

No. 23

# Improving quality in general practice

**Evidence scan**

November 2014

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Health Foundation evidence scans provide information to help those involved in improving the quality of healthcare understand what research is available on particular topics.

Evidence scans provide a rapid collation of empirical research about a topic relevant to the Health Foundation's work. Although all of the evidence is sourced and compiled systematically, they are not systematic reviews. They do not seek to summarise theoretical literature or to explore in any depth the concepts covered by the scan or those arising from it.

This evidence scan was initially commissioned to inform attendees at the National Summit on Quality in General Practice, held at the Royal College of General Practitioners on 31 July 2014. The theme of the day was *Sustaining and improving the quality of general practice*.

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# Overview

This evidence scan was initially commissioned to inform attendees at the National Summit on Quality in General Practice, held on 31 July 2014. The theme of the day was *Sustaining and improving the quality of general practice*.

The scan is divided into three parts:

- Part 1 explores how quality could be defined, drawing upon literature from leading thinkers and organisations in health care and quality improvement.
- Part 2 summarises empirical evidence on what people using services think of general practice, and the features they think are important in good quality general practice care.
- Part 3 compiles empirical research about interventions that have been tested to improve the quality of general practice care.

Although the research covered is disparate and does not provide a simple solution to improving quality, it shows that a great deal has been published on the topic and that there is much scope to use the existing knowledge base to promote, inspire and engage with improvement.

## Key findings

### What is quality?

- There is no one definition of quality in general practice.
- An appropriate conceptualisation of quality depends on what the information will be used for.
- Contextual factors such as location, policy priorities, discipline, demographics and measurement approaches all influence what is valued as good quality.
- However, there is a lot of consistency within frameworks about quality in health care, with a focus on patient experience, clinical effectiveness and safety.
- A question remains about whether these three domains are the most important for general practice, and whether other components such as generalism and holistic care need to be included.

### What does ‘good quality general practice’ look like to patients?

Research suggests that the top factors influencing whether people believe they have experienced high quality care are:

- good interpersonal skills from clinicians and receptionists, including communication and empathy
- easy access to care, including convenient appointments with a familiar clinician
- being involved in care processes, including sharing in decisions and being supported to self-manage.

Aspects such as technical skills and safety are less often mentioned as key components of quality, perhaps because patients take these for granted.

### What interventions improve quality in general practice?

Interventions can be divided according to whether they are targeted at the level of the patient, the practitioner or the wider practice or system. Interventions that have been shown to be effective at each of these levels include the following:

- Patient level: improving access, increasing the duration of consultations, seeing the same clinician over time, patient education, patient access to records, gaining feedback from patients and using technology and other support tools.
- Practitioner level: training in quality improvement methods, interprofessional learning, audit and feedback, educational outreach visits, improvement collaboratives, decision support tools, nurse-led services and increased staffing levels.
- Practice/system level: providing a wider range of services, quality improvement projects, telehealth, clinical audit, significant event analysis, electronic tools and improving data collection and error reporting.

**Part 1:**  
**Defining quality**  
**in general practice**

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# What is quality?

## Part 1 of this scan explores how quality in general practice could be defined

### Overview

General practice is at the heart of health care in the UK and acts as a gateway to other services. Since 2004, people in England and Wales have been registered with a practice, rather than with an individual GP, but practices vary widely in terms of the number of staff and services provided.

According to patient ratings and clinical outcome metrics, the majority of care provided in UK general practice is of good quality, but there is always room for improvement. An inquiry into the quality of care in general practice found a particular need for improvement in the clinical areas of diagnosis, referral, prescribing, health promotion and managing long-term conditions. There may also be a need for improvement in non-clinical areas such as access, continuity of care and patient involvement.<sup>1</sup>

### Domains of quality

Quality is a complex concept and means different things to different people. Broadly speaking, quality is about the 'degree of excellence' in health care, but there are many components that could be considered when judging excellence. Many frameworks have sought to identify the components of quality in health care, but there is no agreed definition about what constitutes quality in general practice.

Judgements about what is good and what is poor quality are based on values, context and priorities. Thus, it is not possible to say that something is inherently of good quality because such judgements may differ depending on the time period, geographic context, social norms, policy priorities, alternatives available, demographic characteristics and so on. Different practitioner groups such as GPs and practice nurses may have different priorities and these in turn may vary from those of patients and their families.

Bearing in mind these issues, a number of frameworks have attempted to list the key domains of health care quality. The NHS Next Stage Review, US Institute of Medicine, Organisation for Economic Co-operation and Development (OECD), Care Quality Commission (CQC) and many other frameworks have defined quality domains (see Table 1).<sup>2-4</sup>

Domains commonly featured in conceptualisations of health care quality include person-centred care/patient experience, clinical effectiveness and safety. The NHS Next Stage Review defined quality in health care using these exact three domains: safety, experience and effectiveness.<sup>5</sup>

NHS England has largely retained this definition of quality, but expanded upon the categories so they map against the five outcome domains of the NHS Outcomes Framework.<sup>6</sup> General practice, like all NHS services, is judged against these outcomes:

- Clinical effectiveness, including:
  - reducing avoidable mortality
  - improving quality of life for people with long-term conditions
  - providing swift and effective responses to acute illness or injury.
- Patient experience, including experience of access
- Patient safety.<sup>7</sup>

Thinking more specifically about general practice, the CQC has outlined a new approach for inspecting and regulating GPs and out-of-hours services which covers five key questions:<sup>8</sup>

- Are services safe?
- Are services effective?
- Are services caring?
- Are services responsive?
- Are services well led?

**Table 1: Domains of quality featured in various frameworks<sup>9</sup>**

Domain	Performance Assessment Framework, 1999 <sup>10</sup>	Institute of Medicine, 2001 <sup>11</sup>	OECD, 2006 <sup>12</sup>	Quest for Quality, 2008 <sup>13</sup>	Next Stage Review, 2008 <sup>14</sup>	CQC inspection framework, 2014 <sup>15</sup>
Safe		X	X	X	X	X
Effective	X	X	X	X	X	X
Person-centred	X	X	X	X		X
Patient experience					X	
Timely		X	X	X		
Access	X			X		
Efficient	X	X				
Equitable		X		X		
Cost/expenditure			X			
Capacity				X		
Health improvement	X					
Outcomes of care	X					
Caring						X
Well-led						X

These questions focus explicitly on safety and effectiveness, as well as some aspects that may impact on patient experience.

However, there are things that are not covered within these domains. For example, some writers have suggested that the three core values of general practice are excellence as medical generalists, commitment to whole-person care and patient advocacy.<sup>16</sup> Others have called attention to the fundamental values of medical ethics, including autonomy, justice, beneficence and non-maleficence.<sup>17</sup> There are also specific criteria used to judge fitness to practice and revalidation which may help to create a fuller picture of quality in general practice.<sup>18–20</sup> Patients tend to value interpersonal relationships, community and continuity.<sup>21–23</sup>

As well as thinking about important facets of quality in general practice, it may be equally important to consider what does not fall within the definition of ‘quality.’ Planners and policy makers often place emphasis on information about value for money. The CQC previously included value for money as one of their quality domains. However, the current inspection framework no longer includes explicit reference to this.

A key issue when considering the concept of quality is the **purpose** for which such definitions will be used. For example, the scope of ‘quality’ may vary when assessing an individual practitioner versus an organisation. It might change when assessing quality for improvement, assurance or control. The way quality is conceptualised might also alter depending on the target audience, such as regulators and commissioners compared to patients and families.

Another key issue relates to how quality is **measured**.<sup>24</sup> We tend to focus on what is measured, even if these measures are partial or misleading. In general practice, the Quality and Outcomes Framework (QoF) measures the extent to which certain clinical targets are met, and has tended to focus predominately on process rather than outcome measures. This may mean that more focus is given to those aspects of quality compared to non-incentivised factors. But quality in general practice may be more complex than clinical indicators, especially if issues such as holistic care, medical generalism and interpersonal relationships are valued.

## Summary

- There is no single definition of quality in general practice.
- An appropriate conceptualisation of quality depends on what the information will be used for.
- Contextual factors such as location, policy priorities, discipline, demographics and measurement approaches all influence what is valued as good quality.
- However, there is a lot of consistency within frameworks about quality in health care, with a focus on patient experience, clinical effectiveness and safety.
- A question remains about whether these three domains are the most important for general practice, and whether other components such as generalism and holistic care need to be included.



**Part 2:**  
**What does 'good quality  
general practice'  
look like to patients?**

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# Key messages

Part 2 of this scan compiles research about the features that people using services think are important in good quality general practice care.

## What is important to people?

General practice plays a central role in UK health care. Patient surveys suggest that people are generally satisfied with general practice, though there is always room for improvement. We searched five bibliographic databases to understand the dimensions of quality that are important to general practice patients. Themes were extracted from more than 4,000 empirical studies from around the world (see Table 2).

Research suggests that the top factors influencing whether people believe they have experienced high quality care are:

- good interpersonal skills from clinicians and receptionists, including **communication and empathy**
- easy **access** to care, including convenient appointments with a familiar clinician
- being **involved** in care processes, including sharing in decisions and being supported to self-manage.

Aspects such as technical skills and safety are less often mentioned as key components of quality, perhaps because patients take these for granted.

## What does this mean for general practice?

- Other definitions or quality frameworks may prioritise clinical outcomes, technical skills and value for money. Research suggests that interpersonal aspects and access are more important indicators of quality to general practice patients so these features should be recognised when planning **improvement initiatives**.
- Clinicians may not always prioritise the same things as patients. Being aware that communication, empathy, access and involvement are central to patient opinions of quality may help general practice teams provide more **person-centred care**.
- Access, continuity, communication and staffing are all cited as components of quality in many other health care sectors, so general practice is not unique in this regard. However, the fact that empathy and relationships are more commonly prioritised than clinical outcomes and patient safety suggests that there may be some **unique aspects of quality in general practice** that require further exploration.

**Table 2: Which features do people think are important for good quality general practice care?**

Feature	Impact on perceived quality	Evidence quantity	Evidence quality
<b>How care is accessed</b>			
Access to prompt convenient appointments	High impact	Large quantity	Good quality
Ability to see preferred clinician	High impact	Large quantity	Good quality
Ability to book appointments in advance	Medium impact	Medium quantity	Medium quality
Availability of telephone support	Medium impact	Small quantity	Medium quality
Appointment duration	Medium impact	Medium quantity	Medium quality
Access to repeat prescriptions	Low impact	Low quantity	Medium quality
<b>What care is provided</b>			
Continuity of care	High impact	Large quantity	Good quality
Range of services provided	Medium impact	Medium quantity	Medium quality
Links with other services	Medium impact	Small quantity	Medium quality
Nurse-led care	Medium impact	Large quantity	Good quality
Helpful reception staff	Medium impact	Small quantity	Medium quality
<b>How care is provided</b>			
Involving patients	High impact	Large quantity	Good quality
Good communication	High impact	Large quantity	Good quality
Demonstrating empathy	High impact	Large quantity	Good quality
Positive interpersonal relationships	High impact	Large quantity	Good quality
Small practice size	Medium impact	Medium quantity	Medium quality
Fundholding	Medium impact	Small quantity	Low quality
Cultural competence	Low impact	Small quantity	Low quality
Clean environment	Low impact	Small quantity	Low quality
<b>What practices achieve</b>			
Improved clinical outcomes	Low impact	Medium quantity	Medium quality
Safe care	Low impact	Small quantity	Low quality
Quality ratings	Low impact	Small quantity	Low quality

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# Scope

This section describes why it is important to know what patients think makes good quality general practice care and how research evidence was compiled.

## Purpose

In the UK, general practice provides the first point of health care support for most people. Many conditions are managed by general practice teams over a long period, and general practice also acts as a gatekeeper for referring to community and hospital services. The number of people accessing general practice and the central role this care plays in the health system makes this a very visible component of the NHS.

Patient surveys and online ratings suggest that people are generally satisfied with the quality and quantity of general practice care they receive, though there is always room for improvement.<sup>25-30</sup> Audits and inquiries have also suggested scope to improve the quality and safety of care provided.<sup>31</sup> There are links between people's perceptions of the quality of care and clinical effectiveness.<sup>32</sup>

Many initiatives have sought to improve the quality of general practice care, but it remains unclear whether these interventions are addressing the things that are most important to patients. In order to provide more person- and family-centred care, it is important that health services are aware of what patients prioritise and can take these features into account when planning changes.

Therefore, this section addresses the question:

- What do patients think makes good quality general practice care?

The aim was to explore what empirical research is available about the factors that patients consider most important in good quality general practice. For example, if people have longer appointments, this may influence the extent to which they believe they have received high quality care.

'Quality' relates to people's expectations, experiences, perceptions and satisfaction. The scan did not attempt to disentangle these complex concepts, and instead focused on providing high-level themes regarding the factors that appear most important to people. It explored whether people's perceptions of quality are influenced by things such as good access to care, patient involvement in decision-making, staff characteristics and so on. This is important because knowing what 'good quality' looks like to patients will contribute to discussions about how patient and health service priorities may differ, and which types of improvement efforts may need to be prioritised.

## Approach

To explore what people think makes good quality general practice, we focused on readily available research published in journals in the UK and internationally. We completed the searches over a one-week period.

To be eligible for inclusion in the scan, studies had to:

- focus on general practice specifically (rather than the wider remit of primary care). General practice included GP and practice nurse consultations, nurse practitioner triage, telephone consultations with the 'duty' doctor, deputising services that provide out-of-hours care and so on
- include empirical data about patient views
- examine how factors such as length of appointments, the relationship between patients and clinicians, consultation skills, access to care and so on may influence whether people believe good quality care is provided
- be published in a print or online journal
- be published in the English language
- be published between 2004 and early July 2014.

There were no geographic restrictions.

To identify relevant research, two reviewers independently searched five bibliographic databases for studies of any design. The databases comprised Pubmed/Medline, Embase, Cinahl, the Cochrane Library and Controlled Trials Register and PsychInfo.

Search terms included combinations of: general practice; primary care; family practice; family medicine; patient experience; satisfaction; expectations; priorities; dissatisfaction; preferences; quality; quality of care; access; patient opinion; GP; practice nurse; out-of-hours; patient evaluation; patient ratings; and similes of these.

Abstract and title searches identified 4,742 studies of relevance. It would not be feasible to list so many citations, so key themes were extracted from the abstracts of all of these studies and the full text of 228 studies was sourced to provide further detail.

The aim was not to describe the findings of individual studies, but rather to compile a simple listing of the factors that are most commonly reported as being important to patients or which affect their views of the quality of general practice.

Findings were extracted independently by two reviewers using key theme analysis. Forty-three percent of the studies came from the UK and Ireland, 22% were from other parts of Europe, 19% were from North America and 15% were from other countries. Many of the studies were based on large-scale or national patient surveys, though there were also more qualitative interview analyses.

**All of the evidence was sourced and compiled systematically, but this is not a systematic review and we do not seek to summarise every study about patient perceptions of quality of general practice.**

Instead, the focus is on providing a rapidly compiled summary of the most common trends in the empirical literature.

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# Important features

This section summarises themes from empirical evidence about how patients define good quality in general practice.

## Overview

Features that patients and families thought contributed to the quality of general practice included:

### Access

- Prompt access to appointments when needed (prompt booking and lack of waiting while at the clinic)<sup>33–56</sup>
- Ability to see or speak to preferred clinician<sup>57–65</sup>
- Duration of appointment<sup>66–74</sup>
- Availability of support by telephone<sup>75–80</sup>
- Ability to book in advance<sup>81–83</sup>
- Clinic hours / Saturday appointments<sup>84,85</sup>
- Close geographic location<sup>86,87</sup>
- Ease of ordering and obtaining regular medication (repeat prescriptions / length of prescriptions)<sup>88</sup>

### Care co-ordination

- Continuity of care (seeing the same professional)<sup>89–108</sup>
- Good liaison, links with and transitions to other health services<sup>109–114</sup>
- Use of IT to facilitate treatment and coordination<sup>115–118</sup>

### Interpersonal issues

- Good clinician communication skills (listening and explaining)<sup>119–143</sup>
- Empathy and emotional support (showing care, concern and understanding)<sup>144–155</sup>
- Positive interpersonal relationships with clinicians (leading to greater confidence and trust)<sup>156–165</sup>
- Helpful reception or support staff<sup>166–170</sup>
- Clinician awareness of cultural issues (cultural competence)<sup>171,172</sup>
- Involving family members<sup>173</sup>

### Involvement

- Involvement in decision-making if desired<sup>174–185</sup>
- Support to self-manage<sup>186–188</sup>
- Taking account of patient views / taking people seriously<sup>189–192</sup>
- Patient access to their medical records<sup>193</sup>

### Service provision

- Provision of specific types of services, such as case management, telehealth, point of care testing and interpreters<sup>194–199</sup>
- Supporting preventive care<sup>200–202</sup>
- Provision of an adequate amount and appropriate type of information<sup>203–206</sup>
- More direct access to services rather than relying on GP referrals<sup>207</sup>

### Staffing

- Practice nurses running clinics and appointments<sup>208–216</sup>
- Perceived technical skills of clinicians<sup>217–221</sup>
- Adequate numbers of GPs and nurses<sup>222</sup>

### Safety

- Cleanliness and neatness of environment<sup>223</sup>
- Perceived safety of care provided<sup>224</sup>
- Appropriate prescribing<sup>225</sup>

### Clinical features

- Thorough physical examination<sup>226,227</sup>
- Reduced symptoms or improvement in clinical outcomes<sup>228–230</sup>

### Other issues

- Smaller practice size / smaller individual GP lists<sup>231–238</sup>
- Ratings of quality or reports from other service users<sup>239,240</sup>
- Fundholding<sup>241</sup>

These features can be broadly grouped into the following categories:

- How people access care.
- What type of care is provided.
- How care is provided (style).
- The outcomes of care.

These features are similar to the characteristics found to be important for good quality in other sectors of health care.<sup>242</sup> In general practice however, communication and relationships may be more highly prioritised by patients.

Many other features may be important indicators of the quality of care for patients, but the listing above illustrates features that have been most commonly researched.

The relative priority of these features will differ among individuals and among groups of patients. Just because communication has been found to be a high priority in much research does not mean that this will be the highest priority for a specific patient, for example. People from certain age or ethnic groups may also have varying views.

The following pages describe some of the characteristics that have been found to influence how people view different aspects of quality.

## What influences people's views about access?

Gaining access to general practice quickly and conveniently is a high priority for patients and influences their perceptions of the quality of care. However, 'access' should not be confused with 'speed.' Some UK research suggests that it is a higher priority for people to be seen on their **day of choice** rather than to be seen quickly<sup>243,244</sup> and that more same-day appointments can actually reduce the perceived quality of care.<sup>245</sup>

Discrete choice experiments in the UK have found that people prefer to wait longer to see a **familiar GP** who is well informed about them, especially when they have a problem causing uncertainty or when they need a routine check-up. They may prefer quick access for minor 'low impact' symptoms.<sup>246</sup> Thus speed of access may only be of medium importance and for many patients may be outweighed by access to their choice of GP or convenience of appointment time.<sup>247–250</sup>

Factors that have been found to influence the extent to which people rate access to general practice highly include:<sup>251</sup>

- age
- ethnicity
- working status
- distance travelled to work
- general practice size.

For instance, a survey with almost two million people from England found that younger people, Asian people, those working full time and those with long commuting times reported the lowest levels of satisfaction with access to general practice. Patients in small practices were more likely to say access was good.<sup>252</sup>

Another example comes from a survey about out-of-hours care in Ireland which found that those in poorer health were less likely to feel they received good quality care with appropriate access.<sup>253</sup> And in the US, people living in more deprived areas were less likely to rate access to general practice care positively.<sup>254</sup>

In Australia, those from smaller practices (with one to three GPs) reported better access to care compared to larger practices.<sup>255</sup>

Perceptions about **consultation length** also play a role in how patients view access quality. Research in England found that most people wanted longer consultations, though many underestimated their visit length. When clinicians actively listened, people felt more satisfied with the consultation length and reported being more motivated to follow any care recommendations. Thus it may not only be how long the appointment is, but what is done within it that influences perceived quality of care.<sup>256</sup>

An analysis of the national GP patient survey for England found that non-white people gave higher priority to having enough time during consultations than did white people.<sup>257</sup>

## What influences people's views of the type of care?

### Service provision

People's **expectations** of the types of services that should be available influence the extent to which they believe they have received good quality care.<sup>258–260</sup> For example, a study of out-of-hours GP services in Wales found that patients had specific expectations and there was sometimes a mismatch with what the service actually

provided. Unmet expectations resulted in repeated consultations.<sup>261</sup> Similar findings were apparent in research conducted in Northern Ireland.<sup>262</sup>

## Continuity

Factors found to influence the extent to which people rated continuity and care coordination in general practice highly include:<sup>263</sup>

- seeing the same practitioner repeatedly over time
- good liaison with hospitals and community services
- using IT systems to ensure notes are available when seeing different professionals.

In the US, people living in more deprived areas were less likely to rate care coordination and continuity within general practice positively.<sup>264</sup>

## Staffing

The extent to which people see their **preferred doctor** can have a significant impact on how they perceive the quality of care. US studies suggest that well organised care from a larger number of professionals can be rated just as highly, as long as the care is well coordinated.<sup>265</sup> However, research in Europe suggests that practices with a larger number of practitioners are likely to be rated less highly than smaller practices.<sup>266</sup>

Patients generally do not think that having a **trainee doctor** present reduces the quality of care, and think it may actually improve quality if extra time and more thorough procedures are followed.<sup>267,268</sup> However, older people may be more likely to believe that consulting trainee doctors reduces the quality of care provided, particularly if this reduces continuity with their usual practitioner.<sup>269,270</sup>

The roles that **nurses** play in general practice may also impact on the extent to which people believe they receive good quality care.<sup>271</sup> A discrete choice experiment conducted with 451 people in England found that people rated general practice just as highly if they saw a nurse rather than a doctor, as long as the nurse showed empathy, took on board the patient's views and offered appropriate help. Past experience influenced people's preferences.<sup>272</sup> The perceived appropriateness of nurse care is supported by international research.<sup>273,274</sup>

Some studies suggest that people may prefer to see doctors for complex medical aspects of care, but believe that educational and routine aspects of care can be provided just as well by nurses.<sup>275–277</sup>

Researchers from Scotland found that women, younger people, those with a higher income and the less well educated all had more positive attitudes towards practice nurses compared to GPs, whereas older people tended to prefer seeing a doctor.<sup>278</sup> This is supported by studies from other parts of the world.<sup>279</sup>

A limited amount of research has examined the impact of what general practice staff wear on patient perceptions, finding that **attire** had little impact on quality assessments.<sup>280</sup>

General practitioner morale has also been found to have little impact on patients' perceived quality of care.<sup>281</sup>

## What influences people's views about the style of care?

### Communication

Analysis of the English GP patient survey, which is conducted with about two million patients from over 8,000 practices, suggests that **doctor communication most influences people's overall level of satisfaction with general practice**.<sup>282</sup> A systematic review found that demonstrating empathy improved patient satisfaction, strengthened patient enablement and reduced anxiety and distress.<sup>283</sup>

Demographic factors such as age and ethnicity influence the extent to which people believe that communication is good quality in general practice.<sup>284</sup> For example, older people may be more likely to rate the quality of interpersonal relationships and communication highly.<sup>285</sup>

Gender may also play a role.<sup>286</sup> A study in Switzerland found that the gender of pairs of patients and professionals influenced the importance of communication styles. For instance, where both patients and professionals were male, the clinician's communication style did not influence patient perceptions of the quality of care. However, when the patient and professional were both women, a more 'caring' communication style was associated with higher quality ratings.<sup>287</sup>

Studies have found that people rate the quality of care more highly when clinicians match their language with that of patients rather than using medical jargon.<sup>288</sup>

### Involvement

How engaged and involved people feel can impact significantly on the perceived quality of care. Studies suggest that people often want to be more involved in decisions about their care and supported to self-manage within general practice.<sup>289</sup>



People who feel more activated may also feel more satisfied with the care they receive.<sup>290</sup> However, people do not always want to be heavily involved in decisions about their care, so it is important that individual preferences in this regard are respected.<sup>291,292</sup>

Factors found to influence the extent to which people rated involvement in decision-making or self-management within general practice highly included:

- age
- ethnicity
- condition type.

For example, a national survey with more than 40,000 people with cancer found that younger people and ethnic minorities reported less involvement in decisions about their care, and this influenced their perceptions of the quality of care in general practice. Experience differed according to the type of cancer people had.<sup>293</sup> On the other hand, other studies have suggested that older people and those who have been receiving care for longer are less likely to take part in shared decision-making.<sup>294</sup>

Analysis of the English national GP patient survey found that people's sense of being 'taken seriously' had the strongest link with confidence and trust in clinicians. Involvement in decisions about their care was more strongly linked to older people's level of reported confidence and trust than for younger patients.<sup>295</sup>

## What influences people's views about outcomes?

### Safety

Interestingly, safety is not a factor that patients usually comment on unprompted when discussing the perceived quality of general practice. This may be because it is assumed that safe care is provided in general practice or because fewer risks are perceived in general practice in comparison to hospital. Patients tend not to mention issues such as delayed or missed diagnoses unless prompted.

There is little empirical research about people's perceptions of safety in general practice so it is difficult to draw conclusions about any factors that may influence these perceptions.

## Other influences on views of quality

Research suggests that a number of overarching factors influence people's expressed perceptions, expectations, experience and satisfaction with general practice.

These include:<sup>296-311</sup>

- age
- ethnicity
- socio-economic status
- gender
- frequency of visits
- health status
- specific conditions.

Such variables have been found to influence the ratings given to general practice by up to 30%.<sup>312</sup>

For example, in the English national GP patient survey, South Asian and Chinese patients, younger people and those in poor health reported a less positive experience of care.<sup>313</sup> People living in areas of higher deprivation were also more likely to feel they received a lower quality of care.<sup>314</sup> Gender differences tended to be small and inconsistent. Researchers have suggested that since there are large variations in the perceived quality of care reported by ethnic minority patients in different practices, practices with high patient experience scores could be studied as models for quality improvement.

The **way that information is collected** from patients may also influence how quality is assessed. Factors to consider here include:

- the method of data collection (for example, online rating sites, postal surveys, survey given out at practices, web surveys, telephone surveys, face-to-face interviews, feedback cards)<sup>315-318</sup>
- when feedback is collected (immediately after appointments or weeks or months later).<sup>319</sup>

Many other factors have also been found to influence people's perceptions of quality. For example, fundholding, whereby general practices have the option of holding commissioning budgets for prescribing and elective secondary care, has been linked with lower perceptions of the quality of care. A survey with more than 4000 people in England found that patients of fundholding practices were less satisfied with the opening hours of their practice, their GP's knowledge of their medical history, their GP's ability to arrange tests and willingness to refer to a specialist. They were more likely to think that their doctor was more concerned about keeping costs down than providing good quality care.<sup>320</sup>

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# Implications

This section highlights some of the key next steps in using patient perspectives to improve the quality of care.

## What is important to patients?

This summary of almost 5,000 studies suggests that to patients, good quality general practice care includes:

- good interpersonal skills from clinicians and receptionists, including **communication and empathy**
- easy **access** to care, including prompt appointments and telephone support
- being **involved** in care processes, including sharing in decisions about care and being supported to self-manage.

Issues such as safety and prescriptions are less prioritised. This is not to suggest that these things are not important, but rather that they do not appear to be the main drivers of how patients view quality in general practice.

UK studies have particularly emphasised the importance of doctor communication, the helpfulness of reception staff and other communication and interpersonal factors (ie focusing on ‘how care is provided’).<sup>321</sup> The technical skills of clinicians and patient safety issues were not emphasised in UK studies, but this may be because they were taken for granted rather than because they were not seen as important.

## What does this mean for general practice?

Definitions of the quality of health care often focus on things such as patient safety, clinical effectiveness and value for money. While these things are all important, this scan suggests that interpersonal issues and sharing of decisions may be more central to patient experience of quality in general practice. **What patients think comprises high quality care may not be the same as what is prioritised in traditional quality measures.**<sup>322,323</sup> Research also suggests that **clinicians tend to prioritise different things** to patients and may not be able to predict patient views of or preferences for care.<sup>324–326</sup>

Patient experience is one component of quality considered in many definitional frameworks, and this scan suggests that **communication and empathy, access and involvement** may be key factors influencing patient experience in general practice. These factors could usefully be built into any future conceptualisations of quality in general practice.

It may be important to think carefully about the other components of quality that are prioritised alongside patient views so that other aspects do not overshadow patient priorities.<sup>327</sup> Research from the US suggests that a greater emphasis on productivity and efficiency components of quality can actually lead to decreases in performance on communication and patient interaction, for example.<sup>328</sup>

Interpersonal and communication issues may be central when prioritising improvements to the quality of general practice. Research suggests a number of facilitators are important when shifting to more person-centred general practice that focuses on the domains of quality that are most important to patients. These facilitators include committed senior leadership; clear communication of a shared strategic vision; active engagement of patients and families at all levels; adequate resourcing to support redesigning care delivery; accountability and incentives; a learning and improvement culture; and focusing on improving staff satisfaction and working environment.<sup>329</sup> It takes time and commitment to transition from a ‘provider focus’ to a more person-centred focus.

Research in England has found that the characteristics of general practice that may be the strongest predictors of clinical quality include using patient experience surveys; education and training; and clinical recording and auditing.<sup>330</sup> In other words, in order to enhance the quality of general practice from both the patient perspective and in terms of clinical outcomes, it may be important to ask patients what they want, train staff to provide this and check the extent to which these things are being achieved.

## Caveats

When interpreting the findings, it is important to bear in mind a number of things.

### 1. Scope

Firstly, the scan is not exhaustive. Many thousands of articles have been published about patient perceptions of quality in general practice. The scan was prepared within a week and presents key themes from readily available published empirical studies to give a flavour of available research, to signpost readers to interesting material and to highlight some of the most commonly mentioned issues.

There are many other descriptions of patient perceptions and preferences but such descriptions were not eligible for inclusion unless they were based on published empirical research. Grey literature was not included and this means that some examples will have been omitted.

There may also be things that are important to patients on a day-to-day basis that are not included because there is little research published about them.

### 2. Content

Another important point is that there are relatively few studies providing detail about what people mean by various facets of care, why these things are important to people and whether priorities are different based on demographics or geography. In other words, it is possible to draw out high level themes, but less information is available about the rationale underpinning them.

### 3. Generalisability

There are also some caveats about the quality of studies. Many of the studies were conducted in single sites, often outside the UK. General practice in other parts of the world is different to the UK and this may affect the generalisability of the findings. It may be that what people in the US think comprises high quality care is different to what people think in the UK, for example. At a high level, the factors perceived to make up good quality care were consistent across different locations, though the relative priority awarded to various features may alter. For example, UK studies emphasised interpersonal relationships, continuity and communication, whereas studies from the US and Asia were more likely than those from the UK to mention technical competency.

The studies included tended to use simple cross-sectional designs such as surveys or focus groups, sometimes with small numbers of people. The scan did not seek to appraise the quality of the various studies or to weight the evidence contained within them.

Neither did the scan focus on the extent to which general practice in the UK is currently addressing the things that people say are important in the provision of high quality care. Thus it provides only part of the story, by focusing on what people say is important, rather than whether they are getting it.

It is useful to keep these points in mind when thinking about the findings and their implications for practice. However, despite these issues the scan highlights that there is a wealth of evidence available about what people want from general practice and what they associate with 'good quality care.' An important next step is to consider the extent to which UK general practice currently meets these priorities.

Having an understanding of patient opinions about what comprises good quality care may help to prioritise aspects of general practice that need further development, thus shaping a more person-centred health care system.

**Part 3:**  
**Which interventions  
improve quality  
in general practice?**

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# Key messages

Part 3 of this scan compiles research about interventions that have been tested to improve the quality of general practice care.

## What interventions are used?

Many initiatives have aimed to improve the quality of care in general practice. However, it remains unclear which interventions may be most effective and worthy of pursuing further. To help address this question, we have compiled up-to-date evidence about interventions to improve the quality of care in general practice. This is a very wide question, so we focused on the three domains of quality most commonly mentioned in other frameworks: patient experience, clinical outcomes and safety.

Five bibliographic databases were searched and key themes from almost 20,000 studies were summarised.

Table 3, overleaf, summarises the most commonly researched interventions to improve quality in general practice. However, just because an intervention is not listed in this table does not mean that it does not have value. Instead, there may be little research about the initiative, particularly in the case of structural or policy changes or ways of funding or running general practice organisations. Even where research exists, the findings for some interventions may be very mixed due to being implemented in widely varying geographic and political contexts, with different levels of support.

Interventions can be divided according to whether they are targeted at the level of the patient, the practitioner or the wider practice or system. Some interventions may span more than one of these levels, but this distinction provides some clarity about the main focus.

- **Interventions targeting the patient level** which have been found to work well include improving access, increasing the duration of consultations, seeing the same clinician over time, patient education, patient access to records, gaining feedback from patients and using technology and other support tools.
- Effective **interventions targeting professionals** include training in quality improvement methods, interprofessional learning, audit and feedback, educational outreach visits, improvement

collaboratives, decision support tools, nurse-led services and increased staffing levels.

- **Practice-level interventions** with the greatest amount of research support include providing a wider range of services, quality improvement projects, telehealth, clinical audit, significant event analysis, electronic tools and improving data collection and error reporting.

## What does this mean for general practice?

- The specific intervention chosen may be less important for facilitating improvement than the way in which it is implemented.
- The most significant and sustainable changes are likely to take time to embed, especially where more complex service redesign and culture change is required.
- Interventions may be more likely to be successful when implemented as part of a suite of changes rather than as a standalone intervention. Interventions which simultaneously target patients, professionals and wider practice systems have been found to work well.
- Many factors are likely to play a role in the effectiveness of a specific intervention. Improvement does not take place in a vacuum. It needs to take account of the policy, geographic, socio-demographic and financial contexts in which general practice operates.
- Although the UK is well represented in research about improving the quality of general practice, a large body of evidence is sourced internationally. This raises questions about the generalisability of the evidence. What works well in the US may not translate readily to the UK context, for example.
- There is well-established literature about interventions to improve the quality of health care more widely. However, general practice has different models of education, staffing, financing and guidelines, and it cannot be assumed that interventions will readily translate from one sector or country to another.

**Table 3: Interventions that research suggests may improve quality in general practice**

Intervention	Improving experience	Improving clinical outcomes	Improving safety
<b>Interventions targeting patients</b>	<ul style="list-style-type: none"> <li>- Improving access interventions</li> <li>- Increased appointment length</li> <li>- Continuity of care</li> <li>- Person-centred consultations</li> <li>- Patient access to records</li> <li>- Gaining feedback from patients</li> </ul>	<ul style="list-style-type: none"> <li>- Patient education</li> <li>- Using technology</li> <li>- Other support tools</li> <li>- Layperson-led services</li> </ul>	<ul style="list-style-type: none"> <li>- Patient education</li> </ul>
<b>Interventions targeting professionals</b>	<ul style="list-style-type: none"> <li>- Nurse-led services</li> </ul>	<ul style="list-style-type: none"> <li>- Training in quality improvement</li> <li>- Interprofessional learning</li> <li>- Audit and feedback / peer review</li> <li>- Improvement collaboratives</li> <li>- Decision support tools</li> <li>- Nurse-led services</li> <li>- Health educators</li> <li>- Joint consultations</li> <li>- Increased staffing levels</li> </ul>	<ul style="list-style-type: none"> <li>- Extra training for trainee doctors</li> <li>- Pharmacist-led education</li> <li>- Prescribing outreach visits</li> <li>- Improvement collaboratives</li> <li>- Peer review and feedback</li> </ul>
<b>Interventions targeting whole practices or systems</b>	<ul style="list-style-type: none"> <li>- Providing a wider range of services</li> <li>- Point of care testing</li> <li>- Quality improvement projects</li> </ul>	<ul style="list-style-type: none"> <li>- Providing a wider range of services</li> <li>- Telehealth</li> </ul>	<ul style="list-style-type: none"> <li>- Pharmacist services in general practice</li> <li>- Guideline implementation</li> <li>- Clinical audit</li> <li>- Significant event analysis</li> <li>- Quality improvement projects</li> <li>- Electronic medical records</li> <li>- Electronic referral systems</li> <li>- Improving data collection and error reporting</li> </ul>

**Note:** This table lists the interventions where the totality of evidence suggests benefits. Tables 4, 5 and 6 list the quality and quantity of evidence available about each initiative, plus interventions where there is mixed or little evidence of effect. There is the greatest amount of research of highest quality for interventions to improve access, seeing the same clinician repeatedly, involving patients in decisions, self-management education for patients, providing a wider range of services at practices (including pharmacist services) and audit and feedback/peer review.

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# Scope

This section describes how we defined quality in general practice and how we compiled research evidence.

## Purpose

General practice is at the heart of health care in the UK and acts as a gateway to other services. It comprises GP and practice nurse consultations, telephone consultations, deputising services that provide out-of-hours care and a range of other services. Since 2004, people in England and Wales have been registered with a practice, rather than with an individual GP, but practices vary widely in terms of the number of staff and services provided.

An inquiry into the quality of care in general practice found that the range of activities provided has increased and that general practice plays an important role in coordinating care provided in other settings. However, there are projected shortages in the general practice workforce and many complications due to contracting models, incentives, targets and greater demands from patients.<sup>331</sup> According to patient ratings and clinical outcome metrics, the majority of care provided in UK general practice is of good quality, but there is always room for improvement. The inquiry suggested particular need for improvement in the clinical areas of diagnosis, referral, prescribing, health promotion and managing long-term conditions. There may also be a need for improvement in non-clinical areas such as access, continuity of care and patient involvement.

Many initiatives have aimed to improve the quality of care in general practice, often with mixed findings.<sup>332,333</sup> It remains unclear which interventions may be most effective and worthy of pursuing further. Therefore, we have briefly summarised what research is available about interventions to improve the quality of care in general practice. This is a very wide question, so we focused on three priority areas, addressing the following questions:

- What interventions have been found to improve **patient experience** in general practice?
- What interventions have been found to improve **clinical outcomes** in general practice (excluding pharmaceuticals and equipment)

- What interventions have been found to improve **patient safety** in general practice?

These three areas were chosen as they are the three most prevalent domains in other health care quality frameworks. However, it is acknowledged that there may be other aspects of quality specific to general practice.

The aim was not to provide an in-depth description of interventions and their success factors, but rather to list the types of interventions that have been tested in order to help spark ideas about what could be investigated further and to identify gaps in existing knowledge.

## Approach

To explore how to improve quality in general practice, we focused on readily available research published in journals in the UK and internationally. We completed the searches over a one-week period.

To be eligible for inclusion, studies had to:

- focus on general practice specifically (rather than the wider remit of primary care)
- include empirical data about an intervention or interventions designed to improve patient experience, clinical effectiveness or patient safety
- be published in a print or online journal
- be published in the English language
- be published between 2004 and early July 2014
- be based in an industrialised / developed country.

The ‘interventions’ of interest were any change designed with the aim of improving the quality of patient experience, clinical outcomes or safety in general practice. These interventions could target patients, professionals or entire practices or systems, or a combination of audiences. They could involve changes to the funding or organisation of care or more specific changes to service delivery.

Interventions focused on any of the range of services that general practices provide were eligible, such as GP and nurse consultations, nurse practitioner triage, telephone consultations with the 'duty' doctor, deputising services that provide out-of-hours care and so on.

**Patient experience interventions** were defined as those that aimed to enhance patient satisfaction or experience with factors such as access, information provision and accuracy, transition and continuity of care.

**Clinical effectiveness interventions** were defined as those that aimed to improve patient clinical outcomes or symptoms through service redesign, teamwork and organisational development rather than medications or equipment.

**Patient safety interventions** were defined as those that focused on minimising harm, adverse events or errors or improving the reliability of care processes and systems to reduce the risk of harm.

'Improvements' in the quality of patient experience, clinical outcomes and safety were defined as per the indicators used in individual studies. In other words, if a study stated that an intervention was associated with an improvement in clinical outcomes, this was recorded as such, even though the specific indicators varied widely between studies. Many of the studies focused on changes in process but still defined these as improvements in clinical outcomes, for example.

To identify relevant research, two reviewers independently searched five bibliographic databases for studies of any design. The databases comprised Pubmed/Medline, Embase, Cinahl, the Cochrane Library and Controlled Trials Register and PsychInfo.

Search terms included combinations of: general practice; family practice; family medicine; general practitioner; primary care physician; family doctor; family physician; practice nurse; health visitor; out-of-hours; patient safety; clinical quality; quality improvement; patient experience; primary care; GP consultations; nurse practitioner triage; telephone consultations; duty doctor; adverse events error reduction; harm; clinical effectiveness; clinical outcomes; service redesign; teamwork; organisational development; funding, incentives, satisfaction; continuity of care; transformation; and similes of these.

Abstract and title searches identified 19,972 studies of relevance. It would not be feasible to list so many citations, so key themes were extracted from the abstracts of all of these studies and the full text of 300 studies was sourced to provide further detail.

Findings were extracted independently by two reviewers using key theme analysis. The aim was not to describe the findings of individual studies, but rather to compile a simple listing of the interventions that have been most commonly tested to improve quality, and high level themes about whether or not these interventions have been found to work.

Twenty-seven percent of the studies came from the UK and Ireland, 35% were from other parts of Europe, 21% were from North America and 17% were from other countries. There was a wide range of research designs, from randomised trials and systematic reviews through to before-and-after studies and small case studies.

**All of the evidence was sourced and compiled systematically, but this is not a systematic review and we do not seek to summarise every study about interventions to improve quality in general practice.** Instead, the focus is on providing a rapidly compiled summary of the most common trends in the empirical literature.



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# Interventions to improve patient experience in general practice

This section lists the most commonly researched interventions to improve patient experience in general practice and the extent to which they may be effective.

## Key trends

Table 4, overleaf, lists the most commonly researched interventions to improve patient experience in general practice.

The interventions are divided into those that target the level of the patient, those that work more at the level of practitioners and those that focus on practice-wide or system-level changes. These distinctions are somewhat arbitrary, however, because interventions may well work across a range of levels.

The interventions where there is most research suggesting effectiveness for improving patient experience in general practice were:

### Targeting patients

- Improving access to care
- Increased appointment length
- Continuity of care
- Person-centred consultations
- Patient access to records
- Gaining feedback from patients

### Targeting professionals

- Nurse-led services

### Targeting practices

- Providing a wider range of services
- Point of care testing
- Quality improvement projects

**Table 4: Which interventions improve patient experience in general practice?**

Focus	Intervention type	Does it work?	Evidence quality
<b>Interventions targeting patients</b>			
<b>Accessing care</b>	Access interventions (telephone call-backs, same-day appointments) <sup>334-341</sup>	Yes	Many studies, medium quality
	Outreach programmes for vulnerable / marginal groups and young people <sup>342,343</sup>	Unknown	Few studies, low quality
	Appointment duration <sup>344</sup>	Yes	Few studies, low quality
<b>Continuity</b>	Seeing same clinician <sup>345-351</sup>	Yes	Many studies, medium quality
<b>Communication and information</b>	Person-centred consultations <sup>352-354</sup>	Yes	Few studies, medium quality
	Use of interpreters, <sup>355</sup> chaperones <sup>356</sup> and family support <sup>357</sup>	Mixed	Few studies, low quality
	Changing the way in which information is provided (eg leaflets, online, health literacy initiatives)	Mixed	Many studies, low quality
	Tools (online tools / portals, patient access to electronic records, shared decision-making tools) <sup>358-360</sup>	Yes	Medium studies, low quality
	Online rating / feedback sites	Unknown	Few studies
<b>Involving patients</b>	Involving patients in decisions (via decision aids and training professionals in shared decision-making) <sup>361-367</sup>	Mixed, often yes	Many studies, medium quality
	Involving patients as part of the care team (eg lay health coaches) <sup>368</sup>	Unknown	Few studies, low quality
<b>Gaining feedback</b>	Patient feedback via surveys, participation groups / panels and so on <sup>369-373</sup>	Yes	Few studies, low quality

Focus	Intervention type	Does it work?	Evidence quality
<b>Interventions targeting professionals</b>			
<b>Training</b>	Training in communication skills, cultural competency, patient involvement, support to self-manage and so on <sup>374-381</sup>	Mixed	Many studies, medium quality
	Patient involvement in training clinicians <sup>382</sup>	No	Few studies, low quality
<b>Increasing staff capacity</b>	New staff roles, eg triage nurses <sup>383,384</sup>	Yes	Few studies, low quality
<b>Interventions targeting practices / systems</b>			
<b>Joint working</b>	Integrated working (eg clinics run jointly with secondary care; improved referral letters / referral pathways) <sup>385-389</sup>	Mixed	Many studies, low quality
<b>Service provision</b>	Providing a wider range of services in GP practice (such as acupuncture, memory clinics, citizens advice, etc) <sup>390-397</sup>	Yes	Many studies, medium quality
	Interventions to improve equity of provision	Unknown	Few studies
	Point of care testing <sup>398</sup>	Yes	Few studies, low quality
	Reducing immediate ordering of tests / watchful waiting <sup>399,400</sup>	Mixed	Few studies, medium quality
<b>Improvement initiatives</b>	Implementing guidelines <sup>401</sup>	No	Few studies, low quality
	Continuous quality improvement projects, <sup>402</sup> including audit and feedback <sup>403</sup>	Yes	Few studies, medium quality
	Improvement collaboratives <sup>404</sup>	Yes	Few studies, low quality

**Note:** Selected references are cited to signpost to further reading rather than providing a comprehensive list of all studies about each topic.

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# Interventions to improve clinical outcomes in general practice

This section lists the most commonly researched general practice interventions to improve patient clinical outcomes and the extent to which they may be effective.

## Key trends

Table 5 lists the most commonly researched service redesign interventions to improve clinical outcomes in general practice.

The interventions where the majority of research available suggests effectiveness were:

The range of clinical indicators explored varied widely, but many of the studies that demonstrated effectiveness focused on outcomes such as quality of life, mental health or self-reported wellbeing rather than more tangible changes in blood pressure, blood sugar control or symptoms.

## Targeting patients

- Patient education
- Using technology
- Other support tools
- Layperson-led services

## Targeting professionals

- Training in quality improvement
- Interprofessional learning
- Audit and feedback / peer review
- Improvement collaboratives
- Decision support tools
- Nurse-led services
- Health educators
- Joint consultations
- Increased staffing levels

## Targeting practices

- Providing a wider range of services
- Telehealth

**Table 5: Which interventions improve clinical effectiveness in general practice?**

Focus	Intervention type	Does it work?	Evidence quality
<b>Interventions targeting patients</b>			
<b>Self-management support</b>	Health promotion <sup>405–412</sup>	Mixed	Many studies, medium quality
	Health coaching / counselling <sup>413–418</sup>	Mixed	Many studies, medium quality
	Education activities <sup>419–425</sup>	Yes	Many studies, medium quality
	Using technology eg smartphone apps <sup>426,427</sup> or behaviour change computer modules <sup>428–431</sup>	Yes	Medium studies, low quality
	Other support tools <sup>432</sup>	Yes	Few studies, low quality
	Layperson-led support services <sup>433</sup>	Yes	Few studies, low quality
	Using art to improve mental wellbeing <sup>434</sup>	Yes	Few studies, low quality
	Increasing health literacy	Unknown	Few studies, low quality
<b>Screening</b>	Reminders for screening <sup>435</sup>	Mixed	Few studies, low quality
	Call-back centre for screening <sup>436</sup>	Yes	Few studies, low quality
	Proactive screening <sup>437–441</sup>	Mixed	Many studies, medium quality
<b>Continuity</b>	Care from a named professional <sup>442</sup>	No	Few studies, low quality
<b>Targeting</b>	Identifying and targeting people at high risk / case finding <sup>443–453</sup>	Mixed, often yes	Many studies, high quality
	Proactive monitoring and follow-up <sup>454,455</sup>	Mixed	Few studies, low quality

Focus	Intervention type	Does it work?	Evidence quality
<b>Interventions targeting professionals</b>			
<b>Training</b>	Training in specific tools or conditions <sup>456-484</sup>	Mixed, often no	Many studies, medium quality
	Outreach visits <sup>485-490</sup>	Mixed	Medium studies, low quality
	Training in quality improvement <sup>491-494</sup>	Yes	Few studies, low quality
	Interprofessional learning <sup>495-497</sup>	Yes	Few studies, low quality
	Improved registrar training / four years of specialist training	Unknown	Few studies
	Staff appraisal and revalidation <sup>498</sup>	Unknown	Few studies, low quality
<b>Improvement initiatives</b>	Audit and feedback / peer review visits <sup>499-504</sup>	Yes	Many studies, medium quality
	Learning collaboratives / networks / team reflection / communities of practice <sup>505-515</sup>	Yes	Many studies, medium quality
	Decision support tools <sup>516-521</sup>	Yes	Medium studies, low quality
<b>Increasing staff capacity</b>	Nurse-led services <sup>522-524</sup>	Yes	Medium studies, low quality
	Health care assistant services <sup>525</sup>	No	Few studies, low quality
	GPs with special interests <sup>526</sup>	Mixed	Few studies, low quality
	Health educators <sup>527</sup>	Yes	Few studies, low quality
	Joint consultations / follow-ups with both GPs and nurses <sup>528</sup>	Yes	Few studies, low quality
	Increasing staffing levels <sup>529</sup>	Yes	Few studies, low quality

Focus	Intervention type	Does it work?	Evidence quality
<b>Interventions targeting practices / systems</b>			
<b>Service provision</b>	Providing wider range of services, such as acupuncture <sup>530-532</sup>	Yes	Few studies, medium quality
	Improvements to referral letters <sup>533</sup>	Unknown	Few studies, low quality
	Direct access to investigations and community services	Unknown	Few studies, low quality
<b>Improvement initiatives</b>	Clinical audit and feedback <sup>534-540</sup>	Mixed, often yes	Many studies, medium quality
	Implementing guidelines and protocols <sup>541-545</sup>	Mixed, often no	Medium studies, medium quality
	Quality improvement facilitation and projects <sup>546-549</sup>	Mixed	Few studies, low quality
	Reminder systems (external organisations reminding practices about specific monitoring or processes of care) <sup>550,551</sup>	No	Few studies, low quality
	Practice accreditation / awards <sup>552</sup>	Unknown	Few studies
<b>Tools</b>	IT systems for sharing information within and across organisations <sup>553-558</sup>	Mixed	Medium studies, low quality
	Telehealth <sup>559</sup>	Yes	Few studies, low quality
<b>Structure and finance</b>	Pay for performance systems / financial incentives <sup>560-579</sup>	Mixed, often no	Many studies, medium quality
	Practice organisation (eg practice size, contractual model) <sup>580,581</sup>	Unknown	Few studies, most of low quality
	Multidisciplinary or multi-sectorial care or integration <sup>582-592</sup>	Mixed, often yes	Many studies, medium quality

**Note:** Selected references are cited to signpost to further reading rather than providing a comprehensive list of all studies about each topic.

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# Interventions to improve patient safety in general practice

This section lists the most commonly researched interventions to improve patient safety in general practice and the extent to which they may be effective.

## Key trends

Table 6 lists the most commonly researched interventions to improve patient safety in general practice.

Interventions which sought to increase rates of diagnosis are included under the section about clinical outcomes and are not replicated here.

Importantly, most of the studies that demonstrated effectiveness focused on outcomes such as improved knowledge or behaviour amongst clinicians rather than reduced harm or mortality for patients. In other words, there was a focus on processes rather than adverse events or harm.

The interventions where the majority of available evidence suggested effectiveness were:

## Targeting patients

- Patient education

## Targeting professionals

- Extra training for trainee doctors
- Pharmacist-led education
- Prescribing outreach visits
- Improvement collaboratives
- Peer review and feedback

## Targeting practices

- Pharmacist services in general practice
- Guideline implementation
- Clinical audit
- Significant event analysis
- Quality improvement projects
- Electronic medical records
- Electronic referral systems
- Data collection and error reporting



**Table 6: Which interventions improve patient safety in general practice?**

Focus	Intervention type	Does it work?	Evidence quality
<b>Interventions targeting patients</b>			
<b>Education</b>	Falls prevention education <sup>593</sup>	Yes	Few studies, low quality
<b>Medication initiatives</b>	Automated drug dispensing <sup>594</sup>	Unknown	Few studies, low quality
	Medication reviews <sup>595</sup>	Unknown	Few studies, low quality
<b>Interventions targeting professionals</b>			
<b>Training</b>	Training clinicians in clinical topics and methods such as root cause analysis (using workshops, educational materials and mixed method approaches) <sup>596-599</sup>	Mixed	Medium studies, low quality
	Providing more experience in out-of-hours care to trainee doctors <sup>600</sup>	Yes	Few studies, low quality
	Increased education for trainee doctors in safety issues <sup>601,602</sup>	Yes	Few studies, low quality
<b>Prescribing</b>	Feedback about prescribing <sup>603,604</sup>	Yes	Few studies, low quality
	Pharmacist-led educational interventions <sup>605</sup>	Yes	Few studies, low quality
	Outreach educational visits about prescribing <sup>606,607</sup>	Yes	Medium studies, low quality
	Considering macro issues and context when prescribing <sup>608,609</sup>	Yes	Few studies, low quality
<b>Improvement initiatives</b>	Learning collaboratives <sup>610</sup>	Yes	Few studies, medium quality
	Peer review / observation and feedback <sup>611-613</sup>	Yes	Few studies, medium quality

Focus	Intervention type	Does it work?	Evidence quality
<b>Interventions targeting practices / systems</b>			
<b>Service provision</b>	Pharmacist services offered in general practice <sup>614</sup>	Yes	Medium studies, medium quality
<b>Improvement initiatives</b>	Implementing guidelines <sup>615</sup>	Yes	Few studies, low quality
	Audit and feedback <sup>616-621</sup>	Yes	Many studies, medium quality
	Significant event analysis <sup>622-625</sup>	Yes	Medium studies, low quality
	Patient safety measurement tools (eg Manchester Patient Safety Framework (MaPSaF), trigger tools) <sup>626-628</sup>	Mixed	Few studies, low quality
	Quality improvement projects / plan-do-study-act (PDSA) cycles <sup>629-631</sup>	Yes	Few studies, low quality
<b>IT tools</b>	Electronic medical records <sup>632-634</sup>	Yes	Few studies, low quality
	Computerised provider order entry <sup>635</sup>	No	Few studies, low quality
	Computer reminders <sup>636,637</sup>	Mixed	Few studies, low quality
	IT-aided diagnostics and decision tools <sup>638-640</sup>	Unknown	Few studies, low quality
	Electronic referral systems <sup>641</sup>	Yes	Few studies, low quality
	Improving data collection and error reporting <sup>642-644</sup>	Yes	Few studies, low quality

**Note:** Selected references are cited to signpost to further reading rather than providing a comprehensive list of all studies about each topic.

# Things to consider

This section summarises the interventions that have been found to be most effective overall to improve quality in general practice and highlights some issues to consider when planning next steps.

## Effective interventions

Most patient contacts within the NHS occur in general practice. However, fewer initiatives to measure and improve quality have focused on general practice compared to the acute sector.<sup>645</sup> This evidence scan adds to current knowledge by drawing together high-level themes about which interventions to improve patient experience, clinical outcomes and safety have been most commonly researched.

The interventions vary widely in their target audience, approach and effectiveness, but it is possible to highlight the interventions which have been found to be most effective across these domains (see Table 7).

However, just because an intervention is not listed in this table does not mean that it does not have value. Instead, there may be little research about the initiative, particularly in the case of structural or policy changes or ways of funding or running general practice organisations. Even where research exists, the findings for some interventions may be very mixed due to being implemented in widely differing geographic and political realms, with different levels of support.

**Table 7: Effective interventions for improving quality in general practice**

Interventions targeting...	Effective interventions	
<b>Patients</b>	<ul style="list-style-type: none"> <li>– Improving access</li> <li>– Increased appointment length</li> <li>– Continuity of care</li> <li>– Person-centred consultations</li> <li>– Patient access to records</li> </ul>	<ul style="list-style-type: none"> <li>– Gaining feedback from patients</li> <li>– Patient education</li> <li>– Using technology</li> <li>– Other support tools</li> <li>– Layperson-led services</li> </ul>
<b>Professionals</b>	<ul style="list-style-type: none"> <li>– Training in quality improvement</li> <li>– Interprofessional learning</li> <li>– Audit and feedback / peer review</li> <li>– Prescribing outreach visits</li> <li>– Improvement collaboratives</li> <li>– Extra training for trainee doctors</li> </ul>	<ul style="list-style-type: none"> <li>– Pharmacist-led education</li> <li>– Decision support tools</li> <li>– Nurse-led services</li> <li>– Health educators</li> <li>– Joint consultations</li> <li>– Increased staffing levels</li> </ul>
<b>Practices or systems</b>	<ul style="list-style-type: none"> <li>– Providing a wider range of services</li> <li>– Point of care testing</li> <li>– Quality improvement projects</li> <li>– Telehealth</li> <li>– Pharmacist services in general practice</li> <li>– Guideline implementation</li> </ul>	<ul style="list-style-type: none"> <li>– Clinical audit</li> <li>– Significant event analysis</li> <li>– Electronic medical records</li> <li>– Electronic referral systems</li> <li>– Improving data collection and error reporting</li> </ul>

## Success factors

The interventions that have the largest evidence base have a number of things in common. This suggests some key lessons for success in future initiatives to improve the quality of general practice:

- Often, effective interventions are implemented as part of a **suite of changes** rather than as a standalone intervention, perhaps over a long period of time.<sup>646,647</sup> Most of the studies included in the scan focused on interventions tested as standalone initiatives, but there was some evidence that broader changes co-ordinated as part of wider service redesign were most effective.<sup>648,649</sup> There is not enough evidence to draw conclusions about how many interventions should be combined or the most effective combinations, but initiatives simultaneously targeted at the levels of patients, professionals and practices (or at least two of these levels) have been found to work well.<sup>650,651</sup>
- Many of the interventions are associated with short-term change, but more sustained improvement is less common, especially after support and extra resources are withdrawn.<sup>652</sup> To effectively improve the quality of general practice, **continuous improvement approaches** may be needed.<sup>653–656</sup> This could be supported by specific training for general practice teams in quality improvement, rather than assuming that professionals automatically know how to do this.<sup>657–662</sup>
- The **way in which change is implemented** may be as important or more important than the specific intervention used. For example, studies that found change often used approaches that used a systematic process for improvement, involved the wider team, identified motivators to engage people (internal and external incentives) and dedicated appropriate time and resources to development.<sup>663–665</sup> Ensuring that team members are engaged and help to shape any potential changes can improve both buy-in and outcomes.<sup>666–668</sup>
- **Improvement takes time.** Although some of the studies demonstrated short-term gains, the most significant and sustainable changes are likely to take time to embed, especially where more complex service redesign and culture change is required.<sup>669–671</sup>
- It can be tempting to focus on enhancing the quality of general practice at the level of individual practices or small groups of practices. However, due to wider systems issues, **larger scale change** may be required. This is not to suggest that individual practices cannot innovate and improve, but rather that having a supportive wider infrastructure may be important for sustainability.
- **Improvement does not take place in a vacuum.** The policy, geographic, socio-demographic and financial contexts in which general practice operates are important.
- It may also be important to consider **what makes general practice unique** and the impacts that this has when seeking to adopt improvement interventions used in other parts of health care. General practice has different models of education, staffing, financing and guidelines, and it cannot be assumed that interventions will readily translate from one sector or country to another.<sup>672</sup>
- The people using services have a key role to play in improving the quality of general practice care. This may be through providing feedback about what is currently working well and not so well; suggesting ideas for change or working in partnership as part of care delivery and service redesign teams. There is an increasing recognition of the **central role of patients** in their own self-management, but it may be equally important to understand the role that service users can play in improvement. This may require a change in traditional roles between the people using services and those planning and providing them.
- UK research suggests that apart from clinical audit and significant event analysis, formal quality improvement methods are not adopted by most general practices. Committed **leadership**, including mid-level operational leaders, may be needed to build a culture of innovation and constant improvement.<sup>673–678</sup>

## Caveats

When interpreting the findings, it is important to bear in mind a number of things.

### 1. Scope

Firstly, the summary we have provided is not exhaustive. Tens of thousands of articles have been published about improving quality in general practice. This summary was prepared within one week and as such presents key themes from readily available published studies.

There are many other descriptions of improving quality in general practice but these descriptions were not eligible for inclusion unless they were based on published empirical research. Grey literature was not included and this means that some examples have been omitted. This may mean that more novel approaches are not featured.

There are also likely to be many improvement initiatives running in general practice that are not mentioned because there is little research published about them. This is not to suggest those interventions are not useful, just that there is little published research available about them.

### 2. Level of detail

Another important point is that there are relatively few studies providing detail about how the interventions work in practice, and each intervention is likely to vary widely. An 'IT system' intervention for instance, is likely to be quite different from one study to another. This means it is essential to be cautious when interpreting the tables listing the relative effectiveness of different interventions because even within one type of intervention we may be 'comparing apples with oranges.'

Many factors may impact on the relative effectiveness of interventions. For instance, health ecosystems, local and national policies and drivers, incentive schemes, staffing levels and priorities and many other meso and macro-level factors will likely influence what and how interventions are applied in general practice. The evidence scan does not explore these potential sources of variation or look in any depth into the factors that may help or hinder implementation, but such factors may explain why some interventions are more successful and sustainable than others.

### 3. Applicability to the UK

There are also some caveats about the quality of studies, which is important when considering their utility for planning in the UK. Many of the studies were conducted in single sites, often outside the UK, and used widely varying research designs. We did not seek to appraise the quality of the studies or to weight the evidence contained within them.

We drew together evidence from different countries, yet the policy ecosystem in these health systems varies a great deal, as does the definition and role of general practice. It is therefore not surprising that many improvement interventions have mixed findings when such disparate evidence is combined.

We did not focus on the extent to which general practice in the UK is currently applying the interventions, so it may be that none of the interventions are particularly novel in a UK context.

While this summary has focused on what has been researched to date in general practice, there may be scope to learn from other sectors within and outside health care that have improved their safety and performance.

It is useful to keep these points in mind when thinking about implications for practice. All of these issues suggest that there is no simple answer to the question 'Which interventions improve quality in general practice?' However, this summary highlights that there is a huge number of relevant studies available and suggests that there is much to learn from the existing knowledge base. There is great scope to delve deeper into factors that help or hinder quality improvement in general practice and this could help to provide a checklist or toolkit of things to consider in future planning, regardless of which specific interventions are being implemented.

## Conclusion

To conclude, this evidence scan has drawn together key material about how quality is defined, what people using services believe comprises quality in general practice and approaches that have been used to improve quality in general practice. Although the research is disparate and does not provide a simple solution to improving quality, it does show that a great deal has been published about quality in general practice and that there is much scope to use the existing knowledge base to promote, inspire and engage with improvement.

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