



PEARL

Experiences and opinions of general practitioners with patient online record access

Blease, Charlotte R.; Kharko, Anna; Dong, Zhiyong; Jones, Ray B.; Davidge, Gail; Hagglund, Maria; Turner, Andrew; DesRoches, Catherine; McMillan, Brian

Published in:
BMJ Open

DOI:
[10.1136/bmjopen-2023-078158](https://doi.org/10.1136/bmjopen-2023-078158)

Publication date:
2024

Document version:
Publisher's PDF, also known as Version of record

Link:
[Link to publication in PEARL](#)

Citation for published version (APA):

Blease, C. R., Kharko, A., Dong, Z., Jones, R. B., Davidge, G., Hagglund, M., Turner, A., DesRoches, C., & McMillan, B. (2024). Experiences and opinions of general practitioners with patient online record access: an online survey in England. *BMJ Open*, *14*(1), Article e078158. <https://doi.org/10.1136/bmjopen-2023-078158>

All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Wherever possible please cite the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.

2024-01

Experiences and opinions of general practitioners with patient online record access: an online survey in England

Blease, CR

<https://pearl.plymouth.ac.uk/handle/10026.1/22391>


10.1136/bmjopen-2023-078158

BMJ Open

BMJ

All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Please cite only the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.

BMJ Open Experiences and opinions of general practitioners with patient online record access: an online survey in England

Charlotte R Blease ^{1,2} Anna Kharko ^{3,4} Zhiyong Dong,² Ray B Jones ³,
Gail Davidge,⁵ Maria Hagglund,^{4,6} Andrew Turner ⁷, Catherine DesRoches,²
Brian McMillan ⁵

To cite: Blease CR, Kharko A, Dong Z, *et al*. Experiences and opinions of general practitioners with patient online record access: an online survey in England. *BMJ Open* 2024;**14**:e078158. doi:10.1136/bmjopen-2023-078158

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2023-078158>).

Received 26 July 2023

Accepted 22 December 2023



© Author(s) (or their employer(s)) 2024. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹Uppsala Universitet, Uppsala, Sweden

²Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts, USA

³Faculty of Health, University of Plymouth, Plymouth, UK

⁴Department of Women and Children's Health, Uppsala Universitet, Uppsala, Sweden

⁵Centre for Primary Care and Health Services Research, The University of Manchester, Manchester, UK

⁶Medtech Science & Innovation Centre, Uppsala University Hospital, Uppsala, Sweden

⁷University of Bristol, Bristol, UK

Correspondence to

Dr Charlotte R Blease;
charlotte.blease@uu.se

ABSTRACT

Objective To describe the experiences and opinions of general practitioners (GPs) in England regarding patients having access to their full online GP health records.

Design Convenience sample, online survey.

Participants 400 registered GPs in England.

Main outcome measures Investigators measured GPs' experiences and opinions about online record access (ORA), including patient care and their practice.

Results A total of 400 GPs from all regions of England responded. A minority (130, 33%) believed ORA was a good idea. Most GPs believed a majority of patients would worry more (364, 91%) or find their GP records more confusing than helpful (338, 85%). Most GPs believed a majority of patients would find significant errors in their records (240, 60%), would better remember their care plan (280, 70%) and feel more in control of their care (243, 60%). The majority believed they will/already spend more time addressing patients' questions outside of consultations (357, 89%), that consultations will/already take significantly longer (322, 81%) and that they will be/already are less candid in their documentation (289, 72%) after ORA. Nearly two-thirds of GPs believed ORA would increase their litigation (246, 62%).

Conclusions Similar to clinicians in other countries, GPs in our sample were sceptical of ORA, believing patients would worry more and find their records more confusing than helpful. Most GPs also believed the practice would exacerbate work burdens. However, the majority of GPs in this survey also agreed there were multiple benefits to patients having online access to their primary care health records. The findings of this survey also contribute to a growing body of contrastive research from countries where ORA is advanced, demonstrating clinicians are sceptical while studies indicate patients appear to derive multiple benefits.

INTRODUCTION

In 2021, the National Health Service England (NHSE) announced plans that patients aged 16 and over would have prospective access to their primary care records online, by default.¹ Although these plans have not yet been fully implemented, by March 2023, one in five English primary care practices switched on this functionality, enabling—at

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This is the largest survey conducted in the UK on general practitioners' (GPs) views about patient access to their online health records.
- ⇒ However, the use of a convenience sample means that it is not possible to infer that our sample was representative of the opinions of GPs in England.
- ⇒ Although we strove to stratify the sample as far as possible according to geographical location, gender and age, our respondents were restricted to those GPs who use Doctors.net.uk and who used the service during the administration of the survey.
- ⇒ Decisions about whether to complete the survey may have been influenced by responder biases such as acquiescence biases or prior enthusiasm or scepticism about the topic, which might have affected the findings.

least in theory—6.5 million patients to see new information added to their record using online services such as the National Health Service (NHS) app.² Access includes test and lab results, secondary care letters, lists of medications and the free text written by general practitioners (GPs) during consultations. Since April 2019, the GP contract in England has already committed practices to offer new patients full prospective online access to their records: however, this was widely interpreted to mean access would be granted only after a patient request to GPs.³ The new NHS England announcement specified that access would be enabled automatically and by default, that is, without requiring patients to submit a request for access. On 6 March 2023, NHSE announced a new GP contract that will impose online record access (ORA) by default by October 2023.⁴ Despite this contractual change, in November 2023, a month after access was mandated, one in four general practice surgeries across England still did not offer ORA.⁵



The UK is comprised of publicly funded healthcare systems across each of its four countries: NHSE, NHS Scotland, NHS Wales and Health and Social Care in Northern Ireland. Within the UK, NHSE is the furthest along with respect to implementing ORA. England is not the first or only country striving to implement default patient access to electronic health records. In some countries, such as the Nordic countries and the USA, the practice is advanced.⁶ For example, between 2012 and 2018, all patients in Sweden obtained access to their electronic records.⁷ By 2021 in the USA, 55 million people had already been offered online access to their free text entries written by clinicians, a practice commonly referred to as ‘open notes’. Starting in April 2021, new US federal rules mandated that, with few permitted exemptions, all patients be offered rapid access to their full electronic record, including open notes, without charge.^{8 9} This more comprehensive form of access to the entire record is referred to as ORA. Although patients often welcome transparency, studies show many doctors, especially those without experience with the practice, express scepticism about patient access, including open notes.^{10–14}

There is limited knowledge about the experiences and opinions of doctors in the UK regarding patients having access to their health records online. Recently, researchers have begun to explore UK doctors’ views. For example, in 2022, Turner *et al* conducted a qualitative study including 16 general practice staff in England who had experience with the practice. Participants expressed concerns that access negatively affected the quality of record entries, patient safety and workload.¹⁵ Another study by Louch *et al* explored the views of 19 primary care staff involved in a variety of clinical and non-clinical roles and found respondents to be generally supportive of patient ORA but were uncertain about the impact on patient–clinician relationships and patient safeguarding.¹⁶ To date, these findings echo multiple studies published in Sweden and the USA, where clinicians also express worries related to the potential harms but also the benefits of patient ORA.^{10–14} Moreover, research in England exploring patients’ experiences echoes findings in other countries,¹⁷ showing that patients who access their records derive many benefits, including feeling more in control of their care.^{18 19}

Although a growing number of small qualitative studies have explored the views of primary care staff in England about ORA research in this area, it is limited. In this study, our aim was to address this gap by sampling a larger number of registered GPs in England to explore their general experiences and opinions about the potential impact of ORA on both patients and GPs.

METHODS

Study population

Participants in this survey were sampled from GPs in England registered with the clinician marketing service Doctors.net.uk. This is the largest professional network and online information service for UK doctors, with

248 326 doctors out of a total of 355 250 UK doctors (70%) registered with it. Approximately 21 250 GPs out of a total of 36 752 registered and working in the UK (58%) are active in the community in any 90-day period. Ethical approval for the study was obtained from Beth Israel Deaconess Medical Center, Harvard Medical School (Protocol # 2021P000626). At Doctors.net.uk, a percentage of GPs active within the community consent to being sent survey invitations via email; this percentage differs according to those who are active in any given period. Therefore, depending on how GPs consented to receive survey invitations, our study was advertised via email or displayed on the Doctors.net.uk home pages of a sample of GPs between 10 March 2022 and 31 March 2022. We asked Doctors.net.uk to invite a random sample stratified by gender and age using demographic information about currently registered GPs working in England provided by the General Medical Council (GMC) in the GMC Data Explorer (<https://data.gmc-uk.org/gmcdata/home/#/>). We have obtained samples from Doctors.net.uk in previous studies using similar methods.²⁰ Doctors.net.uk invited 720 GPs by email and also by invitations embedded in their Doctors.net.uk homepages; a further 2072 GPs were invited to participate only via links on their homepages.

All invited GPs were assured that their identities would not be disclosed to investigators and that participation was voluntary. All participants gave informed consent before taking part in the survey. A small incentive worth £7.50 (\$8.80, €8.83) in exchangeable shopping vouchers was provided on completion, and participants were required to respond to every closed-ended question to complete the survey. Further questions were embedded within the survey to determine whether respondents were currently practising as GPs in England. Data collection terminated when we received 400 completed survey responses. This convenience sample number was predetermined and limited to funding restrictions.

Survey instrument

The study team adapted generic survey instruments that were originally developed to explore US physicians’ views and experiences with ORA.^{11 12 21} We modified and shortened the survey in consultation with GPs in England and piloted the survey with GP colleagues in the UK (n=5) to ensure face validity. The survey, which encompassed 34 items, was timed to take around 5 min to complete.

The survey was divided into two main sections (see online supplemental file 1). Part 1 examined the impact of ORA on patients and opened with the statement, ‘The following questions ask for your understanding, experiences and opinions about offering patients full online access to their GP health records, including the potential impact on patients’ care. By “full online access” we mean all information on the electronic record from the date the patient requested access that is visible to GPs, including the patient’s allergies, immunisations, letters, medication lists, test/lab results, problem lists and the

free text comments written by clinicians'. Next, using seven scalar options (including 'none'), participants were requested to estimate what percentage of their patients were currently offered full online access to their records. Participants were also asked, 'If your patients were/are offered access to your free text comments online, how many patients do you estimate would read them?' GPs were invited to respond using six scalar percentage options. A third set of questions stated, 'We are interested in your opinions about the effect on patients of reading GP health records online, even if none of your patients have requested access. Please indicate how strongly you agree or disagree with the statements below'. GPs were invited to offer their level of agreement with 10 items about the impact on patients accessing their online records. Employing four-level Likert items, we included the following response options: 'disagree', 'somewhat disagree', 'somewhat agree', and 'agree'. All closed-ended questions included 'don't know' options.

Part 2 of the survey requested participants to 'please think about how your practice will be affected or already is affected if your patients have full online access to their GP health record'. Employing the same four-level Likert scale, participants were requested to offer their opinions about nine survey items on the impact on GPs and their practices of patient access. This was followed by a question requesting participants to rate the legal risk of actions being taken against them as a result of ORA. Participants were offered three options: 'decrease my risk of having legal action taken against me', 'increase my risk of having legal action taken against me', or 'neither decrease nor increase my risk'. All of the above closed-ended questions also included 'don't know' options. A final question asked, 'Are you aware that, since April 2019, the GP contract in England has required GP surgeries to offer patients full access to all prospective data on their GP health record?' Participants were requested to answer this question using only binary 'yes' or 'no' options.

Part 1 and part 2 of the questionnaires also included four open-comment questions. Responses to these questions have now been analysed and published.²²

The survey closed by requesting demographic information, including participant gender and age. Participants were also asked whether they were willing to be contacted to participate in a follow-up online survey in 2023.

Data management and analysis

We used the CHERRIES checklist for survey administration and reporting (see online supplemental file 2).²³ We used descriptive statistics to examine physicians' characteristics and experiences with their opinions about ORA. In our analysis, responses were collapsed into positive (for 'somewhat agree' or 'agree' responses) versus negative (for 'somewhat disagree' or 'disagree') opinions. The χ^2 test of independence and Fisher's exact test were performed to check the associations between physicians' experiences and opinions about the impact of ORA with age, gender and working hours per week. The latter

analysis was included as previous surveys in the USA suggest clinicians fear ORA will exacerbate already heavy workloads, contributing to greater time in writing documentation^{11 12 14}; we, therefore, surmised that GPs who worked longer hours would be more sceptical about the practice. We completed all analyses using SAS software V.9.4 (SAS Institute, Cary, North Carolina, USA). Figures were created with Datawrapper.

The survey platform, www.doctors.net.uk, operates on a secure platform that ensures that personal data is numerically stored and fully anonymous (ie, not linked to the participants' responses). All personal data, such as email addresses, were removed from respondents' IDs before the transfer of the data to the research team. www.doctors.net.uk meets the requirements of the EU Law on General Data Protection Regulation.

Patient and public involvement

None.

RESULTS

Respondent characteristics

Of the 720 who received email and homepage invitations, 601 opened the email invite and 102 clicked on the survey link, with 63 completing the survey (response rate: 63/720, 9%); the remainder (337) accessed and completed the survey via their homepage (337/2072, 16%). Of the 400 GPs who responded, more were male (57%), and 85% were aged 40 or older. Respondents were from all regions of England. Most of our respondents worked between 21 and 40 hours per week (58%, 230/400) (see table 1). Raw data are publicly available.²⁴

Our participants varied from those registered with the GMC in March 2022. There were more male GPs in our sample than those in the GMC registry (57% vs 45%). Our respondents were also older than those in the registry—85% versus 75% aged 40 and above. Our sample was representative of the seven English regions. Since the GMC does not collect the number of hours worked per week, it was not possible to compare participants on this metric.

Experiences and opinions about the impact on patients

Although our survey was not able to determine levels of patient access, around a quarter of surveyed GPs (28%, 111/400) estimated that 51%–100% of their patients currently had access to their full online health records. A further 12% (50/400) reported 'none' with 21% (83/400) reporting they 'don't know' what percentage were offered online access (figure 1). Six in 10 participants (60%, 240/400) believed that if patients were offered access to their free text entries, only 50% or fewer would read them (see figure 1).

Approximately 9 in 10 participants (91%, 364/400) somewhat agreed or agreed that after obtaining full online access, a majority of patients would 'worry more' with 85% (338/400) believing most patients would 'find

Table 1 Characteristics of the respondents and their practices

Characteristics	Sample (n=400)	General Medical Council register (n=59 001)	χ^2
Gender*, n (%)	–		26.39
Female	161 (40.25%)	32 171 (54.53%)	
Male	227 (56.75%)	26 830 (45.47%)	
Prefer not to disclose	12 (3%)	–	
Age*, n (%)			70.91
25–29	–	77 (0.13%)	
30–39	61 (15.25%)	14 558 (24.67%)	
40–49	196 (49%)	18 518 (31.39%)	
50–59	99 (24.75%)	13 816 (23.42%)	
60+	44 (11%)	12 032 (20.39%)	
Hours worked per week, m (SD)			
0–20, n (%)	65 (16.25%)	–	
21–40	230 (57.5%)	–	
41+	105 (26.25%)	–	
Location of practice, n (%)			3.16
London	64 (16%)	10 150 (17.2%)	
South West	45 (11.25%)	8091 (13.71%)	
South East	64 (16%)	9305 (15.77%)	
East and West Midlands	77 (19.25%)	10 274 (17.41%)	
East of England	40 (10%)	5588 (9.47%)	
North East and Yorkshire and Humber	58 (14.5%)	8259 (14%)	
North West	52 (13%)	7335 (12.43%)	

*Statistical significance was found for age (df=2) and gender (df=1) by comparing the calculated χ^2 values with critical values at the significant level of 0.05.

their GP health records more confusing than helpful' (see table 2). Similarly, 95% (381/400) somewhat agreed or agreed that after full online access, a majority of patients would 'contact me or my practice with questions about their health record'.

In contrast, 70% (280/400) somewhat agreed or agreed that a majority of patients would 'better remember the plan for their care', with 61% (243/400) believing patients would 'feel more in control of their healthcare'.

Similarly, 60% (240/400) somewhat agreed or agreed that a majority of patients would 'find significant errors in their GP record'. Around half of those surveyed (52%, 209/400) somewhat agreed or agreed that a majority of patients would 'better understand their health and medical conditions' after accessing their online records or 'be more likely to take their medications as prescribed' (50%, 199/400). A similar proportion (48%, 191/400) somewhat agreed or agreed that after obtaining

Estimated percentage:

None
 1 - 10%
 11 - 25%
 26 - 50%
 51 - 75%
 76 - 100%
 Don't know

What percentage of your patients do you estimate are offered full online access to their health records as defined above?



If your patients were/are offered access to your free text comments online, how many patients do you estimate would read them?

**Figure 1** Estimated percentage of patients offered full access to health records and of patients reading them.

Table 2 GPs' experiences and opinions about the impact of online record access on patients

Statement	Opinion, n (%)				
	Disagree	Somewhat disagree	Somewhat agree	Agree	Don't know
Contact me or my practice with questions about their health record	2 (.5%)	7 (1.75%)	46 (11.5%)	335 (83.75%)	10 (2.5%)
Worry more	5 (1.25%)	21 (5.25%)	101 (25.25%)	263 (65.75%)	10 (2.5%)
Find their GP health records more confusing than helpful	10 (2.5%)	22 (5.5%)	118 (29.5%)	220 (55%)	30 (7.5%)
Find significant errors in their GP record	20 (5%)	91 (22.75%)	125 (31.25%)	115 (28.75%)	49 (12.25%)
Better remember the plan for their care	32 (8%)	61 (15.25%)	185 (46.25%)	95 (23.75%)	27 (6.75%)
Feel more in control of their healthcare	32 (8%)	85 (21.25%)	169 (42.25%)	74 (18.5%)	40 (10%)
Better understand their health and medical conditions	68 (17%)	92 (23%)	145 (36.25%)	64 (16%)	31 (7.75%)
Be more likely to take medications as prescribed	41 (10.25%)	97 (24.25%)	144 (36%)	55 (13.75%)	63 (15.75%)
Be better prepared for consultations	49 (12.25%)	120 (30%)	137 (34.25%)	54 (13.5%)	40 (10%)
Trust me more as their GP	62 (15.5%)	122 (30.5%)	98 (24.5%)	33 (8.25%)	85 (21.25%)

GP, general practitioner.

online access, a majority would 'be better prepared for consultations'.

When asked about the influence of access on trust, more than 4 in 10 respondents (46%, 184/400) believed ORA would have a negative impact.

Experiences and opinions about the impact on GPs

More than 8 in 10 participants (85%, 338/400) reported they were 'aware that, since April 2019, the GP contract in England has required GP surgeries to offer patients full online access to all prospective data on their GP health record'. Almost 9 in 10 respondents (89%, 357/400) somewhat agreed or agreed that 'I will/already spend significantly more time addressing patient questions outside of consultations' as a result of patient access to their online health records (see [table 3](#)). Similarly, 81% (322/400) somewhat agreed or agreed that 'my consultations will take/already take significantly longer'. In addition, 72% (289/400) somewhat agreed or agreed that 'I will be/already am less candid in my documentation'. A minority of respondents (18%, 72/400) agreed or somewhat agreed that 'medical care will be/is delivered more efficiently' after patient access to their GP health record. Around two in three respondents (64%, 255/400) disagreed or somewhat disagreed that 'patient satisfaction will improve/has already improved'. Asked whether patient care will be/is safer as a result of patient ORA, 57% (227/400) disagreed or somewhat disagreed; 19% (74/400) responded 'don't know'. In addition, 58% (230/400) somewhat agreed or agreed that 'patients who read their GP record will be/already have been offended'. Nearly two-thirds of respondents (62%, 246/400) believed patient online access would 'increase my risk of having legal action taken against me' (see [figure 2](#)).

Finally, a third of respondents (33%, 130/400) somewhat agreed or agreed that patient access to their online records was a 'good idea'.

DISCUSSION

Summary of major findings

This is the largest survey conducted into the experiences and opinions of GPs in England about patient ORA. Most respondents were aware that the GP contract in England required surgeries to offer patients full online access on request. By March 2022, a quarter of GPs in our study reported enabling ORA for the majority of their patients. Only a third of surveyed GPs believed offering patients access to their online records was a good idea.

The overwhelming majority of surveyed GPs believed patients would worry more after accessing their records, with a similar proportion (85%) believing most would find their records more confusing than helpful. However, our findings also revealed that GPs believed there were benefits to patients from access. The majority of GPs believed access would improve patient recall about their care plan, enhance patients' sense of control over their care and help patients identify significant errors in their records.

Table 3 GPs' experiences and opinions about the impact of patient online health records access on their practice

Statement	Opinion, n (%)				
	Disagree	Somewhat disagree	Somewhat agree	Agree	Don't know
I will/already spend significantly more time addressing patient questions outside of consultations	9 (2.25%)	22 (5.5%)	106 (26.5%)	251 (62.75%)	12 (3%)
My consultations will take/already take significantly longer	18 (4.5%)	44 (11%)	122 (30.5%)	200 (50%)	16 (4%)
I will be/already am less candid in my documentation	33 (8.25%)	57 (14.25%)	94 (23.5%)	195 (48.75%)	21 (5.25%)
Patients who read their GP health record will be/already have been offended	22 (5.5%)	78 (19.5%)	129 (32.25%)	101 (25.25%)	70 (17.5%)
Patient satisfaction will improve/has already improved	109 (27.25%)	146 (36.5%)	58 (14.5%)	17 (4.25%)	70 (17.5%)
Medical care will be/is delivered more efficiently	135 (33.75%)	144 (36%)	50 (12.5%)	22 (5.5%)	49 (12.25%)
In general, full online access to patients' health records is a good idea	139 (34.75%)	95 (23.75%)	94 (23.5%)	36 (9%)	36 (9%)
Patient care will be/is safer	95 (23.75%)	132 (33%)	74 (18.5%)	25 (6.25%)	74 (18.5%)

GP, general practitioner.

In addition, approximately half of those surveyed believed access would help patients better understand their health and medical conditions, better adhere to their medications and be better prepared for consultations.

Despite the experienced and anticipated benefits to patients, GPs are worried about the work burdens of ORA on their practices. More than 9 in 10 surveyed GPs believed patient online access would lead to increased patient contact. Most GPs also believed consultations would/already take longer as a result, with more time spent answering questions outside of consultations. Perhaps as a result, 7 in 10 GPs did not agree access would increase care efficiency. The majority were also sceptical that patient satisfaction or safety would improve as a result of patient access. Finally, more than 6 in 10 GPs believed

the risk of patients taking legal action against them would increase after ORA.

Comparison with other studies

Our survey supports recent qualitative research in England, which shows clinicians express partial ambivalence and scepticism about the impact of ORA on patients.^{25 26} Strikingly similar views have also been reported cross-culturally in countries where access is now more advanced. For example, multiple surveys in the USA and Sweden reveal that a majority of clinicians, especially those with limited experience of the practice, expressed hesitancy or resistance to the practice.^{13 27–29} Relatedly, most respondents reported awareness that the GP contract committed practices to offer patients full

Predicted risk:

Decrease my risk of having legal action taken against me
 Increase my risk of having legal action taken against me
 Neither decrease nor increase my risk
 Don't know

In your opinion, will making patients' GP health record available to patients online...

**Figure 2** Predicted risk of legal action.

online access by request, yet only a minority reported offering most patients ORA. Professional reluctance to raise awareness about access is also found in other countries. For example, in a survey of doctors in the USA, even after opening visit note summaries to patients, 78% (n=620) admitted that they did not encourage patients to read their documentation.³⁰ Indeed, in a recent qualitative study among patients in England, participants reported that online access should be better promoted.¹⁷

Our results also echo studies in other countries, which show doctors anticipate patients will feel more in control of their care and better remember their care plan after accessing their records.^{11–12} Equally, our findings also resonate with research conducted in Sweden and the USA demonstrating most clinicians doubt patients' ability to handle what they read, anticipating patients will worry more and find their records more confusing than helpful.^{11–13} Clinicians' doubts tend to dissipate over time and with experience with ORA.²¹ Notably, to date, studies consistently show the majority of patients who access their records, including those with chronic illnesses, describe multiple benefits, with few reporting feeling 'very confused' or 'more worried' by what they read.^{18–19, 31–35}

Again, like previously published surveys in other countries, most of the English GPs we surveyed worried about access encroaching on their workload.^{25–26} This theme is also predominant in survey findings in other countries. For example, in a recent US study of 116 primary care physicians, 69% anticipated spending significantly more time addressing patients' questions outside of consultations prior to patient access to open notes (ie, free text entries about patient visits); however, after implementation, only 8% reported having to spend more time addressing patients' questions outside consultation hours.²¹ Using objective measures of messaging—such as email volume—in 2012, a US survey by Delbanco *et al* found no significant changes in the 12 months before compared with the 12 months after open notes were implemented.¹¹ In a more recent US survey led by DesRoches, among clinician respondents who had offered online patient access to open notes for at least 1 year, 86% (n=1112) reported that in the previous 12 months, patients contacted them less than monthly or never with questions related to their documentation.³⁰ However, other studies show that when it comes to accessing the full electronic health record, there is potential for increased patient contact. In a systematic review of primary care settings, Mould *et al* found the provision of ORA resulted in a moderate increase in email traffic but no change in telephone contact, with variable changes to face-to-face contact.³⁶ Another recent study in the USA found that, after the implementation of ORA, the number of messages sent by patients within the 6 hours after patients reviewed the results doubled.³⁷

More than half of surveyed GPs in our study believed patient access would negatively affect patient safety, a finding that was particularly noteworthy considering 60% (240/400) of GPs agreed that patients would find

significant errors in their notes. Our respondents' views contrast with multiple studies that suggest open notes might function as a safety mechanism,^{38–40} a conclusion that is supported by systematic reviews and meta-analyses.^{41–42} Studies show that with more eyes on the record, access may help patients and their families avoid delays and missed diagnoses by encouraging prompt follow-up of tests, results and referrals.^{40–43}

GPs' concerns about safety might have been prompted by worries about potential changes to documentation. Akin to recent qualitative studies among primary care staff in England (21) and survey findings from other countries (11, 13 and 26), most GPs (72%, 279/400) in our survey reported they will be/already are less candid in their documentation as a result of patient online access. Such changes may be aimed at preventing patient anxiety, reducing anticipated patient contact and reducing litigation or unintended offence. Nonetheless, after the implementation of ORA, whether changes to documentation do, in fact, diminish the clinical value of documentation is unclear.⁴⁴ In the survey by DesRoches, 77% (n=188) of primary care physicians perceived no change in the value of their notes for other clinicians; however, 26% (n=63) reported changing how they wrote differential diagnoses.³⁰ In addition, and although not determined in this survey, third-party access or how to protect vulnerable patients might also have been a safety concern for our respondents. Recent qualitative studies in England reported that primary care staff identified patient safeguarding, including for at-risk adults, such as those in coercive relationships, or among vulnerable young adults, as a leading concern.^{25–26}

Finally, supporting recent qualitative research in England, a majority of GPs worried about elevated risks of litigation following the ORA.²⁵ In the USA, to date, we are aware of no medical malpractice cases arising as a result of patient access to their online records. If clinicians make changes that reduce the quality of documentation and this later leads to errors, the risks of litigation might increase. However, if patient access helps increase patient safety by reducing diagnostic delays or medical errors, this could reduce the risk of malpractice since these are the leading causes of claims.^{45–48}

In summary, our survey was in line with recurrent themes in the growing body of international research into clinicians' views about ORA. However, important contextual factors, including country-specific factors, might have influenced our results. Compared with previously published clinician surveys, the present survey was administered in March 2022, during the COVID-19 pandemic and GP burnout may have contributed to increased cynicism. In the UK, successive governments have advocated a 'digital first' model of primary care with ambitious short-term goals for transforming access to health advice, support and treatment using digital online tools.^{49–50} These policies, accelerated by the pandemic, may have exacerbated GPs' concerns about work burdens, the rapid adoption of digital tools without adequate training,



resources for implementation or consideration of the possible negative consequences of these policies.²⁵

Implications of the findings

Our findings suggest that GPs in England share many similar concerns with their counterparts in other countries where online access to records is now well established. Although few studies have explored patients' experiences with online access in England,⁵¹ we cannot help but observe a trend towards contrastive views between clinicians and patients. Combined, these findings suggest patients in England may be vulnerable to negative stereotyping with regard to their capacity to understand and emotionally cope with reading their own health information.²⁹ Medical ethicists have argued that unfair stereotyping may be used to justify exclusions that further impede patients' ability to engage in their own care, forfeiting important opportunities to benefit from accessing their documentation.^{29 52–54} The current study underscores the importance of exploring patients' experiences in England with ORA.

Notwithstanding, GPs in our survey did perceive many benefits to patients. This is an important finding, given a growing body of research in other countries that shows patients feel more engaged, more in control of their care and better understand their care plan as a result of access to their clinical documentation.^{18 19 31 34 35} Moreover, in these surveys, as a result of ORA, many patients report greater trust in their clinicians,^{43 55} a greater sense of teamwork⁴³ and doing a better job taking their medications.³⁴

However, as with surveys in other countries, many GPs believed access would increase work burdens and contact from the patients. Again, studies in other countries suggest that, with practice, these fears may not materialise. Our study highlights the importance of supporting GPs and their staff to become better prepared for talking about and writing documentation that patients will now read.⁵⁶ Equally, patients will require guidance to optimise the benefits and minimise risks. Guidance materials should be aimed at supporting GPs and patients to better partner with each other and to promote engagement with care plans while raising awareness about GPs' work burdens.

Strengths and limitations

This is the largest survey conducted in the UK on doctors' views about patient access to their online health records. Given the ongoing changes to default online patient record access, the survey is timely. However, the study has several limitations relating to the use of a non-probability sample and a limited sample size. Although we strove to stratify the sample as far as possible according to geographical location, gender and age, our respondents were restricted to those GPs who use Doctors.net.uk and who used the service during the administration of the survey. In addition, we did not collect data on whether GPs worked part time or full time or whether respondents

were salaried, partners or locums in their practices; conceivably, work burdens might have affected answers. It is therefore not possible to infer that our sample was representative of the opinions of GPs in England. The decision to complete the survey may have been influenced by responder biases such as acquiescence biases or prior enthusiasm or scepticism about the topic, which might have affected the findings. We were also not able to determine the level of patient access to ORA, including that estimated by GPs, using this survey.

We recommend future studies conduct more in-depth analyses of GPs' ongoing experiences and opinions about ORA. To that end, a follow-up panel survey among participants who agreed to be contacted is planned. Few studies in England have explored patients' experiences with accessing their online health records. Whether patients in England also accrue the same benefits as patients in other countries remains to be seen. Conceivably, there may be differences in documentation practices or in health literacy between countries, and we strongly recommend survey research in England to explore the views of patients and their families with this practice innovation. As with other countries, further studies are also needed to explore objective changes to documentation as a result of ORA^{44 57} and to investigate the potential impact on workflow among clinicians following patient access.³⁷

CONCLUSIONS

Most GPs in this England-wide survey agreed there were multiple benefits to patients from accessing their online health records. Nonetheless, like clinicians in other countries, a majority of surveyed GPs believed patients would worry more and find their records more confusing than helpful, with increased contact with patients and added work burdens. We emphasise that studies of patients' experiences in diverse countries question the robustness of this perspective; however, it will be important for ongoing studies in the UK to evaluate and continue to assess both GPs' and patients' experiences with access. Notwithstanding, in England, patients' online access to their GPs' records is here to stay. In the coming months, it will be crucial for GPs, primary care staff and patients to adapt to this radical change in practice.⁵⁶

Twitter Charlotte R Blease @crblease, Anna Kharko @AnnaKharko, Ray B Jones @rjonesplymouth and Brian McMillan @brwmcmillan

Contributors CRB: Guarantor; conceptualisation, investigation, methodology, project administration, writing the original draft, writing the review and editing, and is the guarantor and corresponding author; AK: investigation, methodology, writing the review and editing; ZD: investigation; RBJ: conceptualisation, writing the review and editing; GD: writing the review and editing; AT: writing the review and editing; MH: writing the review and editing; CDR: methodology, writing the review and editing; BM: conceptualisation, methodology, writing the review and editing.

Funding This survey was made possible by the funding 'Beyond Implementation of eHealth' (#2020-01229) awarded by FORTE, the Swedish Research Council for Health, Working Life and Welfare (CRB, MH, CDR). Further support comes from a Keane Scholar Award (#N/A, CRB); BM and GD are funded by the National Institute

for Health and Care Research (NIHR Award ref: NIHR300887). The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care. AT's time is supported by the National Institute for Health Research (NIHR Award ref N/A) Applied Research Collaboration (ARC West) at University Hospitals Bristol NHS Foundation Trust. The funders had no role in study design, data collection and analysis, the decision to publish or preparation of the manuscript.

Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants and ethical approval was obtained from Beth Israel Deaconess Medical Center, Harvard Medical School (Protocol # 2021P000626). Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available in a public, open access repository.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Charlotte R Blease <http://orcid.org/0000-0002-0205-1165>

Anna Kharko <http://orcid.org/0000-0003-0908-6173>

Ray B Jones <http://orcid.org/0000-0002-2963-3421>

Andrew Turner <http://orcid.org/0000-0002-7121-3121>

Brian McMillan <http://orcid.org/0000-0002-0683-3877>

REFERENCES

- NHS England. Offering patients access to their future health information. 2022. Available: <https://www.england.nhs.uk/publication/offering-patients-access-to-their-future-health-information/>
- National Information. Personalised health and care 2020 using data and technology to transform outcomes for patients and citizens. UK Government 2014. Available: <https://www.gov.uk/government/publications/personalised-health-and-care-2020>
- British Medical Association & NHS. Online access to Digital GP records 2019/20. 11 Nov 2019 [cited 14 Feb 2022]. Available: <https://www.england.nhs.uk/wp-content/uploads/2019/12/bma-nhse-joint-statement-prospective-record-access-v1.1.pdf>
- NHS England. Changes to the GP Contract in 2023/24. In: NHS England [Internet]. 6 Mar 2023 [cited 20 Mar 2023]. Available: <https://www.england.nhs.uk/long-read/changes-to-the-gp-contract-in-2023-24/>
- Trendall S. One in four GPs yet to provide patients with online access to records. In: Public Technology.net [Internet]. 27 Nov 2023 [cited 5 Dec 2023]. Available: <https://www.publictechnology.net/2023/11/27/health-and-social-care/one-in-four-gps-yet-to-provide-patients-with-online-access-to-records/>
- Essén A, Scandurra I, Gerrits R, et al. Patient access to electronic health records: differences across ten countries. *Health Policy and Technology* 2018;7:44–56.
- Häggglund M, DesRoches C, Petersen C, et al. Patients' access to health records. *BMJ* 2019;I5725.
- Salmi L, Blease C, Häggglund M, et al. US policy requires immediate release of records to patients. *BMJ* 2021:426.
- Blease C, Walker J, DesRoches CM, et al. New u.s. law mandates access to clinical notes: implications for patients and clinicians. *Ann Intern Med* 2021;174:101–2.
- Moll J, Cajander Å. Oncology health-care professionals' perceived effects of patient accessible electronic health records 6 years after launch: A survey study at a major University hospital in Sweden. *Health Informatics J* 2020;26:1392–403.
- Delbanco T, Walker J, Bell SK, et al. Inviting patients to read their doctors' notes: a quasi-experimental study and a look ahead. *Ann Intern Med* 2012;157:461–70.
- Dobscha SK, Denneson LM, Jacobson LE, et al. VA mental health clinician experiences and attitudes toward Opennotes. *Gen Hosp Psychiatry* 2016;38:89–93.
- Petersson L, Erlingsdóttir G. Open notes in Swedish psychiatric care (part 1): survey among psychiatric care professionals. *JMIR Ment Health* 2018;5:e10521e10521.
- Petersson L, Erlingsdóttir G. Open notes in Swedish psychiatric care (part 2): survey among psychiatric care professionals. *JMIR Ment Health* 2018;5:e10521.
- Turner A, Morris R, McDonagh L, et al. Unintended consequences of patient online access to health records: a qualitative study in uk primary care. *In Review [Preprint]* 2022.
- Louch G, Albutt A, Smyth K, et al. What do primary care staff think about patients Accessing electronic health records? A focus group study. *BMC Health Serv Res* 2022;22:581.
- McMillan B, Davidge G, Brown L, et al. A qualitative exploration of patients' experiences, needs and expectations regarding online access to their primary care record. *BMJ Open* 2021;11:e044221.
- Walker J, Leveille S, Bell S, et al. Opennotes after 7 years: patient experiences with ongoing access to their Clinicians' outpatient visit notes. *J Med Internet Res* 2019;21:e13876.
- Moll J, Rexhepi H, Cajander Å, et al. Patients' experiences of Accessing their electronic health records: national patient survey in Sweden. *J Med Internet Res* 2018;20:e278.
- Blease C, Bernstein MH, Gaab J, et al. Computerization and the future of primary care: A survey of general practitioners in the UK. *PLoS One* 2018;13:e0207418.
- Ralston JD, Yu O, Penfold RB, et al. Changes in clinician attitudes toward sharing visit notes: surveys pre-and post-implementation. *J Gen Intern Med* 2021;36:3330–6.
- Blease C, Torous J, Dong Z, et al. Patient online record access in English primary care: qualitative survey study of general practitioners' views. *J Med Internet Res* 2023;25:e43496.
- Eysenbach G. Improving the quality of web surveys: the checklist for reporting results of Internet E-surveys (CHERRIES). *J Med Internet Res* 2004;6:e34.
- Blease C. Data from: experiences and opinions of general practitioners with patients Accessing their online record access in England: an online survey in England of general practitioners. *Experiences and Opinions Zenodo* November 30, 2023.
- Turner A, Morris R, Rakhra D, et al. Unintended consequences of online consultations: a qualitative study in UK primary care. *Br J Gen Pract* 2022;72:e128–37.
- Davidge G, Brown L, Lyons M, et al. Putting principles into practice: A qualitative exploration of the views and experiences of primary care staff regarding patients having online access to their electronic health record. *Br J Gen Pract* 2023.
- Blease C, Salmi L, Rexhepi H, et al. Patients, Clinicians and open notes: information blocking as a case of Epistemic injustice. *J Med Ethics* 2021;48:785–93.
- DesRoches CM, Leveille S, Bell SK, et al. The views and experiences of Clinicians sharing medical record notes with patients. *JAMA Netw Open* 2020;3:e201753.
- Rexhepi H, Ahlfeldt R-M, Cajander Å, et al. Cancer patients' attitudes and experiences of online access to their electronic medical records: A qualitative study. *Health Informatics J* 2018;24:115–24.
- Rexhepi H, Moll J, Huvila I. Online electronic Healthcare records: comparing the views of cancer patients and others. *Health Informatics J* 2020;26:2915–29.
- DesRoches CM, Salmi L, Dong Z, et al. How do older patients with chronic conditions view reading open visit notes *J Am Geriatr Soc* 2021;69:3497–506.
- Blease C, Dong Z, Torous J, et al. Association of patients reading clinical notes with perception of medication adherence among persons with serious mental illness. *JAMA Netw Open* 2021;4:e212823.
- Salmi L, Dong ZJ, Yuh B, et al. Open notes in oncology: patient versus oncology clinician views. *Cancer Cell* 2020;38:767–8.
- Mold F, de Lusignan S, Sheikh A, et al. Patients' online access to their electronic health records and linked online services: a systematic review in primary care. *Br J Gen Pract* 2015;65:e141–51.



- 35 Steitz BD, Sulieman L, Wright A, *et al.* Association of immediate release of test results to patients with implications for clinical Workflow. *JAMA Netw Open* 2021;4:e2129553.
- 36 National Academies of Sciences, Medicine. *Improving diagnosis in health care*. National Academies Press, 2016.
- 37 Gandhi TK, Kaplan GS, Leape L, *et al.* Transforming concepts in patient safety: a progress report. *BMJ Qual Saf* 2018;27:1019–26.
- 38 Blease CR, Bell SK. Patients as diagnostic collaborators: sharing visit notes to promote accuracy and safety. *Diagnosis (Berl)* 2019;6:213–21.
- 39 Neves AL, Freise L, Laranjo L, *et al.* Impact of providing patients access to electronic health records on quality and safety of care: a systematic review and meta-analysis. *BMJ Qual Saf* 2020;29:1019–32.
- 40 Tapuria A, Porat T, Kalra D, *et al.* Impact of patient access to their electronic health record: systematic review. *Inform Health Soc Care* 2021;46:192–204.
- 41 Bell SK, Folcarelli P, Fossa A, *et al.* Tackling ambulatory safety risks through patient engagement: what 10,000 patients and families say about safety-related knowledge, behaviors, and attitudes after reading visit notes. *J Patient Saf* 2021;17:e791–9.
- 42 Blease CR, Torous J, Hägglund M. Opinion: does patient access to clinical notes change documentation *Front Public Health* 2020;8:578.
- 43 Blease C, Cohen IG, Hoffman S. Sharing clinical notes: potential medical-legal benefits and risks. *JAMA* 2022;327:717–8.
- 44 Gupta A, Snyder A, Kachalia A, *et al.* Malpractice claims related to diagnostic errors in the hospital. *BMJ Qual Saf* 2018;27:53–60.
- 45 Singh H, Schiff GD, Graber ML, *et al.* The global burden of diagnostic errors in primary care. *BMJ Qual Saf* 2017;26:484–94.
- 46 Blease C. When patients are victims: access to online records and medical misconduct. *BMJ* 2022;379:2968.
- 47 NHS England. Digital First Primary Care. 2019 [cited 31 Aug 2022], Available: <https://www.england.nhs.uk/gp/digital-first-primary-care/>
- 48 NHS England. Investment and evolution: A five-year framework for GP contract reform to implement The NHS Long Term Plan, . 2019 Available: <https://www.england.nhs.uk/wp-content/uploads/2019/01/gp-contract-2019.pdf>
- 49 McMillan B, Eastham R, Brown B, *et al.* Primary care patient records in the United Kingdom: past, present, and future research priorities. *J Med Internet Res* 2018;20:e11293.
- 50 Blease C. We need to talk about “closed notes.” In: *BMJ* [Internet]. 15 Oct 2021 [cited 25 Oct 2021]. n.d. Available: <https://blogs.bmj.com/bmj/2021/10/15/charlotte-blease-we-need-to-talk-about-closed-notes/>
- 51 Blease C, Salmi L, DesRoches CM. Open notes in cancer care: coming soon to patients. *Lancet Oncol* 2020;21:1136–8.
- 52 Blease CR, O'Neill SF, Torous J, *et al.* Patient access to mental health notes: motivating evidence-informed ethical guidelines. *J Nerv Ment Dis* 2021;209:265–9.
- 53 O'Neill S, Chimowitz H, Leveille S, *et al.* Embracing the new age of transparency: mental health patients reading their psychotherapy notes online. *J Ment Health* 2019;28:527–35.
- 54 Blease C, McMillan B, Salmi L, *et al.* Adapting to transparent medical records: International experience with “open notes *BMJ* 2022;379:e069861.
- 55 Himmelstein G, Bates D, Zhou L. Examination of stigmatizing language in the electronic health record. *JAMA Netw Open* 2022;5:e2144967.
- 56 Blease C, McMillan B, Salmi L, *et al.* Adapting to transparent medical records: International experience with “open notes.” *BMJ* 2022;379:e069861.
- 57 Himmelstein G, Bates D, Zhou L. Examination of stigmatizing language in the electronic health record. *JAMA Netw Open* 2022;5:e2144967.