved patient and

staff satisfaction, and reduced work stress as being among its advantages. Some of these claims have been corroborated in NHS England literature.³

An independent evaluation of the telephone first approach, previously conducted by the authors, found wide variation in its impact on staff workload, from greatly reduced to significantly increased, but no net reduction in 59 practices using the approach.⁴ Patients in that study expressed a wide range of views, both positive and negative. Although telephone consultations have been used in general practice for many years, the telephone first approach is a more radical method that aims to substitute many face-to-face consultations with telephone consultations. This study explores the views and experiences of GPs, practice managers, and reception and administrative staff of the telephone first approach. Also presented are factors that staff identified as enablers and barriers to the successful adoption of a telephone first approach in primary care.

METHOD

Sampling

Twelve general practices across England using a telephone first approach were recruited for the study; these are described in detail elsewhere (hereafter referred to as 'active practices').⁴ Two commercial

J Newbould, PhD, research leader; **J Exley**, MSc, senior analyst; **S Ball**, PhD, senior analyst; **J Corbett**, MSc, analyst, Cambridge Centre for Health Services Research, RAND Europe, Cambridge. **E Pitchforth**, PhD, senior lecturer and senior research fellow in primary care, Primary Care Group, University of Exeter Medical School, Exeter. **M Roland**, DM, emeritus professor of health services research, Cambridge Centre for Health Services Research, Institute of Public Health, University of Cambridge, Cambridge.
Address for correspondence
Jennifer Newbould, Cambridge Centre for Health

Services Research, RAND Europe, Westbrook Centre, Cambridge CB4 1YG, UK.

Email: newbould@rand.org

Submitted: 27 August 2018; **Editor's response:**

1 October 2018; **final acceptance:**

2 November 2018.

©British Journal of General Practice

This is the full-length article (published online 24 Apr 2019) of an abridged version published in print. Cite this version as: **Br J Gen Pract 2019;** DOI: <https://doi.org/10.3399/bjgp19X702401>

How this fits in

At a time when primary care is under pressure, some GPs have adopted a telephone first approach in which all patients seeking a face-to-face appointment first have to speak to a GP on the telephone. Although the approach was working well in some practices, for others there were significant challenges. Practices considering adopting or clinical commissioning groups considering funding a telephone first approach should consider carefully a practice's capacity and capability before launching. Practices should understand practice demand, have adequate and well-trained staff, and be able to make appropriate modifications to the system to meet patient needs.

were approached in batches with the aim of including practices with a range of characteristics. In addition, two practices were recruited that had tried the approach but reverted to their previous appointment system (hereafter referred to as 'reverter practices'). Practices varied across many dimensions including population served, list size, number of GPs, and geographical location (Table 1).

Data collection

Semi-structured interviews were conducted with up to five members of staff from each practice. Purposive sampling was used to include a range of healthcare professionals; usually two GPs, a practice manager, and a reception or administrative staff member were interviewed. The practices selected staff to participate based on who they decided was most suitable to discuss the telephone first approach.

Face-to-face interviews were usually conducted at the practice and three interviews were conducted by telephone. Participants gave written consent to be interviewed. A common interview guide informed by the literature was used for each interview. The interview explored the reasons for switching approach, the setting-up process, perceptions of quality of care, and safety as well as impacts on the doctor-patient and intrapractice staff relationships. The advantages and disadvantages of the telephone first approach were also discussed. With participants' permission interviews were audiorecorded, transcribed, and anonymised. For one practice audiorecordings were unavailable due to technical problems and interviewers instead took detailed notes.

Data analysis

Data analysis proceeded in parallel with data collection and informed the iterative development of the interview topic guide (further details are on request). Thematic analysis of the data was conducted based on principles outlined by Boyatzis.⁵ Transcripts were read, re-read, and coded. As analysis progressed codes were organised into overarching or organising themes using NVivo 10 software. Data within themes were examined for confirming and disconfirming views of participants. Emerging findings were shared and discussed regularly within the study team.

RESULTS

The study team undertook 53 staff interviews in 14 practices. Practices varied in the commercial provider used, the size of the practice (from around 2000 to over 16 000

companies provided lists of practices known to have been running the telephone first approach for at least 6 months. Practices

Figure 1. Flow diagram of a typical telephone first approach.

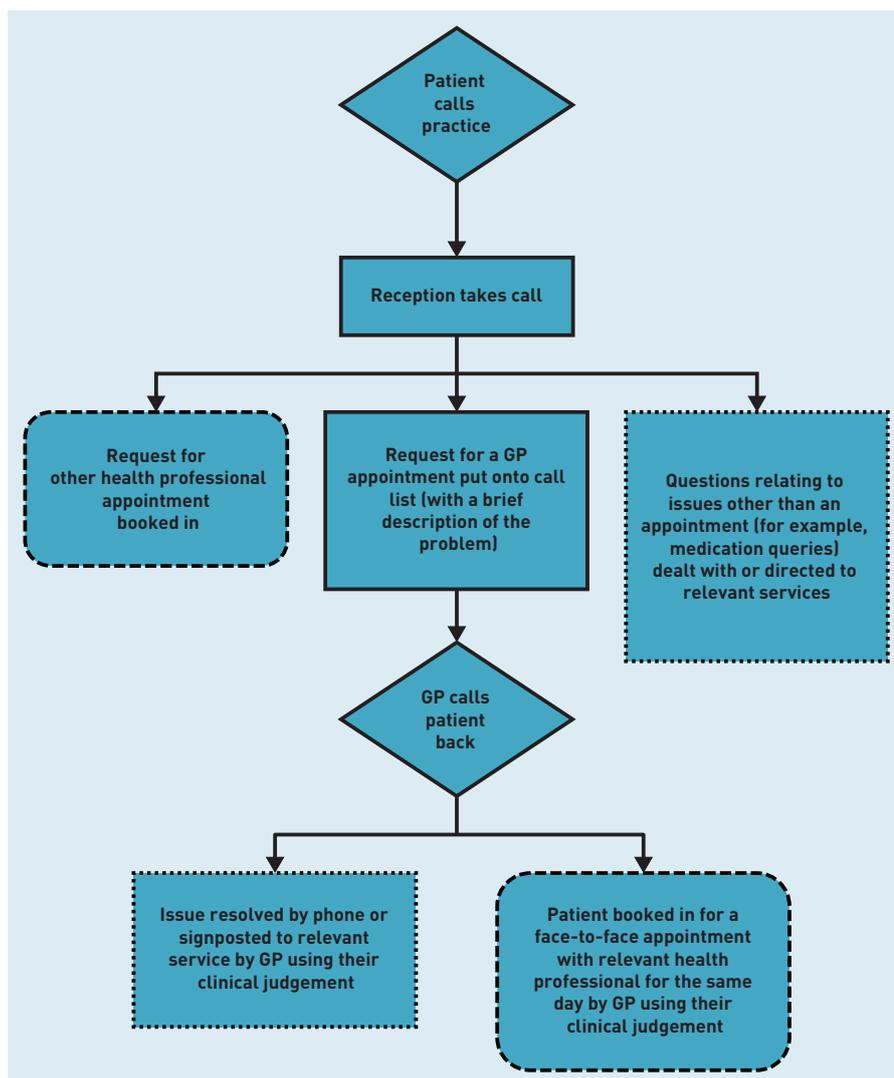


Table 1. Summary of practice characteristics and number of staff interviewed

Practice ID	Provider	Practice size	Payer of the telephone first approach	Length of time using telephone first approach, years	Rurality	Deprivation, more or less deprived	Ethnicity, (above or below average % of population that are white)	Number of staff interviewed per practice					
								GP	Practice manager	Nurse	Reception/ Admin	Total	
100	GPA	8093	self-pay	1	urban	less	above	2	1	1	1	1	5
101	GPA	6672	self-pay	3	urban	less	above	2	1	0	2	2	5 ^a
102	DF	2347	CCG	2	urban	less	above	1	1	1	1	1	4
103	DF	7312	CCG	2	urban	more	above	2	0	0	2	2	4
104	GPA	4913	self-pay	4	urban	less	below	1	1	0	2	2	4
105	DF	11 484	self-pay	2	urban	less	above	2	1	0	1	1	4
106	DF	16 072	self-pay	2	urban	less	above	2	1	0	1	1	4
108	DF	4913	CCG	2	urban	more	above	2	1	0	1	1	4
110	GPA	8639	CCG	1	urban	more	above	2	1	0	1	1	4
112	DF	7934	CCG	1	urban	more	below	1	1	0	1	1	3
114	GPA	8364	self-pay	2	urban	less	above	2	1	0	1	1	4
117	DF	7888	self-pay	2	urban	less	above	2	1	0	1	1	4
201	DF	8397	CCG	n/a	urban	more	above	1	0	0	0	0	1
202	DF	4494	self-pay	n/a	urban	more	above	2	0	0	2	2	3 ^a

^a Two interviews in these practices were joint interviews between two members of staff. CCG = clinical commissioning group. DF = DiFirst. GPA = GP Access. n/a = not applicable. Self-pay = practice pays.

patients) and the length of time the practice had been using the telephone first approach (1–4 years) (Table 1). The results are presented in themes from the data. Points of discussion included: why practices decided to switch to a telephone first approach, staff experiences of the system, and their perceptions of the impact on patients. The final section of this article explores the enablers and barriers to the successful adoption of a telephone first approach.

Why adopt a telephone first approach?

Many interviewees identified problems in meeting demand as a key reason for the change to a telephone first approach, including patients having to wait a long time to see a GP under the previous appointment system:

'So, you know, it was getting up to, sort of, 3 or 4 weeks, you know, before people would get a routine appointment ... we were finding that was getting incredibly onerous and stressful for the duty doctor because he might get, oh I don't know, 70, 80, sometimes even 100 calls in a day.' (Practice Manager 5001, Practice 105, Active practice)

A few interviewees described circumstances that brought the situation to a head; for example, a staff member leaving or patient harm attributed to a long wait to see a GP. For others, funding from clinical commissioning groups (CCGs: national NHS bodies that plan local healthcare services) enabled the practice to adopt the approach; other practices had paid commercial companies from their own funds.

Staff experiences of the telephone first approach

Interviewees' experiences of the telephone first approach were polarised, with strong opinions both for and against the approach. For all staff, the telephone first approach led to a different way of working. All GPs reported that they were speaking to more patients than under a traditional appointment system but seeing fewer patients face-to-face. A number liked the flexibility of the telephone first approach and felt that it afforded them more control over their day. Conversely, a few GPs found the system harder in terms of balancing the call-backs with other tasks, such as supervising students and home visits. A handful of GPs commented that they felt more isolated under the telephone first approach, as they spent more time on their own in their consulting rooms making telephone calls rather than seeing patients face-to-face. A few practices had introduced

measures to try to mitigate against this; for example, joint coffee and lunch breaks for GPs to encourage a sense of camaraderie.

Many reception staff said that they could enjoy their roles more, as they were more frequently able to offer patients appointments than under the previous system. Practice managers frequently spoke of improved running of the practice; for example, fewer patients missing appointments (DNAs) and more patients being seen or spoken to. Morale in some practices was reported to have improved:

'... the admin staff like it in the fact that they don't have patients shouting at them now, like, "What do you mean you haven't got any appointments? It's only, you know, 8.45 am and how can you have run out of appointments already?"' (Practice Manager 5001, Practice 102, Active practice)

All practices reported some challenges in adopting the approach and many highlighted that it had taken some time for practices and staff to adapt, in some cases up to 2 years.

Despite these challenges, the vast majority of interviewees preferred the telephone first approach to a traditional booking system. At one practice an interviewee believed the approach resulted in less stress, reduced workload, and shorter working days:

'We definitely go home earlier, definitely ... 3 years ago, I used to work a Monday evening and, in theory, we should finish at 6.30, I was still here at 8 o'clock most Monday evenings. Now, our Monday evening team, by a quarter to seven, they are gone, and all the patients have been managed and seen.' (Administrator/Reception 5001, Practice 114, Active practice)

In contrast, interviewees from a few practices reported being overwhelmed by demand and working longer hours than under the previous system as the demand for appointments exceeded the supply. In the two reverter practices interviewees reported a very traumatic time for the operating of the practice:

'I didn't want to say anything because I felt like everybody else was probably fine and it was just me and then I had one of those unintended conversations with one of the other partners ... so I said to her (that I wasn't coping with telephone first) and I just saw this kind of massive sense of relief and she said, "Do you know I hate it and I think I'm going to have to leave if it carries on."' (GP 5001,

Practice 201, Reverter practice)

Patient safety

Much of the grey literature surrounding the telephone first approach has focused on concerns about safety. The majority of GPs in the practices using it believed that a telephone first approach was safer than a traditional booking system, as all patients wanting an appointment with a GP would at least speak to a GP on the same day:

'... the doctors who are saying, "Well, we don't think it's safe," well, they've got 4-week waits to be seen. And ... you don't know what's wrong with them, so how's it safe to have them waiting 4 weeks?' (GP 5002, Practice 104, Active practice)

Several GPs spoke about the importance of 'safety netting'; for example, saying that they had a low threshold for bringing patients in for a face-to-face consultation if anything concerned them. A few GPs spoke of individual attitude to risk as being particularly important when using a telephone first approach. Factors identified as influencing the level of comfort with risk included how long the doctor had been a GP, how well they knew the patient, and how much telephone consulting they had done previously.

Staff perceptions of implications for patients

Interviewees were asked about the effect of the telephone first approach on groups of patients that might be adversely impacted by the approach, including patients for whom English was not their first language, older patients, deaf or hearing-impaired patients, and patients without telephones. Two practices in deprived areas identified population groups who were challenged by the telephone first approach:

'The population which it really doesn't work with is our immigrant population; our asylum seekers and refugees. Sometimes there's language problems and problem with expectations — we have a low threshold for calling them in. The only [way] it helps is that we can arrange an interpreter for them rather than them booking an appointment and turning up without an interpreter.' (GP 5001, Practice 108, Active practice)

Interviewees also spoke of arrangements that they had made for individuals such as those with hearing impairment who found it challenging to navigate the telephone first approach:

'... some of them we have a flag on [the clinical system] saying if this person rings up for a consultation just book them in because sometimes, particularly when we have say hard of hearing, deaf patients, vulnerable, learning difficulties, we just book those in [for a face-to-face appointment].' (GP 5004, Practice 101, Active practice)

The majority of staff interviewed believed that older patients liked the system once they had experienced it. However, a few GPs noted that older patients missed the contact that a face-to-face consultation afforded, and that there were difficulties for patients who relied on family and friends or public transport. These patients were less able to visit the practice at short notice if a face-to-face consultation was thought necessary.

Enablers and barriers to the successful adoption of a telephone first approach

Box 1 draws together under four themes each of the enablers and barriers to the successful adoption of a telephone first approach in primary care as outlined by practice staff in interviews. Interviewees often articulated these barriers and enablers as factors that had either assisted in or presented challenges to successful adoption.

The barriers outlined in Box 1 were factors that practices were often unable to overcome. Conversely, the enablers outlined by interviewees present elements that practices could try to incorporate into their implementation of a telephone first approach. The four areas identified as

enablers to the successful adoption of a telephone first approach — understanding demand, practice staff as pivotal, making modifications to the approach, and educating patients — are explored below.

Understanding demand. In a number of practices, interviewees described understanding patterns of demand at the practice as an important element in the success of the telephone first approach. This was achieved by interrogating a practice's computer system and enabled a practice to see how it was meeting patient demand on a daily, weekly, or monthly basis. In a few cases the practice had already been monitoring demand prior to the adoption of a telephone first approach, but in most cases the input of commercial companies had assisted staff in understanding the nature of demand. In several practices interviewees described how they continued to monitor demand and made changes to the appointment system, which in one case was necessary on a daily basis:

'... on a busy day we might think actually we're running out of calls, we'll start booking into another day and we'll change some of our booking slots into phone call slots to increase our phone demand, so we can be flexible there ... I mean it's a continual sort of tweaking process through the day really. I mean our duty doctor will tend to be just keeping an eye, our practice administrator sort of has a look ... you're kind of maximising your efficiency really. And some days you'll have more calls and less people want to be seen, other days it's the other way around, but it's a very flexible system.' (Practice Manager 5001, Practice 101, Active practice)

Practice staff as pivotal. The overall success of the telephone first approach depended on staff influence: whether there was a member of staff leading the approach and guiding and supporting colleagues, GPs working together to implement the system consistently, and reception staff who were well-trained and supported. One feature of the telephone first approach advocated by the two commercial providers is for reception staff to take a brief note of the patient's problem to allow the GP to respond to more serious complaints first. In some practices reception staff took a more active role by triaging patients with particular complaints to other sources of information; for example, a pharmacist. This reduced the number of calls a GP had to take. In practices without such an

Box 1 Enablers and barriers to the successful adoption of a telephone first approach in primary care

Enablers	Barriers
<p>Understanding demand:</p> <ul style="list-style-type: none"> Understanding patterns of demand Matching capacity to demand <p>Staff as pivotal:</p> <ul style="list-style-type: none"> Reception staff well trained and supported Identified member of staff leading the approach GPs all using the approach consistently <p>Making modifications to the approach:</p> <ul style="list-style-type: none"> Making modifications to the approach to overcome challenges Confidence in using the approach flexibly <p>Educating patients:</p> <ul style="list-style-type: none"> Clear and updated guidance for patients about the telephone first approach 	<p>Insufficient capacity:</p> <ul style="list-style-type: none"> Insufficient capacity to meet demand; for example, not enough GPs or reception staff to take calls <p>Staff challenges:</p> <ul style="list-style-type: none"> Reliance on locums and registrars not familiar with the approach <p>Patient characteristics:</p> <ul style="list-style-type: none"> Characteristics of the patient population that may make negotiating the system a challenge, for example, poor English, or unable to take calls at work <p>Practical problems:</p> <ul style="list-style-type: none"> Poor mobile coverage in the surrounding area

approach a few GPs found patients having direct access to them could be a challenge:

'My main worry about this is that demand has increased and continues to increase because we are so accessible and there is no barrier there.' (GP 5004, Practice 117, Active practice)

Problems with staffing could be a challenge to the approach. In particular there was reliance on locums who were not familiar with the telephone first approach and therefore could only see patients face-to-face, which impacted on the system for other GPs who had to do more telephone calls. A few practices had struggled with GPs leaving and this meant there were not enough GPs to meet patient demand. In the two reverter practices lack of staff was a large problem: one practice had lost two partners and four salaried GPs in a year, and, in the other, two partners had left at a similar time.

Making modifications to the approach.

Interviewees reported various opinions on making modifications to the telephone first approach, as it had been originally outlined by the commercial companies. A few saw the commercial companies' guidance as something that should not be experimented with. For others, however, the system was something that was often modified and changed. Staff in such practices were confident in offering flexibility around the approach when it was deemed necessary. Where this occurred it often facilitated the successful adoption of the approach, with practices adopting modifications that overcame challenges in their practice or with their particular practice population:

'... so if you ring in today and the system is overwhelmed you might be told, in some practices I know: "Sorry we can't deal with this today please ring back tomorrow", but we won't say that to our patients we will say: "Really sorry we can't deal with this today but I will put you on the list for tomorrow and you'll get a call tomorrow" ... so we do do that which can help.' (GP 5002, Practice 102, Active practice)

Other examples of modifications included asking patients if they had a preferred time to be called back, some patients being able to directly book face-to-face appointments at the reception, or GPs being able to book follow-up appointments in advance.

Educating patients. Prior to launching the

telephone first approach, practices had communicated the change to patients in a variety of ways, often using material provided by the commercial companies. There was variation in the extent to which this was done: some practices had written to every patient registered with them whereas others had put notices up in the practice. Several interviewees stressed the importance of educating patients about the telephone first approach to enable them to smoothly navigate the new system.

DISCUSSION

Summary

Staff in the majority of practices believed that the approach was an improvement on their previous system. Receptionists particularly valued their improved ability to offer patients an appointment (albeit a telephone appointment). However, all practices had experienced challenges, especially where the new system led to a major increase in demand for telephone consultations without capacity to meet that demand. Staff were also aware that the new system suited some patients much better than others. Adoption of the telephone first approach could be very stressful with a negative impact on morale; this was observed especially in interviews with staff from the two reverter practices. Interviewees identified enablers and barriers to the successful adoption of a telephone first approach in primary care. Enablers to successful adoption were: understanding demand, practice staff as pivotal, making modifications to the approach, and educating patients.

Strengths and limitations

This in-depth qualitative study was undertaken as part of the first independent evaluation of a telephone first approach to demand management in primary care. The sample included a range of practices in terms of location, deprivation, size, ethnicity, and how the telephone first approach was funded. A large number of interviews ($n=53$) were conducted. A limitation of the study was that practices and practice staff voluntarily took part in the study. Nevertheless the sample did include staff who believed the telephone first approach had worked as well as those who had experienced challenges.

Comparison with existing literature

Previous studies have shown that there is considerable potential to use telephone consultations in general practice, and they have become commonplace over the

past 20 years.^{6,7} However, using telephone consultations to reduce workload is not always successful. For example, a recent randomised trial of telephone triage for patients requesting same-day consultations (the ESTEEM trial) found that telephone triage produced a significant increase in workload over the subsequent 28 days.⁸ The approach evaluated in this article was not only more radical in that all requests for appointments were offered a telephone consultation but also, as the authors' reported elsewhere,⁴ the new approach was associated, on average, with an increase in workload. However, as with the ESTEEM trial, the way in which the new approach was introduced had a profound effect on how well it worked and the impact on staff.⁹ Previously reported^{10,11} concerns about the safety of telephone consultations were in general not borne out in this current study, with most GPs believing that being able to speak to patients without long delays improved safety.

Implications for practice

As GPs continue to struggle with increased demand in primary care, increasing numbers of practices are looking to the telephone first approach as a way to manage demand in general practice. This research shows the adoption of a telephone

first approach has major implications for practices and practice staff, with some GPs particularly feeling the strain of the different way of working. Although the approach was working well in some practices, for others there were real challenges.

Practices considering adopting or CCGs considering funding a telephone first approach should consider carefully a practice's capacity and capability before launching. Practices should have a thorough understanding of the nature of demand and the problems they are trying to overcome, and staff should be trained and encouraged as enablers of change. Related to both of these, appropriate modifications to the system should be made locally to meet patient need. The successful implementation of a telephone first approach was also dependent on having sufficient workforce, capacity, infrastructure, and resources to implement changes. The authors are aware that some CCGs have funded practices to adopt a telephone first approach in the hope it will change the fortune of struggling practices. The current findings suggest that implementing telephone first in a practice that is already experiencing challenges is unlikely to help the practice and may cause additional problems.

Funding

The study was funded by the National Institute for Health Research (NIHR) (HS&DR Project 13/59/40). This article presents independent research funded by the NIHR. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR, or the Department of Health.

Ethical approval

The study was approved by the West of Scotland NHS Research Ethics Service (7 May 2015, REC reference 16/WS/0088).

Provenance

Freely submitted; externally peer reviewed.

Competing interests

All authors declare that they have no competing interests.

Acknowledgements

The authors thank the GPs and staff of the practices interviewed for this study. They also thank the GPs and patients on the study steering group who gave guidance on the design and conduct of the study.

Open access

This article is Open Access: CC BY-NC 4.0 licence (<http://creativecommons.org/licenses/by-nc/4.0/>).

Discuss this article

Contribute and read comments about this article: bjgp.org/letters

REFERENCES

1. Primary Care Workforce Commission. *The future of primary care: creating teams for tomorrow*. 2015. <https://www.hee.nhs.uk/sites/default/files/documents/The%20Future%20of%20Primary%20Care%20report.pdf> (accessed 22 Mar 2019).
2. Hobbs FDR, Bankhead C, Mukhtar T, *et al*. Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England, 2007–14. *Lancet* 2016; DOI: [https://doi.org/10.1016/s0140-6736\(16\)00620-6](https://doi.org/10.1016/s0140-6736(16)00620-6).
3. NHS England *High quality care for all, now and for future generations: transforming urgent and emergency care services in England*. 2013. <https://www.england.nhs.uk/wp-content/uploads/2013/06/urg-emerg-care-ev-bse.pdf> (accessed 22 Mar 2019).
4. Newbould J, Abel G, Ball S, *et al*. Evaluation of telephone first approach to demand management in English general practice: observational study. *BMJ* 2017; DOI: <https://doi.org/10.1136/bmj.j4197>.
5. Boyatzis R. *Transforming qualitative information: thematic analysis and code development*. Thousand Oaks, CA: SAGE Publications, 1998.
6. Brant H, Atherton H, Ziebland S, *et al*. Using alternatives to face-to-face consultations: a survey of prevalence and attitudes in general practice. *Br J Gen Pract* 2016; DOI: <https://doi.org/10.3399/bjgp16X685597>.
7. Van Galen L, Car J. Telephone consultations. *BMJ* 2018; **360**: k1047. DOI: <https://doi.org/10.1136/bmj.k1047>.
8. Campbell JL, Fletcher E, Britten N, *et al*. Telephone triage for management of same-day consultation requests in general practice (the ESTEEM trial): a cluster-randomised controlled trial and cost-consequence analysis. *Lancet* 2014; DOI: [https://doi.org/10.1016/s0140-6736\(14\)61058-8](https://doi.org/10.1016/s0140-6736(14)61058-8).
9. Murdoch J, Varley A, Fletcher E, *et al*. Implementing telephone triage in general practice: a process evaluation of a cluster randomised controlled trial. *BMC Fam Pract* 2015; **16**: 47. DOI: <https://doi.org/10.1186/s12875-015-0263-4>.
10. McKinstry B, Hammersley V, Burton C, *et al*. The quality, safety and content of telephone and face-to-face consultations: a comparative study. *Qual Saf Health Care* 2010; **19**(4): 298–303.
11. Medical Protection Practice Matters. *Risks of telephone consultations*. Medical Protection, 2015. <https://www.medicalprotection.org/uk/practice-matters-june-2015/risks-of-telephone-consultations> (accessed 22 Mar 2019).