AI Scribes in healthcare: summary findings report

Hopkins Van Mil

May 2026

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Foreword

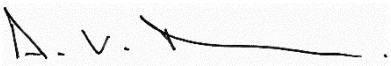
AI scribes hold genuine promise for the NHS. At a time when clinical workforces are under unprecedented pressure, the prospect of technology that reduces administrative burden and returns time to patient care is compelling. This also explains why uptake has been so rapid. Yet AI scribes bring with them real and well-documented risks: the potential to fabricate information, omit critical detail, or introduce bias into the clinical record. These risks can have serious consequences for patient care. Therefore, national attention, such as NHS England's guidance on adopting ambient scribing products, has focused on safety.

But safety frameworks alone are not sufficient. What has been largely missing from the conversation, until now, is the patient voice.

Newton's Tree commissioned Hopkins Van Mil, an independent social research agency specialising in deliberative processes, to run a public dialogue surrounding the implementation of AI scribes in the NHS. Patients developed a keen understanding of the topic and provided valuable insights on their expectations and concerns about the use of this technology. The themes that emerged should be no surprise: transparency, equality, and safety.

I want to extend my sincere thanks to the 41 participants from across the UK who gave their time and shared their lived experience. We should never underestimate people's ability to engage with complex issues. This public dialogue allowed the research team to explore in depth how the public views the use of AI scribes, and the values and principles underlying these views.

I hope that going forward we can deploy this technology in a way that aligns with public expectation and interest while maximising the benefits for all.



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Executive Summary

In December 2025 Hopkins Van Mil (HVM) was commissioned by Newton's Tree to design and deliver a public dialogue exploring the use of Ambient Voice Technologies (AVTs) in healthcare. We described these technologies in the dialogue as, "AI scribes" which is how we refer to them in this report.

The aims of this deliberative process were to engage and work with a diverse range of participants to discuss the public's views on how AI scribes should be used in primary and secondary care. In total 41 participants from across the UK took part in a week-long asynchronous online activity sharing information about AI scribes, and then attended a day-long workshop in London, held in March 2026, to develop their recommendations.

Context is important

Learning that AI scribes were already in use in the NHS concerned and frustrated participants. They thought it was important that patients were aware what was happening and why. Their wider views on AI shaped their views, and some had negative associations or experiences, especially with voice recognition software, which fuelled their concerns.

More broadly, people thought there were significant issues in the NHS at the moment, but did not think that taking effective patient notes was one of them. Similarly, they had mixed views on whether the NHS could successfully implement a digital rollout. On balance, some suggested AI scribes were a solution - but they were not clear what problem they solved.

Concerns about costs and staff training must be addressed

Participants want assurance that the benefits to patients will outweigh any costs, either financial or environmental. They anticipated that AI scribes could impact on the patient experience but were not clear whether that would be beneficial. They wanted assurance that patient needs would come first, including not changing consultations so that the healthcare professional was mainly speaking to the AI rather than the patient.

As they discussed the risks of bias, inaccuracy, and data breaches they concluded that healthcare professionals must be trained to mitigate against these risks, as well as having built in safeguarding measures. Views differed on whether the use of AI scribes should include diagnosis support.

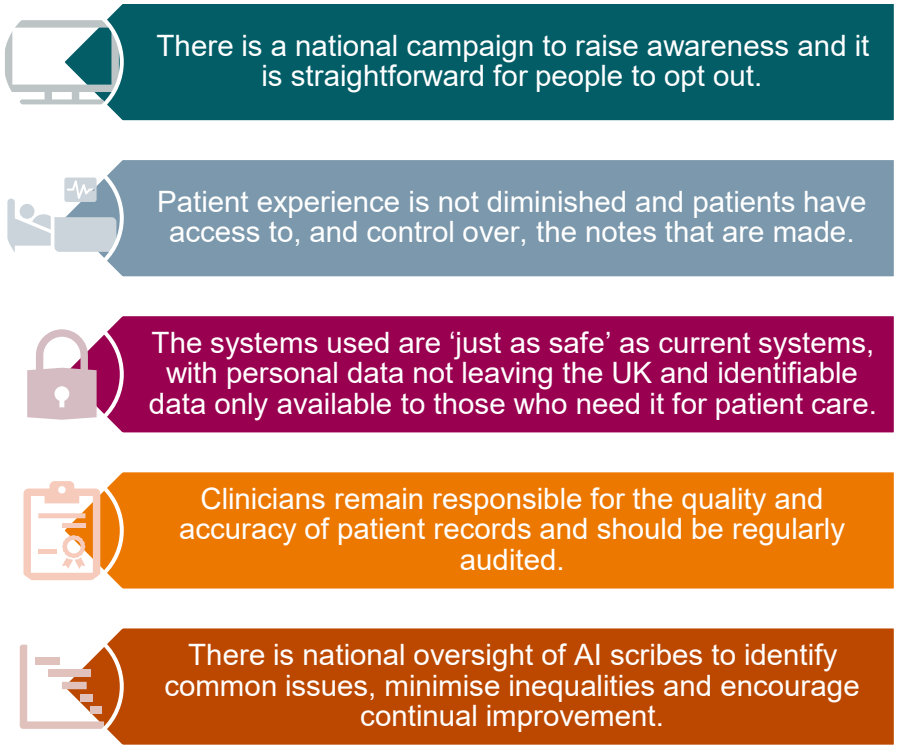
What patients want

Patients had a number of expectations which, combined, would mean they would have more confidence in the use of AI scribes in the NHS as a trustworthy tool. The expectations are:

- Seek informed consent, as implied consent is not sufficient without awareness raising. People need to know about AI scribes so they can make an informed decision, not based on assumptions or fear.
- Patients are the priority, and their experience should not be diminished by the introduction of AI scribes.

- Governance should be in place to ensure AI scribes are ‘just as safe’ as current systems. This includes both procuring good quality AI scribes and reviewing performance regularly and also paying close attention to data security and system resilience.
- Ultimately clinicians are responsible for ensuring the quality & accuracy of patient notes, regardless of whether they use AI to assist them. Some patients would appreciate the opportunity to contribute to this.
- If they are beneficial, AI scribes should be available for everyone and across the NHS rather than in pockets. This means efforts should be made to ensure the models that are rolled out are trained on diverse voices from the start.

In conclusion, participants recommended:



With these conditions in place, most people were keen to see AI scribes in use in primary and secondary care across the UK as a whole, ensuring that there is not a postcode lottery where some services use AI scribes but others miss out.

1. Introduction and method

1.1 Introduction to the project

In December 2025 Hopkins Van Mil (HVM) was commissioned by Newton's Tree to design and deliver a public dialogue exploring the use of AI scribes in healthcare. Whilst Ambient Voice Technologies (AVTs) is a term often used in healthcare settings, we used AI scribes to describe the technologies to dialogue participants, and therefore use it throughout this report.

Newton's Tree is a global healthcare AI company that enables healthcare providers to select, test, deploy and monitor in-house and third-party AI products through its enterprise AI platform. They believe that the sustainable delivery of healthcare relies on radically reimagining healthcare delivery through the large scale adoption of safe and effective technologies. They work with the leading health systems across the globe to develop and deploy the very best technology.

Hopkins Van Mil is a social research agency specialising in deliberative processes which bring people together to explore and understand society's challenges. For over twenty years we have designed and facilitated public dialogues including people in open and constructive conversations to build mutual respect and understanding. Our work which includes people across society, leads to actionable insights, collaborative solutions and evidence-based policy making.

The aims of this deliberative process were to engage and work with a diverse range of participants from across the UK to:

- Discuss the public's views on how AI scribes should be used in primary and secondary care;
- Explore hopes and concerns about AI scribes in healthcare, including the limitations and risks of the technology;
- Explore how the use of AI scribes in healthcare can be made trustworthy and acceptably safe by society.

Through the dialogue process running in March 2026 key questions were being explored such as:

- What are participants' hopes and concerns for AI scribes in healthcare?
- What should be done to ensure AI Scribes improve rather than erode the patient - health professional interaction?
- What should be done about inaccuracies, hallucinations or omissions?
- What are participants expectations around data protection?
- What are participants expectations around AI scribe monitoring and regulation?
- What should be done to ensure AI Scribes do not deepen health disparities and the digital divide?

1.2 Method and approach

The approach to this programme was designed to meet the objectives set by the Advisory Board working with Newton's Tree.

The process involved:

- Recollective: an online platform where information was shared with participants and they gave feedback, comments and reactions;
- A one-day face to face workshop.

HVM's approach to this qualitative research project used insights from each stage to inform the next, creating a deeper understanding of what matters most to people

Figure 1: Phase 1 programme overview

A recruitment specification was devised to recruit 42 participants broadly reflective of the UK population and allowing for some attrition. Demographic and attitudinal quotas were set to ensure a good mix of people. Travel and accommodation was provided so that participants could join from across all four UK nations.

In total, 41 people joined the process and were supported to take part in activities and discussions in a tailored online[1] space for the initial part of the dialogue. For five days participants:

- Reviewed contextual videos on what public dialogue is; the purpose of the dialogue; and an introduction to Newton's Tree and AI scribes in healthcare;
- Reflected on more videos showing AI scribes from an NHS doctor's point of view; a demonstration of what the technology looks like in practice; how data flows in the NHS; AI scribes in the context of the NHS 10 year plan; the various platforms and

[1] HVM uses Recollective, a qualitative research platform, on which we develop bespoke activities for our dialogue participants.

providers of AI scribes; reflections on the benefits of AI scribes; and considerations in relation to regulation[2];
- Responded to three case studies: fictionalised example of accounts of possible patient experiences of AI scribes;
- Noted down their questions and reflections in a designated questions area on anything that came up for them during their time in the online space.

The questions area was monitored by the project team and Dr. Hugh Harvey, healthtech academic, former consultant radiologist and Managing Director of Hardian Health, provided answers to some of the more technical questions at different points throughout the week.

For the concluding part of the deliberation, participants were invited to attend a workshop to explore the discussion points raised in the online space in more depth. The cohort met in person for a full-day workshop in London the day after the online space was closed. In total 40 participants attended.

The workshop combined presentations, facilitated small-group discussions, a panel discussion from four expert speakers and interactive activities. The session began with introductory briefings, including participant reflections from the online engagement activities, followed by expert talks on regulation, consent, data protection and clinical applications to establish a shared evidence base. Participants then engaged in iterative small-group discussions to identify key questions for the multidisciplinary panel. A live demonstration of AI scribe technology was used to ground discussions in practical experience. The participants engaged in a rotating carousel activity to deliberate across four thematic areas: consent, accuracy, governance and fairness, before synthesising their views to co-produce a patients' charter of conditions for acceptable and trustworthy use of AI scribes.

1.3 A note on this report

This reflects an in-depth qualitative analysis of the public dialogue findings. As such we do not report on the number of times something was said, but rather the strength of feeling expressed across the methods used. Grounded theory has been used, which means the transcripts are read and re-read many times. Key themes are then collated from what was said and these themes are used to draw out meaning from the discussions. This approach is used to ensure the findings are rooted in what participants told us, guided by the research objectives and the research questions, rather than looking for confirmation of preconceived ideas.

The programme engaged participants who were broadly reflective of the UK population in demographic characteristics, with boosts for those in lower socio-economic groups,

[2] Robin Carpenter, Head of AI Governance and Policy at Newton's Tree, gave an introduction to the purpose of the dialogue; Dr. Ellie Asgari, AI Scientist at Newton's Tree, Consultant Nephrologist at Guy's and St Thomas' NHS Foundation Trust and Honorary Senior Clinical Lecturer at King's College London, demonstrated how AI scribes work; Dr. Joseph Alderman, Lecturer in Anaesthetics, Postdoctoral Researcher in AI and Digital Health at the University of Birmingham, spoke on managing bias; Dr Youssof Oskrochi, a public health and digital health clinician and Head of Safety at Curistica, shared on NHS data flows and key considerations for regulation; Dr Jess Morley, Associate Research Scientist at the Yale Digital Ethics Center, showed how AI scribes work; and Pritesh Mistry, independent expert, spoke on the benefits of AI scribes for patients and clinicians.

people from minoritised ethnic groups and those with long-term health conditions. This is to ensure that no one is further minoritised by being the only person from a specific group involved in the discussions. Generally commonalities, patterns and differences were analysed across the complete data set.

As in all qualitative research reports the following quantifiers are used in this report:

- ‘Many’ or ‘most’ when it is clear that all or almost all participants shared a similar view;
- ‘Some’ when a reasonable number of participants shared a similar view;
- ‘A few’ when a small number of participants shared a similar view.

Bullet points are used to summarise key points made. These mostly reflect areas of agreement and where points were made by many participants across the groups. In this dialogue participants reflected together on the implications of a topic for society. For this reason our analysis does not pull out differences in view according to demographics.

Anonymised quotations are used to highlight points made by participants and to underline points made by a range of people. They also highlight points of particular significance to participants. We use quotations to share with vivid examples the views of participants in their own words.

2. Context is important

Before going into the detail of participant's expectations of AI scribes, it is important to take a step back to understand their views on the context within which AI scribes are being introduced, which influenced participant views throughout the discussions. These include:

- Low awareness of AI scribe use in the NHS which caused frustration;
- Wider views about AI which influenced people's initial responses to the idea of AI scribes;
- The wider challenges facing the NHS and the issues that are a priority for patients;
- The NHS track record of implementing digital solutions

> *"…was it two-thirds of us had never heard of AI Scribes before joining this? That's not OK."*

Ultimately, some people echoed wider societal concerns about AI that it might be a solution without a problem. They were not necessarily averse to its use if it follows the expectations set out in the remainder of this report, but were also not enthusiastic to give the green light unless there was evidence it would have tangible benefits.

2.1 Low awareness of existing AI scribe use caused frustration

The first, and perhaps the most important thing to note from a participant perspective is that they were being told that AI scribes are already in use in the NHS up and down the country. However, very few of the participants were aware on joining the dialogue that it had been used in any of their recent interactions with the health service.

This resulted in some frustration, with people feeling they were being asked too late, while others would have liked to hear more evidence about how the technology was working in practice.

> *"It's been happening now for two years. Where's the data to show if it's improving or not? Surely, after that amount of time, we should be able to get to somewhere."*

There was an appetite for AI scribes to be tested openly, and transparently, so that people would be aware of this and the value of AI scribes could be evaluated with patients' understanding and buy-in. Participants were unclear whether AI scribes would save time once sufficient accuracy checks were in place, and thought more evidence was needed to justify the cost of investment.

> *"At the moment, my GP sees six patients an hour, and I cannot see how they can make it to seven or eight patients an hour. It's going to be very difficult to add any more patients on there. I think actually reading the script once it's been sort of recorded and put on the system, and then correcting it and then putting it back, it's not going to save time, in my opinion."*

They also recognised that if doctors have to spend time explaining the technology to patients, in the short-term this could mean that doctors would need longer appointments so that they had time to answer questions.

They wanted to know what healthcare professionals themselves think of the technology, and whether they would be compelled to use it.

Some participants wanted to turn back the clock and be involved much sooner. These participants were concerned that the NHS had started in the wrong place: using AI tools that were not trained appropriately, rolling out to a workforce not equipped to use them and not informing patients about their use. While they felt that this could be addressed going forward, they were unhappy that decisions had been made already which they did not agree with and which influenced the direction of travel.

> *"If it doesn't get stopped to say something's not right here, it's not going to get better over time. It's going to get worse because it will continue going the wrong way."*

Going forward, a few participants were concerned that if they did not agree to the use of AI scribes for their healthcare that they would eventually be unable to access the NHS at all.

> *"I have so many concerns about the use of AI, and I don't feel people always get a say because we don't get to choose which AI system the hospital uses. And if all your information is being stored electronically, and that's the way that's going forward, it will get to a point where you go to a GP surgery, you need urgent care, and they're like, we can't find your information because you're not in the system."*

2.2 Wider views about AI shaped people's reactions

The research team used the term AI scribe rather than the more technical 'Ambient Voice Technology' or 'AVT' to make discussions more accessible to participants. However, during discussions some of the specialists used the term AVT as this was the term they use on a more regular basis. Some participants picked up on this and suggested the NHS might want to keep with the more technical language, as they felt that AI was associated with negative connotations, referencing films such as Terminator where AI poses an existential threat to humanity, or the use of AI to create deepfakes.

> *"I don't like the term AI scribe, to be fair, because AI has such bad connotations these days."*

Some people expressed concerns about the organisations and people behind the AI, who they did not feel hold the same values or life experiences as people in the UK using the NHS. They thought it was important for any AI support to be high quality, and were concerned that using older AI technologies, or paying less would be a false economy.

> *"What really worried me was if it was available two years ago, AI was really dodgy back then, it was really, really unreliable, and it's not 100% now, and without wishing to, what's the word, uncook the omelette or whatever it might be the phrase, surely the priority should be, even if it is more expensive, getting it right, not just buying a package."*

Others were aware of concerns about AI regulation more generally, and did not feel that AI tools being used in the NHS would be any different. As such they were concerned about the flouting of regulations and laws and what this could mean in a healthcare setting.

"The whole world of AI is like the Wild West anyway. There is very little regulation. So, why would we think there would be more? Because it's one of these outside companies. It's illegal. Copyright, etc. doesn't exist as far as AI is concerned."

Additionally, concerns about the environmental impact of AI were raised by a few participants who questioned whether the environmental cost of the use of AI scribes was being considered, alongside the financial cost. They felt this was particularly important in the context of climate change in itself putting more strain on the NHS. Some noted the impact that AI company's demands for water and microchips were having on wider society, and the potential unsustainable nature of the technology, although others were not aware of these issues.

"You know, you buy your average machine now, the prices have gone up for memory, for rent, all sorts, because AI is just stealing it all."

2.3 Participants voiced concerns about the NHS more generally

Regardless of their views on AI specifically, participants expressed concerns about the state of the NHS currently. They referred to long waiting lists and burnt-out staff. Some also mentioned the lack of joined-up information, and the need to keep retelling their story as they were passed between departments.

In this context, participants were concerned that AI scribes were not going to make enough of a difference to the fundamental issues facing the NHS, and worried it may distract from finding more transformative solutions that they felt were necessary. As outlined below, they had concerns about the costs of implementing AI for an NHS with a limited budget.

In some discussions, participants conflated concerns about AI scribes with concerns about privacy more generally. Knowledge of how data is collected, processed and stored was relatively limited, meaning that in some cases people were objecting to the use of AI scribes but in reality their objections related to more fundamental decisions about how the NHS handles data.

2.4 Mixed views of NHS implementing digital solutions

Some were positive about relatively recent digital solutions, including the NHS app and the option of an e-consultation, both of which they felt were improving their experiences. Specifically, they could get quicker access to the right specialists.

"I love going on the [NHS] app every time I have an appointment."

However, others expressed concerns about the current and future cost of using AI scribes within the NHS, and whether the money would be better spent on other things. They reflected that the NHS did not necessarily have a good track record in procuring IT solutions which offered value for money, and were concerned not only about the short-term cost of roll-out but also the longer term cost of maintaining the systems so they do not become obsolete.

"…A few years back, the NHS spent millions of pounds on getting new software computers, and it was completely out of order, and it wasn't working well, and they threw over millions of pounds, and the worry did come to my mind, are they

going to spend another few more billions there, and then it's not going to get anywhere."

A few mentioned concerns that if doctors became over-reliant on AI they might not learn skills such as writing notes which would be useful to have if the system went down. Recent examples such as the malware attack on a London hospital were mentioned as reasons why the NHS should avoid becoming too reliant on technological solutions.

2.5 A solution without a problem?

Overall, it was not clear to participants what problem AI scribes were a solution to.

"It's a classic, the technology is looking for applications."

- Some were open to the idea that it could mean doctors did not need to type while talking to them, but it was not clear this was necessarily an issue from the patient perspective, and certainly was not one of their main concerns about the NHS at the moment;
- Some were hopeful that it could mean that their story followed them more reliably between hospitals and departments, but understood that this is likely to be a more fundamental issue relating to the way records are shared rather than specifically an issue AI scribes can address;
- Some suggested it could lead to time-saving with more time to see patients, thus reducing waiting times and making appointments easier to get. But not everyone was convinced the technology would save time, or that it would be safe for healthcare professionals to see more patients without contributing to their burn-out.

"Have we got cold hard evidence that this is worthwhile, even though it's still early days? I know you can't know everything, but, what is the evidence?"

On balance, most participants remained open to the idea of AI scribe usage if the NHS evaluated it and found it helpful, but the benefits were not necessarily immediately clear.

"It's going to be pointless if you're not saving time and increasing the patients being examined. I just feel like it's not really worth it otherwise."

3. Underlying assumptions

Participants discussed a number of cross-cutting assumptions throughout the discussions.

- The benefits (to patients) must outweigh the costs (financial and environmental);
- Medical professionals must be trained in using AI scribes;
- These recommendations apply only to AI scribes and not wider uses of AI in the NHS.

When these topics arose, they were often positioned as non-negotiable conditions for the use of AI scribes in the NHS (i.e. red lines).

3.1 The benefits must outweigh the costs

Although the sessions were not designed to explore the relative costs and benefits of AI scribes, to enable sufficient time to do justice to the research objectives, nonetheless value for money and cost-effectiveness were topics that arose across all the tables. Participants were concerned about the cost of the NHS of widespread AI scribe usage, and the underlying view appeared to be that they were not willing to pay more for AI scribes to be used, but may be open to it if it was cost-saving overall.

It was not clear to some participants how AI would lead to any efficiency savings, especially if doctors had to spend time reviewing and amending records, for example if errors were made in transcriptions due to a regional accent or dialect. They recognised that their recommendations to ensure close monitoring and review of outputs would add to the cost, but were not comfortable with the use of AI scribes without these quality checks.

> *"If doctors have to spend that time revising the information, for instance with accents or slang or with any sort of those examples… that isn't time efficient."*

> *"Because it's going to have to be reviewed by a human. So it's kind of, I feel like it's kind of defeating the whole purpose of the timekeeping thing. Because a human has to go over it anyways"*

There was also concern that if AI scribes did lead to time saving for medical professionals then they would be expected to use the additional time to see more patients, thus maintaining not addressing the pressure on the workforce. If the time savings were mainly for administrative staff, concern was expressed that there would be job cuts. They felt this could result in the NHS not having enough administrative staff to support with other administration work such as checking and submitting data to NHS England.

> *"Is this a band-aid for an under-appreciated workforce?"*

Some participants felt that even if AI scribes made life easier for doctors or the NHS, this was not necessarily a benefit to them as a patient. As such they did not want to pay additional taxes to cover the cost, or accept the potential risks of AI use.

> *"Who's it for? Is it for the benefit of the doctor or the patients?"*

"The issue is what the cost is, what the benefit is, and does it outweigh the other?"

"…A lot of the conversation has been about the efficiencies it will save for the NHS... But that has a risk to patients if it's [not] accurate. So is it fair for patients to bear that risk if it will impact their care?"

A couple of groups also raised specific concerns about the route to procurement, how many AI scribes would be procured and who would be responsible for contracting. They felt that the quality of the procurement process could significantly impact on whether or not AI scribes were of sufficient quality to be used.

"Who's deciding where they're going to get these AI tools from and where are they getting them from? Who's choosing that? Like the masks in Covid, where they got those from, and they made a big profit."

As outlined above, some participants were also concerned about the environmental cost of AI. They suggested that the use of AI should not be the default, and instead the NHS should think carefully about if and when the use of an AI scribe would be useful and justified.

Participants were also clear that to justify a move to AI scribes, they must be at least as good, if not better than the current system of note-taking, which, in their experience, is working satisfactorily for them already.

"Because if you're going to replace a human, why would you replace it with something worse?"

3.2 Impact on patient experience

Participants were invited to share their hopes and fears for the use of AI scribes and how that could impact on the patient experience. On balance, most were not aware of any problems with the healthcare professional taking notes themselves, and as such they were struggling to see the benefits of AI scribes.

"I was in the GP about two or three weeks ago. And, the doctor was just taking notes as normal. And I didn't feel she was ignoring me. I thought she was excellent. And, the only time I've had a negative time for GP... He was taking notes just like her, but it was just his personality. The AI scribe can't fix that."

The main topics they discussed were whether AI scribes would allow healthcare professionals to be more patient-focussed, and how the introduction of AI scribes might change the behaviour of professionals and the public.

Increased patient focus

Some patients were positive that an AI scribe could enable the healthcare professional to focus more on the patient in front of them.

"If you've got the AI that's scribing for you, I think it's actually really good that the doctor can focus on you, rather than constantly looking at a computer screen, typing. So they're doing two things at once. They're putting the patient first, which is the pivotal part of healthcare. You've got to put the patient first."

However, while an AI scribe might enable the healthcare professional to spend more time looking at, and engaging in eye contact with, the patient, not all patients feel comfortable with maintaining eye contact and may prefer their doctor looking at a screen. Others felt that their doctor generally looked them in the eye while taking notes so did not perceive there to be a problem that needed to be solved.

> *"He was looking at me the entire time, so I found it unsettling, because I'm not used to him looking at me, I'm used to him looking at the computer screen."*

Whether AI scribes would actually take pressure off practitioners was a secondary concern to some participants, although most thought that if scribes genuinely reduced the pressure on healthcare professionals this could have positive impacts for patients too. However, as noted elsewhere, not everyone believed that AI scribes would lead to less work.

> *"We do care that our practitioners, because we know that they're under so much pressure, and we do care that they're being looked after by the system they're working in."*

Changing behaviours

Over time, one group was concerned that healthcare professionals might change their approach to adapt to the presence of the AI scribe. They thought that sometimes changes to standard practice would be necessary and that this could help improve patient records, such as speaking out loud to capture non-verbal information (see section 3.4).

> *"It would be really useful in some scenarios, like if you're examining somebody head-to-toe with a car accident or something, and you're asking loads and loads of questions and touching lots of bits of the body, for something else to be recorded, Everything that was said would be really, really useful because you can't do it and write it at the same time. But we didn't know where you were touching?"*

However, some were concerned about how this might impact on the patient experience. For example it might feel odd to hear a doctor describe how you look or verbalising what they or the patient was doing, especially if they looked distressed or upset. They thought it was important to ensure that this did not mean that the patient experience would get worse.

> *"Maybe then patient isn't necessarily getting the full benefit of the care, because you're making accommodations to make it easier for the AI scribe. So, if that were ever to conflict, then patient care should supersede that, because it's just there to be there as an aid, it is not there to be, it's not the main thing."*

Similarly, some people were concerned that patients would change their behaviour and might self-censor if they thought they were being recorded. In extreme cases they thought people might be put off accessing healthcare. They suggested that some level of censorship could be rational behaviour given people might be auditing the recording and notes for accuracy. They also discussed what would happen if a patient disclosed something during a consultation, such as being a victim/survivor of domestic violence. It may or may not be relevant to the reason that they came to the appointment and they

may or may not want that information captured on their record but it would not be clear how the AI scribe would use the information (or not).

> *"You're not going to turn round and open up to a doctor if you know it's going to be recorded. You know, you're going to miss certain bits out, and that's not going to give a true outlook."*

> *"I already use AI, but I would still be concerned about what I'm putting into it, especially because I imagine lots of people are going to look at the recording to make sure it's all right and stuff. So if I'm saying really sensitive information to me that I'm embarrassed about, I'd be reluctant to share it.*

However, one group suggested this was not dissimilar to going to an appointment without an AI scribe, as the healthcare professional would still make notes and decide what to include within them from everything that was discussed.

> *"I see it just as the same, I should say, as the doctor taking notes and writing in your file. It's just the AI scribe, he's taking the notes and putting them into your file. So personally, I don't see any difference."*

Similarly, one group talked about the idea the healthcare professional doing a wrap-up at the end of an appointment being best practice anyway, and that this would also help the AI scribe.

> *"I think one should argue doctors should be doing that anyway because you should listen to your patients and then at the end of the day, set a game plan. Say, okay, if I'm understanding correctly, what you've told me is blah, blah, blah, blah, blah. And so based on that, this is what we want to do. And I think that might be what doctors need to do to ensure that the AI is picking it up. So I don't think it changes fundamentally the doctor-patient reality. It's just a reminder that at the end, you need to sum up what you said so that the AI picks it up."*

Other aspects of patient experience

A few topics came up on just one or two tables. These included:

- The importance of monitoring patient feedback. Participants wanted to keep the use of AI scribes under review, to ensure that the patient experience was positive.

> *"Getting patients input, if they think it's improved, rather than whether the doctors and nurses think it's been improved"*

- Whether AI scribes could make the patient experience worse, especially in the short-term, as healthcare professionals might be watching the AI transcript to check it for errors as it was generated rather than focussing on the patient, or might have to spend time explaining the technology which would take time away from doing their actual jobs.
- Whether AI scribes would be helpful to medical professionals, who could listen back to the recording or look at the transcript later, in the same way they thought that some doctors used Dictaphones in the past.
- Some participants wanted the right to review the AI scribe's transcript and any resulting notes and to be able to make edits, although others suggested it might be traumatising to re-read a transcript of a difficult conversation.

- Questions about how the AI scribe would handle transcription and notes when there was more than one person in the consultation, and whether it would differentiate between the patient and their carer or potentially a controlling partner.
- Some groups were not ready for the AI scribe to take over note-taking responsibilities, and wanted their healthcare professionals to be taking notes in parallel so they could cross-check the outputs afterwards.

> *"I'm not confident to say that a doctor should not take any notes and then have to recollect from their memory and not written notes in comparison to what was recorded."*

3.3 Medical professionals must be trained to use AI scribes

Training was a recurring theme across the discussions. Specifically, participants thought it was vital that the NHS staff using AI scribes received appropriate training.

> *"It should be compulsory if you're going to use the AI scribe to do training before you use it as the clinician."*

This training should include:

- When to use AI scribes (and when not to).
- Being confident using AI scribes, understanding strengths and weaknesses.
- Keeping up to date with AI developments.
- Differentiated training and support.

Each of these topics is explored in more detail below.

When and how to use AI scribes

Participants were clear that in some instances it would not be appropriate to use an AI scribe, specifically when it would not be in the patient's interest. In the case studies shared with participants they were given the example of a patient with schizophrenia who might be uncomfortable with the use of an AI scribe, but they felt there would also be other instances too. Consequently, they wanted all staff to have training so that they would use AI scribes only where it was appropriate to do so (as outlined in 3.2 above).

> *"Like we said with the guy with schizophrenia, that's a thing like when we're not going to use it for this patient. So I think that needs to be something that every doctor or nurse thinks about."*

Participants also reflected that to use AI scribes well, medical professionals might need to work differently, for example, verbalising their observations about a patient so that they were captured in the record. However, they were not sure how patients would respond to this, or whether it would always be appropriate.

> *"I was thinking before, clinicians and support staff would have to be trained to verbalise what they're seeing so that it's captured in a transcription. So the way they'd speak to people would change, but I don't know how that would be received by patients."*

Understanding AI scribe's strengths and weaknesses

Participants understood that while they wanted to ensure that AI scribes minimised errors and hallucinations this would not be completely designed out. Equally, participants discussed making healthcare professionals aware of the risk of bias as another way to mitigate against it.

"Comprehensive training can be used about its bias and certification annually."

They thought it was vital that people using and checking AI scribes understood the potential risks and were checking for them (as outlined in 4.3 below). They thought that this would require training.

> *"All health professionals must be trained on how to use the AI scribes, the negatives and the positives."*

> *"I think while the AI makes mistakes, I guess knowing what those mistakes might be so you can look out for them and mitigate for them and challenge them. We don't have to take what the AI says as right, we can challenge it."*

Participants wanted healthcare staff to be confident in the AI scribe, so that they could also provide reassurance to patients, if appropriate.

> *"It would come down to its effectiveness and how confident the doctors are using it, which will then impart on how confident patients are in it being used."*

The training should also cover what to do when things go wrong. Participants included in this the need to ensure resilience if the AI scribe stops recording, or includes conversations with several different patients on the same record because the healthcare professional was unable to stop and restart the recording between patients. Similarly, it should ensure that healthcare professionals can continue to do their job if access to an AI scribe is not available.

> *"…things like Amazon Web Services go down like they did a few weeks ago, will they have the skills to multi-task as they would have done prior to the AI transcripts?"*

Keeping up to date with AI developments

Participants were very aware how quickly AI capabilities are changing. They thought that a one-off training course would not be sufficient. Participants specifically discussed the importance of undergoing training every year to keep up to date on fast-moving technological developments. They envisaged this could be e-learning with a short test at the end to ensure comprehension.

> *"I think it should have a quiz as well, because retraining the same thing doesn't double-check that the basics that you think you've trained them already, they know… It's not to catch people out, it's to sort of plug any gaps really."*

They wanted to make sure that users understood the full functionality of the AI scribes, and how to support the AI to continue learning. For example, making sure that they provide feedback to the AI scribe so that it improves quickly, noting that this may need to be carefully managed to also protect patient confidentiality (see 4.2 below).

> *"I only use [Alexa] to wake me up in the morning, because I just don't really know how to use it. So I'm probably not using it to its best. Does that make sense? And*

if I don't learn how to do that, it's not gonna get any better. And what I get out of it's not gonna get any better."

Differentiated training and support

Some participants discussed how different people might need different support to adapt to the use of AI scribes. In particular, they thought that older staff might find it more challenging to adapt their practice to integrate the new technology and might need additional support. They wanted to avoid a situation where some older doctors decided not to use the technology, while younger doctors did use it, creating a differential experience for the patient based on the healthcare professional's preferences, rather than what would be good for the patient.

> *"A junior doctor that's just graduated is going to have a much better use of IT than a doctor that's nearing retirement age. So ensuring that there isn't a two-tier… I know in my GP practice, I don't have a set GP… So making sure [AI use is] consistent."*

Similarly, one participant discussed how their ADHD means that they concentrate better when taking notes, and they wanted assurance that medical professionals would be supported to make appropriate adjustments if using AI scribes could interfere with their ability to do the job well.

3.4 Recommendations assume that AI scribes 'only' take notes

In the set-up of the discussions, specialists made an effort to explain that the role of an AI scribe is to capture notes about a discussion between a healthcare professional and a patient, not to provide a diagnosis or diagnostic support. Nonetheless, some participants assumed that this would be the next logical step and voiced concerns about the implications of this for healthcare.

> *"The other thought I have is, is it the start of a slippery slope? Yeah. So, you know... Not only that, but basically then doing the consultancy, the AI is the one that ends up being the consultant rather than an actual consultant."*

> *"I feel like the potential is that it leads to doctors not being needed. I think that the part of the training is to make sure that you're still an important integral part of the appointment, so you're keeping still, you're still using your brain."*

> *"I have a couple of concerns: a) Could AI scribes go beyond just transcribing and potentially 'mask' lack of knowledge of a medical professional? b) What happens after extensive learning AI scribes provide a view/conclusion/ diagnosis beyond the remit of the medical professional?"*

They wanted to make it clear that their recommendations were based on the assumption that AI scribes would be limited to taking notes. The topic was not systematically discussed, but some participants were not comfortable with the use of AI scribes as a diagnostic tool: they had different concerns including mis-diagnosis or even built-in biases that could be detrimental to the patient's interests.

> *"The next worry is when the AI scribe gets more dependent on, and it starts getting more involved in diagnosis, that's when you're starting to get into the realms of, is it starting to diagnose? Because you know when you do a Google*

search of your symptoms, it's like, oh yeah, you've got, you're having a heart attack."

"Will AI consider all of the potential medications or will it be programmed to consider medications by all companies or will it be programmed to consider the most cost-effective or ones that are manufactured by preferred suppliers?"

Others spontaneously mentioned that they thought it could be a helpful support to doctors, suggesting additional follow-up questions or rare diagnoses to consider.

"I'd be fine with [it making clinical decisions] because if there was like a suggestive part of it not in the notes but just a suggestion based on symptoms that were presented… because, like you were saying, you had to go to multiple doctors to get different doctors opinions: that would probably eliminate a lot of a lot of that."

Some were unclear whether the AI scribe's version of a consultation would then dictate the next steps for a patient or exactly what goes on their record. Specifically, if the notes said a test was necessary would the doctor check that was correct and be responsible for it. They also noted that a doctor does not always specifically speak out loud a diagnosis with the patient, but will have something in mind when they refer for future tests, and they were not clear whether that would also get recorded somewhere.

4. Deep dive into the use of AI scribes

Participants spent most of the day deliberating on four topics:

- AI governance and data security;
- AI quality and accuracy;
- AI fairness and bias;
- Patient experience and consent.

This chapter explores participant's hopes and fears about the impact of AI on the patient experience, each of these topics are then explored further. All the topics are inter-related, for example an AI scribe would not be considered to be of sufficient quality if it was very biased, and one aspect of ensuring quality is through governance. Equally, there are tensions, for example between the expectation for AI scribes to be continually learning and improving, while maintaining an appropriate level of data security. Therefore, all four topics must be read together to get a full understanding of the discussions.

> *"How are you not using your own data to make it more tailored each and every time? Like I understand the data protection side of things, but I don't understand how there isn't a way around it to anonymize the data and have that model be trained by, you know, the everyday interactions that you have with patients."*

Participants did not necessarily distinguish between the use of AI scribes and wider considerations about NHS notes. While the use of AI scribes is new and poses additional questions, there are already systems and processes in place which relate to how NHS records are held, who can see them, what they are used for, and opt-outs are available for some but not all of these uses. It became apparent in the conversations that not all participants were aware of these processes, and their views did not necessarily align. There was not time to unpick what happens already and why, as this is being explored in other engagement activities.

4.1 AI governance

Views on AI governance were closely linked to views on quality and accuracy (see section 4.3). Conversations focussed on who can see the data and for what purpose. Specifically they talked about:

- National governance to ensure compliance with good practice;
- The role of good procurement;
- Other considerations: access controls, protecting healthcare professionals and patients and reviewing the decision to use AI scribes.

There was also a strong link between participant views on AI governance, how to ensure accuracy of individual records, and the importance of patient awareness and informed consent. This is addressed in other sections.

National Governance of AI scribes and their use is expected

Some groups discussed putting in place governance to ensure good practice is followed. This would include regular checks on data security measures (see 4.2), staff training (see 3.3) as well as assuring the quality/ accuracy of the AI outputs (see 4.3) and safe

destruction of data no longer needed. Some groups also suggested auditing the environmental impact of AI scribe usage. One group discussed the importance of both clinical and technical auditing.

Some participants noted from the specialist presentations that there is an AI scribe registry of approved technology providers. They thought this was necessary but not sufficient to ensure good practice was followed. Specifically, they were concerned that if individual NHS organisations purchasing AI scribes become responsible for ongoing assurance and were concerned that they might not want to admit if the system was not working as well as they hoped. Similarly, another group raised concerns that healthcare professionals required to use an AI scribe might be nervous to speak up about any issues, because of the potential cost implications of having to make adjustments to the technology.

> *"Is there an independent body that sort of oversees continued compliance? As opposed to just the organisations using them, who don't want to make a change. Yeah, because they're not going to give themselves a bad grade necessarily."*

> *"Because to what extent might they be incentivized to speak up to say, actually, this is doing something wrong if it's going to cost the hospital more money to fix it…?"*

Participants assumed that monitoring and governance would apply to both the NHS and the companies providing AI scribes. They thought that it was important to monitor both, especially as there was limited trust of the private companies handling NHS data.

> *"I would say that they know that it's actually being destroyed and it can't be recovered. It should have a regulation in place… they should have a legal requirement that [the data shared with AI scribes] will be destroyed within a time frame."*

> *"I think I'm just paranoid of, like, data companies and, you know, the AI, people who create the AI. it's like, well, who's checking this? Who's enforcing that they're doing it?"*

Participants discussed the importance of having multi-level systems to assure AI scribes. Specifically, they expected individual NHS organisations, such as GP practices and hospitals, to be responsible locally, but also wanted a national body to provide assurance, such as the Care Quality Commission or an equivalent body. One group suggested establishing a board with different technical and medical knowledge that would oversee any patient complaints about AI scribes.

> *"The point is, I think, that you expect there to be an independent body. That could be repurposing one or charging one that already exists with that purpose."*

A suggestion was made that professional regulators might also have a role, given the healthcare professional's duty to ensure individual level records are accurate. They reflected that while the individual might not be to blame for creating an incorrect record, they should be held responsible for not correcting it.

> *"In terms of the software, I'd agree absolutely that it's the Trust or whoever who is responsible for that. But the user is responsible for what information they put in or*

what they sign off on. So if the GP reads the summary and goes, yeah, that's fine, boom. Then that's on them."

As outlined in 4.3 and 4.4 below, participants thought this assurance should include looking for patterns in the data, specifically whether accuracy varied for particular types of patients. They thought any variance should be communicated to healthcare professionals so that they could be aware of potential risks when using scribes, while also raising it with AI scribe companies to encourage them to improve their technology.

"It should be a set standard. And then monitor it to make sure that it's not different for different groups of people."

Some people felt strongly that it was vital that the NHS should find a way to anonymise the data being shared with AI scribes so that it could be used for training without risk to the individual. Others did not want their data to be used in training.

"That would be my concern, what can happen now, when my data is being used to teach?"

Procurement should be on more than just price

Another recurring theme was the importance of good procurement practice. Specifically, while participants thought that getting good value was important, they did not want to see a competition based on price alone. They felt that this could risk too many quality issues. Instead, one group suggested agreeing a set of minimum standards that all AI scribe providers must adhere to and monitoring performance against these standards to ensure they were upheld. They thought these standards should apply across the UK rather than varying by region or nation. Another group highlighted the importance of including both healthcare professionals and IT professionals in developing these requirements.

"One set of checking rules for the whole of the UK please, and all the companies should follow the same standards. Keeping competition will drive quality as long as we don't buy on price alone"

"The governments in conjunction with clinicians should agree what is an acceptable error rate for the AI scribes, whether it's 1% or 5%, but I think there needs to be a standard."

Ultimately, they wanted contracts to make it really clear who was accountable for what, so that if anything went wrong there would be no question of who is responsible. Some people thought it might be better to procure one AI scribe for the whole NHS so that everybody uses the same system be familiar with it. However, others were comfortable with the use of different providers in the hope that it would drive competition and improvements in quality over time.

Other considerations

In a few group discussions participants mentioned additional considerations around the governance of AI scribes and their usage in the NHS; use of access controls and protections for healthcare professionals and patients. These issues are wider than just the use of AI scribes, but were considered very relevant to their use and rollout. Finally, one group also talked about a process for reviewing the decision to use AI scribes in the NHS.

Implementing access controls

Participants also discussed the importance of managing who has access to what data. They talked about this in the context of the NHS with only staff who need to know something having access to that part of your record. They also spoke of it in the context of AI scribes and cloud storage solutions. Specifically, they wanted assurances that not all staff working at an AI scribe company or cloud storage company could access their medical data.

> *"The companies that... I don't know if overseeing is the right word, but the companies that store the data, I feel as though it should be a systematic process of who actually gets to access it, not just the whole company as a whole. Like, the people in charge of AI, for example, aren't able to just access everyone's information. It should be more like... Like, the relevant people."*

Protections for healthcare professionals

A couple of the groups also discussed whether it would be necessary to put in place protections for healthcare professionals using AI scribes. Specifically, ensuring that they were not required to use them against their better judgement or in circumstances they did not feel were appropriate, and also protecting them if they raised concerns about the quality of an AI scribe. They recognised that it is important to have protections in place for whistleblowing and wanted to ensure that healthcare professionals had this in place with regard to AI scribe usage.

> *"Is there a clear process in place for whistleblowing? And maybe part of the regulatory body. Part of their role is to ensure that trust to our practices aren't forcing the scribe onto their GPs."*

Protections for patients

Other groups discussed protections for patients. For example, one group discussed the importance of healthcare professionals declaring any conflict of interest if they had shares in any company producing an AI scribe. Another group discussed how to ensure that doctors were not using the AI scribes without patient consent, or if a patient had actively opted out as they were conscious they would not know if it was recording. They wanted to believe that this would be audited to ensure it was being used appropriately.

> *"I could say, I don't want the AI scribe to be used and he could just use it anyway. Yeah, you would never know. And there are situations where I'm not the wiser."*

Review of decision to use AI scribes

Some groups discussed having a public review board who would look at the implementation of AI scribes and who could stop their usage if necessary. They were concerned that otherwise inertia would mean the technology continued to be used even if it was not fit for purpose. They wanted the panel to be made up of patients and experts and to look at the data to evaluate whether or not AI scribes should continue to be used.

4.2 Data security

Participants had diverging views on data security, as they struggled to balance their desire for an audit trail and transparency, with the value of minimising how long data is kept and who has access to it to reduce the risk of it being lost or stolen. They were clear however that they wanted someone to be accountable for ensuring their data was secure, and expected to be able to hold them to account if any data was lost or stolen.

"For somebody to scam it, it only takes one day or one hour. If it's there in the evening, it tells all the 10,000 files. If somebody scams it, it takes all 10,000 files away. It's too late after three days, isn't it"

"If something does go wrong because something's not been interpreted right and it's not been checked correctly, then surely you have to keep all the information, all the notes and what was said, what was recorded, because it could be a lawsuit."

Complete agreement was evident across all participants that the audio recording and transcript should be considered very sensitive data, especially if the patient was identifiable in the data.

How long to store the data?

Some were also conscious that storing audio recordings, transcripts and notes (see 4.3 below) would result in high storage costs and therefore a balance would need to be struck.

Views on how long data should be stored ranged from the time it takes to process it (i.e. a few minutes) to six years (because most court cases are brought within this timeframe). Some participants suggested it was kept as long as feasible, while others suggested just until any auditing is completed, with a specified frequency for audits to take place. One group suggested that the AI scribe company might only keep the data for the time it took to process, but that the NHS should keep a local copy for a longer period.

"The data should be kept as long as feasible."

"I'm thinking that at least the audio from the scribe needs to be kept for at least a minimum of 24 hours in case the doctor needs to refer back to it."

"I would say 30 days, because at the end of the day, it's got to get processed, it's got to get checked. And if it gets deleted too quickly, you're in danger of that."

Keep data in the UK

Similarly, groups made different assumptions about where the data would be more secure. Most were clear that they wanted all data to be kept in the UK and were nervous about the use of cloud-based solutions unless they had assurance that companies would not be able to take the data into the United States. They specified that just having an office in the UK was not sufficient, and that the data must also be physically stored in the UK.

Participants mentioned three concerns about data going overseas; firstly the risk that it could be hacked in transit, secondly the risk that access could be cut off, and thirdly the perception it could reduce the NHS's ability to limit the uses of the data to prevent it being used for commercial purposes. The use of NHS data for commercial purposes would often be spoken about in the same sentence as the risk of hacking or data loss, reflecting the high level of concern about this. Participants had different views about whether training an AI scribe would be considered a commercial purpose that they were comfortable with.

"…avoid leaks or breaches or use for commercial purposes."

> *"It was saying in the fact file that patient data isn't used to train [AI scribes]… But how do they get better was the question. And is that not a resource that is really valuable?"*

It should be noted that storing the data in the UK is different from data access by trusted parties to the data for research purposes. Participants are keen on international collaboration and to improve the diversity of the data for research purposes. As such they felt that enabling access for international collaboration and research was a potentially important use which shouldn't be negated by their desire for safe storage of the data in the UK.

> *"I can see this is valuable data for research. You could think about it for ensuring the data is drawn from a diversity of people and we could have collaborative research agreements with other countries."*

Ensure resilience

As long as the data stayed within the UK, most participants were open to it leaving the building in which it was collected in order for it to be processed, assuming the data was transferred and stored securely. However, some also wanted a local back-up to provide resilience, and business continuity plans to ensure that a cyber-attack would not impact on NHS services.

> *"Because it is technology and technology is bound to fail, what happens, what happens when it fails?"*

One group also discussed what would happen if AI scribes were being used by healthcare professionals outside of healthcare settings – for example in care homes or in the community – and how they could ensure data was safely transferred in those settings.

> *"We just need to be careful, I think in the current environment, we've already been held hostage to energy, sort of like, we'll switch this off from that, what you don't want is our health data."*

Some people trusted offsite NHS servers more than third-party providers. Others were not sure what happens at the moment, but felt that they had not had problems with the system as it is and therefore thought that current rules should be maintained. One concern about third-parties was that they could go bankrupt and questions about what would happen to NHS data in that scenario, especially if staff were tempted to sell the data.

> *"I don't think just because it's AI and it may be run by American companies, all of a sudden American companies get access to British people, like medical data I think it should remain the same policies that we've always kept for like safety and things like that."*

Some participants raised questions about whether other public services, such as the police, could also access healthcare records. It was not clear whether this concern related specifically to the use of AI scribes and the potential for third party providers to have access to the data which they could then share, or whether it was a general concern about how the NHS handles sensitive data such as abuse or illegal behaviours.

Other issues

Other issues beyond the specific use case of AI scribes included:

- The importance of keeping data security measures up to date, as they recognised that risks and mitigations are constantly evolving.
- Balancing access and security, to ensure that anyone responsible for patient care could access what they needed to keep that patient safe.
- Whether large private sector companies could be trusted to host NHS data securely and without using it for their own purposes, and more general concerns about ensuring that commercial companies could not use their NHS data for profit.
- Whether patients could become responsible for storing their own records, so that they can control it more closely. Who is the data owner (the NHS or the patient) and does the patient have a right to be forgotten and for the data the AI has to be destroyed?
- The importance of the NHS providing a hard copy of a patient's data to them on request.

4.3 AI quality and accuracy

Many of participant's concerns about the use of AI scribes in the NHS related to quality and accuracy, alongside concerns about keeping the data secure. In the specialist sessions they were told about potential risks of using AI, including hallucination, and this was a particular cause for concern. Such concerns covered range of different topics and included the following considerations:

- Healthcare professionals using AI scribes should ultimately be responsible;
- The notes and possibly transcripts should be reviewed rapidly, definitely by the healthcare professional and potentially by the patient too. Patients should always be able to dispute the content of their notes;
- Participants have expectations around how AI should perform and wanted safeguards in place for known issues;
- Keeping records and ensuring spot checks to audit for accuracy is also important.

Healthcare professionals using AI scribes should ultimately be responsible

Participants wanted their health records to be accurate, no matter how they are generated. They were concerned about the negative consequences that could occur if this was not the case.

> *"Patients have got a right to expect an accurate reflection of what's It's been said"*

Most participants thought that ultimately the healthcare professional using the AI scribe would have to be responsible for the quality of the notes generated, not least as they would have information that might not be in the audio transcript. Participants felt it was important that the AI scribe produced a high quality and accurate note as otherwise they could not see what value it would add, but thought that the human would be accountable.

> *"I'm assuming that the NHS or healthcare provider are taking 100% ownership of the data being accurate and not the AI platform that they're using… They're the ones who want to use it, so they have to work with data."*

"So it's a GP involved and the GP has to go through the nodes and confirm and then put it in the system hasn't it? So the GP could be at fault as well if he's not corrected anything that is wrong on there."

They thought that companies producing AI scribes would not take responsibility, and did not think it would be realistic to require this, although they did think it was important that companies ensure their AI scribes produce acceptable quality outputs.

"I don't think it should be on the AI companies because they don't control how it's being used."

They recognised that requiring healthcare professionals to do this would potentially reduce the benefits in terms of saving time, but felt that it should be non-negotiable as they wanted to be able to hold a human to account if there were any errors.

Reviewing the record

Most suggested that the summary notes in particular should be created and reviewed as quickly as possible, and ideally between patients. Some wanted the healthcare professional to take their own notes to compare against the AI scribe, while others thought the transcript or the audio recording would be helpful.

"I just think that rather than them making the notes, I think that the access they have to the audio should increase. Sorry, the time that they have after the session should increase, maybe 24 hours or whatever, so they can refer back to it if the AI has made errors."

They discussed

- Who should review the record?
- What exactly needs to be reviewed?

Who reviews the record?

Participants had different views about when and how the AI notes should be reviewed. Some people wanted the healthcare professional to spend time with the patient reviewing what was captured immediately after the discussion, so that any errors could be quickly identified and corrected. Others thought this should be offered to the patient, or was only necessary for more sensitive or important appointments.

"It's their appointment, they might remember something that the doctor might not, or the scribe might not have picked up, so it's best to consult the patient while they're still there."

"Some people might not want to actually leave the surgery until they've seen it. To know that they're happy with what's been done and that it's accurate."

Other people thought checking with the patient would take too long, especially if they also had to review a full transcript, and were unsure whether it would add value. They still wanted their healthcare professional to check the notes before they were added to their record, but did not necessarily want to be involved in that process. Some also were unsure whether the healthcare professional needed to read the full transcript or just the note as they were worried a transcript would add more time.

> *"Probably the one thing that stood out for me was the accuracy of the data that's recorded by the scribe, and the extent to which the healthcare professional has to check every single part of that. Is there that much of a time-saving at the end of the day if you're able to do that really accurately?"*

Participants did not think that another human, such as an administrator, should do the checks as they were not in the room for the original consultation.

What needs to be reviewed?

Participants were less clear whether the full transcript would need to be checked as people had different views on its purpose. For those thinking it would be a lasting record of what was discussed - so that patients could prove what they said in an appointment - it was important the transcript was also correct, or that the audio was maintained. However, others were mainly concerned about the accuracy of the notes which they thought would mainly be influenced by how quickly they were finalised.

> *"Because if you are seeing a doctor and it is going to take a week for them to write up that information, they're going to see another 30 patients per day. So by the time they get to you, you're like the 200th patient they've seen. So they might not even remember."*

One person asked if there would be a revision log so that changes to notes or transcripts could be identified.

Patient access and dispute process

Participants thought that patients should be able to see their own health record. This extended further than just seeing the data being created by AI scribes. Some participants discussed how they had tried to access their data in the past with mixed success. The perceived increased risk of errors as a result of AI scribes meant that having visibility of what was recorded was considered to be particularly important in this context.

Some assumed the transcript or notes would be available on their NHS app or via email after the appointment. One group suggested printed out copies should also be available.

> *"It's like when you go to a shop these days, now I'm equating healthcare to a shop, but sometimes you go to a shop and you're given the option, like, do you want a physical receipt? Do you want an electronic receipt sent to you after? And that's kind of like an electronic receipt that's being sent to you after your visit."*

Some participants wanted assurance there was a 'dispute process' they would have recourse to if they disagreed with something in their record. Specifically, some were concerned about the AI scribe summarising and adding labels as a result. For example, if someone says they drink alcohol regularly the AI might summarise this as them being an alcoholic. They thought it was important that these sorts of labels were not applied automatically as that could affect how they were treated by other people reading the record.

> *"What if AI scribe summarises, because you say you drink 25 bottles of wine a day, it says, so-and-so is an alcoholic… it doesn't have the right to say that…But then it says you're an addict, and then that affects how you get treated."*

How good is 'good enough'?

People had different concerns about how AI scribes would perform and specifically talked about:

- Accuracy rates
- Capturing everything important
- Minimising hallucinations
- Handling difficult scenarios

Pre-agreed accuracy rates

Some groups discussed the importance of monitoring the accuracy of the AI scribes. They suggested that it would be important to measure the 'accuracy rate' of an AI scribe and as discussed in 4.1 they wanted to ensure an agreed level of accuracy was achieved.

> *"The only question I've got is, is the accuracy being monitored constantly?"*
>
> *"How do we know that it works properly? Is it 10% that gets wrong, 20%? Is there any sort of studies or examples that have tested how often it's incorrect?"*
>
> *"It's either got to be as it is now, ideally better, but as it is now, certainly no worse than it is now."*

Some participants reflected that they had higher expectations of AI scribes than they did for humans, because they were more willing to accept that humans can make mistakes. While they were not necessarily looking for 100% accuracy, they did expect it to be high given how high they perceived the stakes to be if a mistake was made.

> *"I can forgive a human for making a mistake. I can't forgive something like this… I understand that no human is perfect whereas this, they're trying to be more efficient so then obviously they're not claiming to be perfect but if it's not near enough perfect then why are they actually rolling it out already because this is actually real people's health that is being impacted here. It's not a small thing. The human can say sorry."*

Capturing everything important

Participants also expressed concerns that after producing a transcript the AI scribe would be summarising their discussions and potentially could miss out important information, either because it was not included in the transcript as it was non-verbal, or because the AI did not consider it to be important. They wanted assurance that the process of using an AI scribe would enable these to be added.

Examples included comments about the weather which could be relevant in some contexts but not others, or non-verbal signals such as how a patient looked which the healthcare professional might not want to speak out loud to the patient.

> *"Like in the example it greyed out stuff about the weather, but that could have a real impact on them. Someone might have seasonal… does the scribe know that the weather is actually important"*
>
> *"The AI scribe is taken down what it hears, but when does the doctor, because the doctor has to write down what he or she sees, you know, oh, they have a pallid complexion or the light's gone from their eyes or, you know, especially if it's*

a mental health issue, you know, so the doctor's going to have to write that down."

Similarly, they discussed that different people have different communication styles, not everyone might speak directly or clearly articulate their needs. As such they felt that healthcare professionals often may 'read between the lines' and were not sure how the AI scribe would be able to do that.

"If they're on the spectrum, yeah, neurodiverse people, like talk about things in a slightly different way that the doctor can read between the lines, but the scribe is not going to be able to do that."

One group discussed what would happen if a person was really softly spoken so the AI scribe did not accurately pick up and transcribe what they said. Similarly, they discussed the risk of a louder carer or advocate having their views captured over and above those of the patient.

"I think some of the biases about how people are treated, or maybe the way questions might be phrased, that's down to the GP professionals because the AI scribe is only transcribing what it hears, but I think the issue is what does it hear and doesn't it hear?"

Minimising hallucinations

Participants were not comfortable with the potential for something that they never said, or that was not true, to be included in their NHS record. Some suggested that the technology should be designed to minimise these risks, by flagging where it was not sure about something rather than guessing confidently. They were unsure whether it would be better for an AI scribe to interrupt a conversation to clarify, or whether any uncertainty should be flagged for review later – especially for longer consultations.

"Would there not be an option for it to say, didn't get that bit?"

However, they also noted that the AI scribe might not realise when it had misheard. As outlined above (section 4.1), participants felt that the healthcare professional should ultimately be responsible for the quality of the record, including removing any hallucinations.

Ability to handle different scenarios

Participants wanted reassurance that the AI scribe would continue to perform well in different scenarios. For example, if there was more than one person attending the appointment, or in a noisy setting. They discussed scenarios such as a busy hospital nurse moving between patients in an emergency, and how the AI scribe might handle that without confusing the different cases or notes.

"In the summaries of the notes that we've read, it kind of all just said, patient, you've said this. When it said the patient, it was like, you are feeling like this, you've said this, but in the case that we were shown with two people speaking, somebody else is saying that. So it might not be accurate in the case of just, you know, two people going in together that's not necessarily a trustworthy source."

"Just from the nurses' point of view, one nurse has 18 patients over a 12-hour shift and they're in and out of rooms constantly, so what if they don't stop it?"

Improving over time

Participants understood that while AI is trained on a dataset in the beginning, it can also iterate and improve over time. They were keen to ensure that AI scribes had this functionality, so that as the technology becomes exposed to new words, accents and dialects it could learn from them and improve.

> *"There's words that it won't understand, it won't know, you know, new words that come out, there's acronyms and shortened words. Like, say, people from different places use the same word or different words for the same thing. It might not pick it up the first few times, which could take time checking that, but then does it learn?"*

Keeping records, auditing and feedback loops

Participants discussed different expectations for what data would be kept and who would review it. Some groups wanted the full audio to be kept as they did not trust the transcript to be accurate. They wanted independent random spot checking of the data to assure that each healthcare professional was doing their assurance correctly, and that the notes were a good reflection of the discussion. They suggested ideally this would be done against the audio recording and that any errors should be followed up.

> *"Each individual GP checks the individual transaction, but then there's also someone who looks at they're kind of dips in or checks."*

> *"I think to do an effective audit, you'd have to have the audio."*

They reflected that this could change over time, so that as healthcare professionals and the public got more familiar with AI scribes, and if they were assured that they performed to a high level of accuracy, then the spot checks might be reduced. However, others cautioned against complacency, noting that just because the tool was becoming more accurate would not mean that it was not making any mistakes. This latter group wanted checks within the programming to ensure that the healthcare professional was not just clicking yes without giving it any thought. Another group raised concerns about confirmation bias and whether healthcare professionals would have enough time to spot errors successfully.

> *"I think it should be checked a lot more frequently because in the initial start-up, that's where there's going to be more errors. But as it becomes, as technology becomes better, everyone gets trained to work better on it, knows what to look for."*

> *"If you come across these puzzles, you know, where you've got to read something and find out the odd one out, or miss spelling somewhere, you can go through it and it works all right. And then read it again and you think, oh yeah, that's wrong. Doctors aren't going to have time to do that."*

One group also discussed passing information back to the NHS and the tech company when errors occurred, so that they could learn from them. However, this group did not discuss how they felt about their health data being used for commercial purposes which was an issue raised in other groups.

> *"An accurate scribed transcript should be reported to the tech companies and NHS every time. So it proves the technology's not working, and the NHS need to be aware that that company has got an issue with this."*

4.4 AI fairness and bias

Participants were clear that, as a minimum AI scribes should not introduce more bias into healthcare provision, and that ideally the technology would be designed to reduce bias. However, they were not always clear how this could work in practice.

> *"One of the hopes is sort of like trying to improve health inequality, and I can't see it, not because I'm negative, I just can't visualise it, but how AI scribes can improve that, because if they can, then that's something we should be going, you know, okay, that's good."*

A lot of the conversations focussed on regional fairness and how AI scribes would handle different accents and dialects. Discussions about people with protected characteristics mainly focussed on race and ethnicity, although participants also discussed other groups who might be disadvantaged including women, victim/survivors of domestic abuse, people 'in the grips of addiction', or older people and others who were more nervous about the use of technology. One group also discussed speech impediments and people who use sign language and how the use of Ai scribes would impact on their experiences.

> *"By, like, default, some people will be discriminated against and they won't be able to use this AI scribe to help them in the consultation."*

Participants recognised that bias is likely to be introduced by the healthcare professional themselves, but were concerned that AI scribes could magnify these biases rather than address them, especially if an AI scribe was also providing diagnostic advice or support.

> *"There are already so many GPs that have a higher standard of care just because the doctors are better than humans. My GP sucks. It's depressing. It's human nature that some are going to be better than others just because of the doctors themselves. It would be even less fair if only some practitioners used [AI scribes]."*

Handling diversity in accents and dialects

A significant concern was how AI scribes would handle regional accents and dialects, including but not limited to considering the experiences of people speaking English as a second language.

> *"If it can't detect a variety of dialects of speech, like different speeches, they need to rectify that before it goes out to mass use…I think what is the point of using it if you're not going to be able to reach... It's not fair to people who haven't got a London accent."*

People described their personal frustrations with voice recognition software in their everyday lives and were concerned about the implications for AI scribes. They thought that some people might opt out of using AI scribes due to a fear that they would not be understood. They also noted that some healthcare professionals also have strong accents so might have difficulties using an AI scribe.

> *"You don't want to be going into your GP. And this is way more important than, than asking like Alexa to put a song on, do you know what I mean? Of course you do want to be understood, but you don't want to be thinking about it so much that*

you are [participant changes accent] 'talking like this' [participant returns to normal accent] so that the AI scribe can pick you up, you know?"

Some suggested it should mean that doctors could always have the option to revert to taking their own notes, but others emphasised the importance of ensuring the AI was trained on diverse voices as, if the technology was proved to be beneficial, it should be available to support everyone. They also thought it could be awkward for a healthcare professional to say that they were not using the AI scribe because of a person's accent.

"The doctor or the medical person should have the option to say, I know your accent's really strong... I'm going to turn the AI off and we're going to go back to the drawing board."

"This is where accuracy and fairness overlap... You can't have one without the other, so it's really unfair if it's inaccurate."

Some participants with stronger accents expressed concern that they would feel obliged to think carefully about how they were speaking so that the AI scribe understood them, and that this might detract from their ability to communicate everything they needed to.

"If you're focusing on, on trying to like articulate better, then you're going to like forget some information."

Others were concerned that the healthcare professional could be so focused on ensuring that the AI scribe was capturing the information needed that the quality of the consultation would diminish, or it would take a lot of time afterwards to clean up the notes.

"I've got a friend who's got a stutter, and it's quite a bad stutter, and I just wonder how on earth AI will cope with that? And, you know, I've got a few friends who've got very heavy accents, and I just think they'll have to cope. There'll be all sorts going on, and then it'll be spending, the doctor, the clinician, will be spending more time, I would imagine, going back over the notes."

Additionally, some reflected that when people talk about more embarrassing or personal issues with their healthcare professional they will often use slang terms which the AI might not recognise or capture correctly. They also discussed that sometimes different generations or communities use language differently. They realised that this could be a challenge for the AI scribe, and also for the healthcare professional if they were not from that community.

"Bear in mind as well that if you get a lot of youth and stuff going to see their GP, they have their own language now. Yeah. Will an AI scribe be able to understand what they are talking about, because their words are very different?"

One group also discussed the potential for discrimination against people who were not very good at expressing or explaining themselves. While they recognised this would already be an issue in healthcare, they felt that the use of an AI scribe that was reliant on recording what was discussed could exacerbate inequities.

"I wonder what bias they're already experiencing and will be experiencing more because maybe they can't articulate themselves in what might be seen as the correct way."

On a more positive note, some participants hoped that AI scribes might be able to support real-time translation between languages, enabling some patients who did not speak English to have improved access to healthcare.

National fairness and consistency

Although participants had mixed views about the benefits of AI scribes, they nonetheless were reluctant to see any part of the UK left behind in the rollout. They were uncomfortable with the idea of a 'postcode lottery' where some areas would have AI scribes and others would not.

> *"It has to be guaranteed that everybody gets it, if you go to a doctor and everybody else is using an AI, you should have the same facility that everybody else does and it shouldn't be different between different doctors or different regions or different whatever."*

Similarly, some participants suggested that all healthcare professionals should be required to use AI scribes and offer an opt-out, so that patients did not take into consideration AI scribe use as a reason for using one professional or another.

Reducing potential bias

In terms of what this would mean for AI scribes, participants talked about the importance of early consideration of potential inequalities and ensuring that the technology was developed by a diverse group of people and trained using diverse data.

> *"When they were training the AI, like using different people from different accents. And also you can't get everyone, every single accent. But they should try. I think that's really important. Because I think, people of colour, especially that they already experience enough discrimination."*

> *"I think they need people of all different gender, like, race, religion, whatever might be relevant, to test and program the AI, really."*

They expressed particular concerns about rare conditions or medications, and the importance of ensuring that the AI scribe would be familiar with the terminology associated with these to minimise the risk of errors occurring.

> *"Someone wrote on the group discussion about a lot of medicines sounding similar, and I never thought that. I thought, you know, imagine if someone got, issued the wrong prescription"*

One group discussed an example of an online AI being encouraged to become more racist over time, and wanted safeguards to ensure that this would not happen to AI scribes. They suggested that any user training should include raising awareness of the risk of bias occurring and how to handle it.

> *"Maybe there should be guidelines for how clinicians interact with it. Because you'd hope that wouldn't be an issue in a clinical setting, but if there's guidelines for people, for clinicians on how it works, and anything they maybe shouldn't say, potentially, or ways to use it..."*

The importance of monitoring

Some participants discussed the importance of monitoring and evaluating the use of AI scribes to identify and address bias. They wanted the NHS to consult different patient groups and their representatives so that any issues would be identified and could be addressed.

> *"It should be checked if people, you know, how it's working for people of certain races, certain genders, whether they're trans, different religions, pregnancy, disability, and so forth."*

They emphasised the importance of providing healthcare professionals with training to support their understanding of how bias could occur and how to mitigate against it.

> *"Known issues of bias should be recorded and healthcare professionals made aware so they know what to watch out for."*

> *"So it will be the responsibility of the GP. They know their patient. So yes, you can give training in learning disabilities, but it is, it will be up to the GP to apply that where it's necessary."*

One group also suggested looking for evidence of whether the use of AI scribes was putting people off returning to their GP for example, by looking at whether some people had increased A&E visits after their GP started using an AI scribe.

Other concerns

- One participant mentioned that her family's NHS GP speaks to her parents in a language other than English. They were not sure how an AI scribe could be used in this context and whether it could handle other languages. Others in their group then asked whether the AI scribes would be able to capture conversations in the UK's national languages including Welsh and Gaelic.

"If you're going to a doctor's, in Birmingham, because that's where I grew up initially, some of the doctors do speak different languages but if AI is trained on English, then how is it including other languages and interpreters and things like that?"

4.5 Awareness and consent

"Consent" can mean different things to different people. In common understanding it simply means giving permission for something to happen. Doctors and other health workers have a professional duty to seek patient consent in some situations, such as before examinations or treatments. Under data protection law, consent is one of several ways an organisation can legally process personal information (though, for data processing this is often not the most appropriate basis in healthcare contexts). In this section, participants may mean any of these.

The term was used frequently when participants discussed AI scribes, and often in ways that do not neatly map onto specific legal or professional obligations. When participants said they wanted to consent, or that implied consent was insufficient, they were most plausibly asserting an interest in being genuinely informed, that transparency is fulfilled, so they have a meaningful opt-out. These are concerns that a well-implemented transparency obligation may address more effectively than a formal consent process.

As outlined in section 2.1, there was very low awareness of the existing use of AI scribes in the NHS and participants were not happy about this. Some felt that the absence of transparency suggested that the NHS were trying to hide something, and felt that could undermine patient trust.

> *"Have they factored in the potential backlash when the public finds out that they've been using it for all this time anyway?"*

Many participants thought it was really important that patients were told the technology was being used and, as a minimum, were explicitly offered the opportunity to opt out. Some wanted to go further and suggested that healthcare professionals should secure patient consent before they used an AI scribe, although others thought this would be too time consuming. However, they did think that healthcare professionals should be ready to explain how AI scribes capture and store data and how long it is kept if they are asked.

> *"People can't consent. They don't know what they're consenting to."*

The rest of this section explores:

- The importance of raising awareness in different ways.
- Opt-out and consent.
- 'Flexible consent' options so that patients can opt out of AI scribe use for particularly sensitive conditions.
- How to streamline the process of opting out and back in.
- What to do when a patient cannot consent and other unresolved questions.

The importance of transparency and raising awareness in different ways

Participants discussed different ways to raise awareness including:

- A national awareness campaign (advertising using television, radio, online including YouTube, social media, posters on public transport etc);
- Information on NHS websites, leaflets and posters;
- Clear signage in NHS settings where AI scribes are used;
- Potentially a message about it which is shown when booking an appointment.

They recommended taking a segmented approach to ensure that the message is received by everyone, recognising that different people will be reached in different ways and believing that it is important that everyone is informed. They also reflected that different people might need different information. Some people wanted to be able to access detailed information, such as where the data was being processed and stored, and how long it would be kept. Others thought that the information they needed would be a high-level summary of the benefits and any potential risks.

> *"Also, with the consent, is it going to be clear that I'm consenting to the data centre within the hospital or the cloud service? Because, you know, I'd need to know."*

Overall, participants emphasised the importance of providing balanced information, including the benefits and the risks of using AI scribes, and the environmental costs, so that people can make an informed decision.

"It needs to tell you the cons as well, so you're making an informed choice, because it's that idea of informed consent, you're not just making a blase, like yes or no."

Participants did not necessarily think they would personally want to opt out, or that people should be encouraged to do so, but they did want people to be given a real choice. They were concerned that if people felt information was being withheld, or if they did not understand the safeguards, then they might take a cautious position and opt out. Some groups struggled to identify patient benefits (see section 3.2), and thought it would be important to identify and communicate benefits which would resonate with patients, beyond assertions it might improve efficiency.

"…there should be some kind of public awareness campaign to say, 'oh, great news, this is this new thing we've come up with that we're doing to help assist patients. Here is how it works'. Three short bullet points."

Due to some people's negative views of AI specifically, one group suggested that using the acronym AVT (i.e, Ambient Voice Technology) might be better as although people would not immediately know what it was, they would also not jump to negative conclusions associated with the use of AI.

Most believe that implied consent is not sufficient

The specialists explained to participants that currently AI scribes are being used in the NHS without explicit patient consent. Instead, they were told that there is an assumption of implicit consent, and that patients can opt out if they choose. As outlined above, this made many participants uncomfortable.

"I'm sure none of us who've had a GP appointment in the last six months have been said, oh, by the way, I'm recording this. So, where does consent come in? When does consent come in?"

A few participants disagreed and thought that implied consent was acceptable. They suggested that, just as the move to electronic records was assumed and not done with patient consent, it could be appropriate for the medical professional to make the decision in the best interests of their patient.

"The doctor never said do you mind if I use the computer a few years ago, did they? Yeah, exactly, it's the same as that. Do you mind if we put notes on your medical records? There's so many things that they already do that they don't ask for."

"What are people scared of? Why do you think they need to give consent? What are people worried about?... What's the harm in it being recorded every time? Some people don't want it do they? Some people are technophobes."

However, this was a minority viewpoint and most people disagreed.

"Implied consent should not be a thing. Yeah, that's a huge one. That's my biggest thing. Why is that even a concept that's being discussed? It should just be not a thing. Think about that. It's such sensitive information."

Their main concern was that low awareness means that people will not opt out because they do not know the technology is used, not because they have no concerns about it.

“We don't have a lot of informed consent. Because we don't understand a lot of what's being told us.”

Some also voiced a concern that patients may feel that they had no choice except to agree to the use of an AI scribe, because they might worry that access to treatment would be more limited if they refused.

“Somebody says, well, do you need, we're going to use an AI scribe, or something, you might be going through your mind, like, well, if I say no, do I get queued?”

Participants recognised that when a patient attends an NHS appointment it might not be the best time for them to learn about AI scribes. Specifically, they are likely to have health concerns which are likely to be more immediate than their views on data flows. Some also did not think it was the best use of the time of healthcare professionals to explain the technology in detail. As such, most did not advocate for an opt-in process with a full consent form at the time of treatment.

“How, if somebody's sat in front of a health professional who's in crisis, how on earth do they explain all this stuff about the scribe? Do they even tell them?”

However, most participants did not feel that this would justify the use of AI scribes without consent. Rather they wanted the NHS to proactively communicate about AI scribes so that if people wanted to opt out they could do so at a time that was convenient, not when they were in the middle of a crisis.

“I think if they're worried about the time to explain, then that's something that they need to consider before they roll [it out].”

Opt-out rather than opt-in

On balance most participants thought an opt-out process, with an awareness raising campaign, would be sufficient. They compared it to the change to the assumptions around organ donation and thought that this would be acceptable as long as there was a clear process. They reflected that a lot of people might not mind, and that the default could therefore be whatever the NHS preferred, as long as there was a clear opportunity to opt out. Some groups considered the alternative of having either a verbal contract or even a written document to indicate a patient had opted-in, but most decided this would be too time consuming and was probably unnecessary.

“I think it was you that said about like, whether you actually understand what you're consenting to, because you have to like, if you're like asked, can you sign a consent form, you have to like, read it really quickly, and it's like, I'm not going to take in all that information. And then that's not really saving time.”

One group thought it was important for people to have time to opt-out, so they proposed that a date when the system would switch from opt-in to opt-out should be widely publicised. Before that date they thought that consent should be proactively sought, to ensure people understood the technology is being used. They suggested ways to ensure this did not take up too much of the medical professional’s time, for example by raising it when people booked appointments.

“I think when you phone up or however way you make an appointment, if it's online or whatever nowadays, if the receptionist at the surgery hasn't had your

answer, then maybe that's an opportunity to bring it up, you know, bring it up to them, and then at the appointment, you have the opportunity to opt out."

Offer flexible consent

Participants also reflected that consent might depend on the specific reason a person has visited the NHS. For example, they might be comfortable with their consultation about a broken leg using an AI scribe, but might feel differently about a discussion about a very personal issue.

> *"You might be okay with one problem being discussed, like a broken leg, but then if it's a more personal thing, you might not want that, do you know what I mean? So you can consent to one thing, but you might not consent to another situation."*

> *"For example, if I go to the doctor about a cold, I don't really mind. I would consent to that being shared. If I go about mental health or miscarriage, anything like that. Sexual assault, yeah, anything like that, I don't think I would want that to be scribed like that."*

Consequently, some people wanted to be offered the choice at the start of each consultation, so that even if they generally agreed to the use of an AI scribe, they would still have a choice. Others suggested that people could choose to opt out of use of AI scribes for particular purposes before they arose, so that their record noted that they did not want AI scribes used for notes about a particular topic.

> *"The option should be there, that if there is a particular thing that you're very concerned about, and say, look, yes, I did say yes to everything, but on this one particular one, I would still want to say no, I don't want it done."*

By offering a case-by-case opportunity to not use the AI scribe they thought it would improve uptake overall, as people would be less likely to feel the need to say no in case a situation arose in future where they might feel uncomfortable.

> *"It's having the choice, being able to have the choice, rather than it just be assumed. Which is dangerous."*

Some participants also discussed how the healthcare professional themselves might make a decision that a topic was too sensitive, or not appropriate for the use of an AI scribe. As outlined above (section 3.3), they thought that this should be part of the training provided to AI scribe users.

> *"Medical staff should use their discretion… the doctor should be like, 'in this instance, we don't use it'."*

Streamlining the process of opting in / out

Participants believe that providing good information was vital and that opting back in should also be as easy as opting out so that people could change their minds.

> *"When you book an appointment, an automated message should inform you that if you use AI, you can opt out or you can change your mind, you can opt back in. And say it in a negative way so they don't do it automatically and make it clear that you're not using the AI in your diagnosis."*

They also proposed that a patient's decision to opt in or out should follow them throughout the NHS rather than having to state their preferences every time they interacted with a healthcare professional. They thought it should be clearly indicated on their record so that as soon as they walked into the room it was clear that they had opted out.

> *"You shouldn't have to repeat again and again at different stages, so if you see your physiotherapist or your nurse in the hospital or whatever, you don't have to keep giving your consent five times or ten times, just give it once and it sits on that computer."*

Some groups recognised that the need to raise awareness could reduce over time, as the technology becomes more familiar and people have time to adjust.

> *"We've been talking about the awareness now and the awareness in the future are going to be different and the consent process should be tailored for differing levels of awareness now and in the future."*

> *"I would expect explicit consent each time, at least for the first few months or so."*

Unresolved questions

Participants also asked a few questions which they did not have time to resolve:

- What to do when a patient cannot consent?
- What happens if a patient wants to change their record?
- Would people have access to the recordings?
- What if the technology changes?

What to do when a patient cannot consent?

Some groups also discussed what to do when a patient could not provide informed consent. For example, if they had learning disabilities and could not understand what they were consenting to. They did not resolve these questions but thought it was important for the NHS to give it due consideration.

> *"I work in a learning disabilities care home. All non-verbal. So how would consent work there? Because they're not actually talking to the doctor. It's the staff that talk to the doctor. But they wouldn't be able to give consent."*

What to do if a sensitive topic comes up when an AI scribe is turned on

Participants acknowledged that the healthcare professional might not know what a discussion was going to be about, and that it could be uncomfortable to stop a consultation part-way through to suggest that the AI scribe was turned off. Some suggested that this was a reason for healthcare professionals to always ask at the start of an appointment, but others thought that this would be too time consuming so the question was not resolved.

What happens if a patient wants to change their record?

Some people were conscious that they might say something during an appointment that they would prefer not to go onto their medical records for a number of reasons. This could include comments not directly relevant to their health. They were conscious that the AI scribe would be producing a full transcript which might or might not be saved (see section 3.2 and 3.3), and that they might want to remove some comments from this

record. Others were not sure whether this would be technically possible or thought it might take a lot of time to do and were uncertain of the value.

> *"Maybe later on in the conversation say, 'do you know what, I've just realised how that sounded'. Well, it's on there now, so unless he physically goes in and takes it all off it's gonna stay there."*

Would patients have access to the recordings?

A few people wanted to have access to the recordings made by the AI scribe, or the transcripts, so that they could refer back to them. This related to points made earlier (section 4.3) about wanting access to their own medical records.

> *"Can the patient say well I'd like to see what's actually been recorded they have that option so maybe it's do you consent to the ai recording you in the first place following by do you wish to see the transcript after."*

What if the technology changes?

One group discussed how AI scribes will change over time and the implications this could have for informed consent. They were unsure how the public could be updated about these changes, but thought it might be important as it could influence how they felt about the technology being used.

> *"So if there's something new that's happening in the AI, whether that's the data or in terms of it progressing, I think the patients always need to be aware of it. It goes back to informed consent, because if something changes within it, you need to be aware of it. But then how do you do that? Do you give everyone a leaflet?"*

5. Participant recommendations

The sessions built towards developing a patient's charter for AI scribes. The underlying assumptions made by participants were non-negotiable:

- The benefits to patients must outweigh the financial and environmental costs.
- Medical professionals must be trained to use AI scribes, including developing an understanding of the risks so they can mitigate against them.
- These recommendations relate to AI scribes producing notes, not undertaking any diagnostic role.

With these in mind they set out the following expectations, which they felt would build trust in the use of AI scribes.

5.1 Implied consent is not sufficient without awareness

Fundamentally, people were not comfortable with the idea that AI scribes could be used without patient knowledge or consent. Most were relatively comfortable with an opt-out rather than an opt-in scheme, but only if it was well publicised in a national campaign.

Some groups said that as the technology is new it is important that, while awareness is low, consent cannot be assumed and active consent should be sought at the first point of contact with the NHS. They suggested this could change over time as people learned more about the technology, but felt it was important while awareness is low.

However, while they thought that offering an easy route to opt-out was important, they also did not want to encourage people to do so unnecessarily. They thought it was important people understood the benefits and risks of opting out. One group also emphasised the importance of having an easy route to opt back in over time.

As a general rule, people thought you should be able to opt-out once and that this would automatically follow you across all different healthcare settings. However, some groups also suggested providing a flexible option so people could to opt-out for sensitive topics.

5.2 Patients are the priority

People were keen for risks associated with AI scribes to be mitigated, so that the process and impact of using AI scribes is no worse for patients overall, compared with the current process. They thought that there should be regular feedback from patients and clinicians to help continually improve the service.

Ultimately, they wanted to ensure that a patient leaving an appointment felt heard and understood, with clarity over the next steps for their care. They wanted assurance that if there was a conflict between what an AI scribe requires or the needs of a patient, that the patient needs would always take priority. They wanted assurances that opting out would not have a negative impact on the care that a patient received.

5.3 Governance to ensure AI scribes are 'just as safe'

There was limited awareness of current approaches to governance and data security within the NHS, but overall participants thought that these should be the minimum that is expected of AI scribes, with many wanting additional safeguards in place.

They wanted data to remain in the UK at all times, with laws to prevent it leaving the UK. They wanted transparency about who had access to the data and thought only those who needed to know should have access.

Participants agreed there should be regular security updates and investment in data security. They were concerned about hacking. Secure storage was expected, as with all data the NHS holds. They expected to see a robust cyber security framework around the use of AI scribes. Ultimately, people wanted clear accountability for errors or data leaks, with consequences and penalties for those responsible

Participants thought that having a national body responsible for the governance of AI scribes was important, with built in independent audits to check the accuracy of notes.

5.4 Clinicians responsible for ensuring quality & accuracy

Ensuring the accuracy of the information recorded was very important to participants. They wanted AI scribes to be at least as accurate, or ideally more so than the current approach to note-taking and thought that healthcare professionals should ultimately be responsible for ensuring this, potentially in collaboration with the patient. Specific concerns included identifying hallucinations, capturing non-verbal information

Participants thought it would be important for them to be offered the option to view a record of the AI summary after their appointment, for example through the NHS app or in hard copy if requested. They also wanted to be able to amend or correct it.

Groups thought that accuracy checks should happen every time an AI scribe is used, and some wanted an additional layer of checks so that systematic errors could be identified and addressed by AI companies and an independent auditor. They also suggested some quality assurance of the checking process could be built into AI scribe systems.

5.5 AI scribes should be available for everyone

People felt strongly that AI scribes should be available to all, with mitigations in place to prevent the technology from compounding inequalities. Several groups noted that AI scribes should be used everywhere, in every care setting, to avoid a postcode lottery.

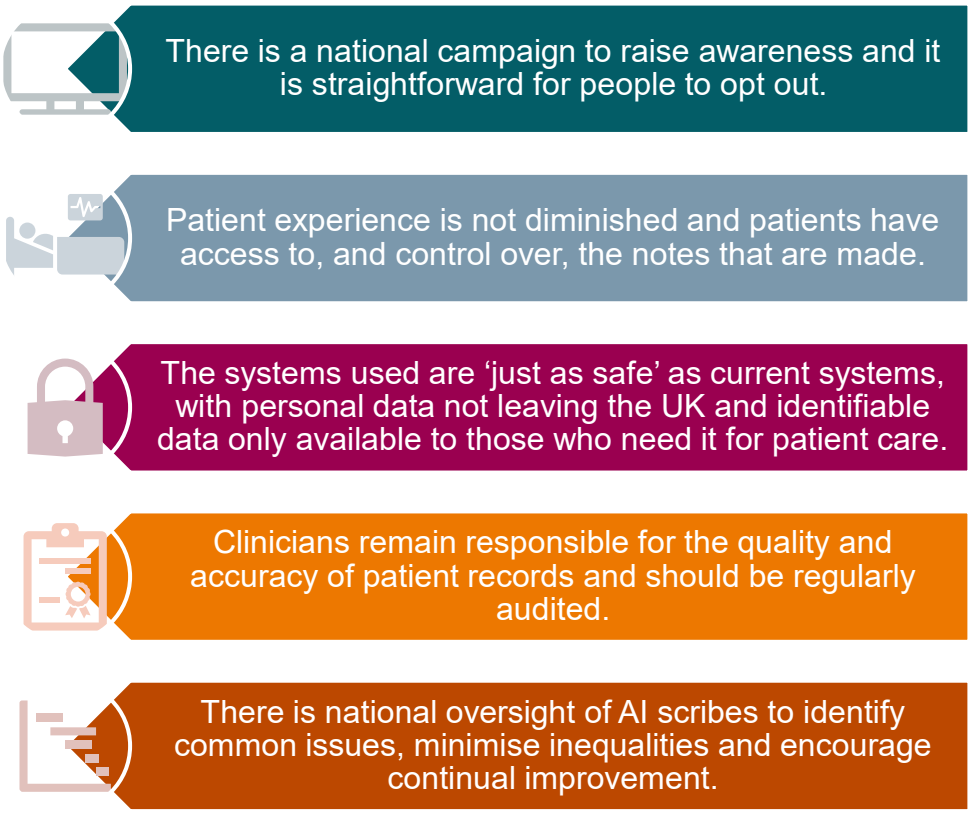
However, they also expected the healthcare professionals using AI scribes to be discerning, and only to use the technology when appropriate. A significant concern was how an AI scribe would handle accents and dialects (and languages) of patients and healthcare professionals. Most groups wanted AI to be trained on diverse datasets, containing many accents and dialects, and including medical terms before it was used in a clinical setting.

People thought that it was very important that the medical professionals using AI scribes are trained to understand potential risks of using the technology, including the risk of

bias. They suggested mandatory annual training to inform clinicians of what to watch out for. Then, ultimately, they wanted clinicians to use their common sense to determine whether the use of an AI scribe was appropriate for any given patient.

6. Conclusion – what good looks like

People are open to the use of AI scribes as long as a series of conditions are met. The first is that the benefits to the NHS and to patients specifically, must outweigh the costs, both in terms of money and time and potentially environmental impact. They wanted to see evidence that this was the case. If this can be proven then they are open to the use of AI scribes, as long as:



If these conditions are met then people are keen to see AI scribes rolled out across the UK as a whole, ensuring that there is not a postcode lottery where some services use AI scribes but others miss out.

> *"I feel that AI can be a huge step forward in the NHS. It would be vital that any conversation between patient and NHS Professional is very accurate and AI must reflect that."*

Acknowledgements

Hopkins Van Mil would like to thank all the participants who in March 2026 spent over a week exploring the topic of AI scribes in healthcare with such care, thoughtfulness and kindness. Their commitment to their responsibility of hearing the evidence, reviewing the information and forming their conclusions on a complex topic was impressive and profound.

We are grateful to the project team from our commissioners at Newton's Tree, particularly Robin Carpenter. Your expertise in the topic has been an essential guide to the process.

Thank you to members of the project's Governance Board, expertly chaired by Bernadette Cronin, Former Clinical Director, Clinical Imaging and Medical Physics, GSTT. The Board included Joseph Alderman, Ellie Asgari, Robin Carpenter, Octavia Field Reid, Stephen Griffiths, Louis Horsley, Alec Price-Forbes and Nell Thornton. They have each given impartial, informed advice, challenge and guidance on the complexities of AI scribes. The group worked hard to ensure the evidence, content, and stimulus materials presented to the public dialogue participants shared a range of perspectives and covered the key issues under review.

We are very grateful to all our specialist speakers. They generously gave their time to ensure that public dialogue participants heard evidence and a range of views on this, at times, sensitive topic.

AI Scribes in healthcare: summary findings report

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