Pharmacist AI Use & Impact Survey

Executive Summary

The increasing availability of artificial intelligence (AI) tools in healthcare, including pharmacy practice, has generated increasing interest in their potential applications, alongside recognition of the need for appropriate governance, training and safeguards. In this context, AI tools may include, for example, generative AI systems (such as large language model chatbots), clinical decision support technologies, workflow automation tools, transcription software, or data analysis applications. Within pharmacy practice, these technologies may be used to support activities such as administrative task management, information retrieval, educational content development, documentation support and professional learning.

The Royal College of Pharmacy (RCPharm) conducted a survey to explore awareness, use, perception and support needs relating to AI in pharmacy practice across Great Britain. The aim was to establish an initial evidence base to inform professional guidance, policy development and workplace support. A total of 141 responses were received.

Key findings:

- **98 respondents (69.5%)** reported awareness of AI tools being used in pharmacy practice.
- **90 respondents (63.8%)** reported current use AI-based tools in their work.
- Among users, AI was most commonly used for **streamlining administrative tasks**, followed by **educational material development** and **professional development / learning tools**.
- Among non-users, the main barriers were **concerns about accuracy or safety**, **unclear governance or accountability**, **lack of training or confidence**, and **lack of access to tools**.
- Across all respondents, **79 respondents (56.0%)** reported that AI had improved workflow efficiency to some extent, although this figure should be interpreted in the context of the survey's branching structure.
- Confidence in AI reliability was limited: only **4 respondents (2.8%)** reported being **very confident**, while **60 (42.6%)** reported being not **confident**.
- In total**, 104 respondents (73.8%)** indicated that AI gives them cause for concern.
- The most requested forms of support were **practical use cases**, **workplace guidance / policies**, and **online learning resources**.

Overall, the findings suggest both active engagement with, and cautious adoption of, AI tools within pharmacy practice. While use is already evident across a range of functions, concerns regarding safety, governance and reliability remains prominent. This highlights the need for structured professional guidance, clear governance frameworks and targeted education to support safe and effective implementation.

RCPharm will use these findings to inform the development of further guidance, identify priority areas for professional support, and shape future work on the role of AI in pharmacy practice.

1. Introduction

The use of AI tools in pharmacy practice is an emerging area of interest, with potential implications for clinical decision-making, workflow and professional responsibilities. AI technologies used within healthcare are diverse and may include generative AI tools (e.g., conversational AI systems capable of producing text responses), clinical decision support systems, workflow automation platforms, predictive analytics tools, speech-to-text transcription systems, and educational or knowledge-support applications. Some tools are designed specifically for healthcare settings, while others are general-purpose technologies that may be adapted for professional use.

Potential applications within pharmacy practice may include drafting administrative communications, summarising information, supporting professional education and training, assisting with documentation, facilitating information retrieval, or streamlining operational workflows. However, the increasing availability and accessibility of these technologies has also raised important questions regarding accuracy, reliability, data

governance, accountability, patient confidentiality, professional oversight and safe implementation within healthcare environments.

Despite growing interest in the use of AI across healthcare, there is currently limited structured insight into how these tools are being used by pharmacy professionals in practice, and what support and governance may be required to enable their safe and effective adoption. In response, RCPharm conducted an anonymous survey to examine the current use of AI within pharmacy practice across Great Britain. The survey targeted pharmacy professionals working in community, hospital and primary care settings, and forms part of a broader programme of work to inform professional guidance, policy development and workforce support in relation to AI.

This report presents findings from the Pharmacist AI Use and Impact Survey, which explored awareness, utilisation, perceptions and concerns regarding AI tools in pharmacy practice. The purpose of the survey was to understand how AI is currently being used across pharmacy settings, identify perceive potential benefits, and examine barriers to adoption. It also sought to determine the types of support required by pharmacy professionals, including education and training, practical guidance and governance frameworks.

The findings provide an initial evidence base to inform ongoing professional discussion, as well as future policy development, education strategies, and further research into the evolving role of AI in pharmacy practice.

2. Methodology

An online survey was conducted to explore awareness, use, perceived impact, concerns and support needs relating to AI tools in pharmacy-related practice. The survey collected both closed-response data and free-text responses, allowing quantitative summary of response patterns alongside thematic interpretation of open-text comments.

The survey targeted pharmacy professionals across all areas of practice in Great Britain. It was disseminated via social media and through RCPharm Expert Advisory Groups, whose members were asked to circulate the survey within their professional networks. The survey was open from 16 to 30 March.

Branching logic was applied to ensure respondents were directed to relevant questions based on prior responses. For example, respondents who reported current AI use were asked further questions about the types of tools used, access routes, frequency of use and challenges experienced, while non-users were asked about barriers to adoption. As a result, not all questions were answered by all respondents. Percentages should therefore be interpreted using the appropriates.

Survey responses were analysed descriptively, with counts and percentages reported for closed-response questions. Free-text responses were reviewed and coded into recurring themes. For questions inviting respondents to name specific AI tools, the figures reflect the frequency of mentions rather than mutually exclusive respondent categories.

3. Results

A total of 141 survey responses were received and included in the analysis.

3.1. Section 1: Demographics

Key summary: The respondent group was primarily made up of by hospital pharmacy professionals, who accounted for just over half of all responses (57%), with general practice forming the second largest group (17%). The sample was weighted towards mid-career and more experienced professionals, particularly those with 11–19 (31%) and 20–29 (25%) years of practice. In age terms, the largest group was between 35 and 44 years old (39%), followed by those between 25 and 34 years old (26%). Most respondents mainly worked in England (67%), with a substantial minority from Scotland (31%) and a small number from Wales (3%). Overall, the findings are most representative of a largely hospital-based, experienced pharmacy workforce.

Q1. What is your primary role? (n = 141)

Table 1 shows the distribution of respondents by primary role. Hospital pharmacy was the dominant group, with 80 of 141 respondents (56.7%). General practice was the second largest group, with 24 respondents (17.0%). All other role categories were much smaller, each accounting for less than 6% of the sample. This means the findings should be interpreted as being particularly reflective of hospital pharmacy perspectives.

Table 1. Primary role of survey respondents.

Role	Count	%
Hospital pharmacy	80	56.7%
General practice	24	17.0%
Commissioning organisation	8	5.7%
Other / free-text role	8	5.7%
Academia or education body	6	4.3%
Community pharmacy	3	2.1%
Government and other public bodies	3	2.1%
Mental health services	3	2.1%
Other primary care setting	3	2.1%
Professional bodies or regulators	2	1.4%
Pharmaceutical industry	1	0.7%

Q2. What stage of your career are you in? (n = 141)

Table 2 summarises respondents' career stage by years of practice. The sample was weighted towards experienced professionals: 43 respondents had 11–19 years of practice and 35 had 20–29 years of practice, together representing 78 respondents of the total sample (55.3%). A further 16 respondents had 30–39 years of practice. In contrast, only 16 respondents had five or fewer years of practice. This indicates that the survey largely captures the views of mid-career and senior pharmacy professionals.

Table 2. Career stage of survey respondents by years of practice.

Career stage	Count	%
11–19 years of practice	43	30.5%
20–29 years of practice	35	24.8%

Career stage	Count	%
6–10 years of practice	24	17.0%
30–39 years of practice	16	11.3%
3–5 years of practice	10	7.1%
0–2 years of practice	6	4.3%
40–49 years of practice	6	4.3%
50 years of practice +	1	0.7%

Q3. What is your age? (n = 141)

Table 3 presents the age profile of respondents. The largest age group was 35–44 years, with 55 respondents, representing 39.0% of the sample. This was followed by the 25–34 age group, with 37 respondents (26.2%). Together, respondents aged 25–44 accounted for 92 of 141 responses of the sample (65.2%). This suggests that the findings mainly reflect the views of working-age professionals in early to mid-career stages, alongside a smaller proportion of older respondents.

Table 3. Age profile of survey respondents.

Age band	Count	%
35–44	55	39.0%
25–34	37	26.2%
45–54	25	17.7%
55–64	18	12.8%
≥65	3	2.1%
22–24	2	1.4%
18–21	1	0.7%

Q4. Where do you mainly practice? (n = 141)

Table 4 shows where respondents mainly practise across the UK nations represented in the survey. Most respondents practised in England, with 94 of 141 respondents, representing 66.7% of the sample. Scotland accounted for 43 respondents (30.5%), while Wales accounted for 4 respondents (2.8%). No respondents reported mainly practising in Northern Ireland. The findings should therefore be interpreted primarily as reflecting views from England and Scotland.

Table 4. Main country of practice among survey respondents.

Nation	Count	%
England	94	66.7%
Scotland	43	30.5%
Wales	4	2.8%

3.2. Section 2: Awareness & Adoption

Key summary: Awareness of AI in pharmacy practice was relatively high, with around seven in ten respondents saying they were aware of AI tools being used in practice. Nearly two-thirds said they were currently using AI-based tools in their work. Among users, AI was mainly being used for administrative support, developing educational materials, and professional learning, rather than advanced predictive or autonomous clinical tasks. Free-text responses suggested that Copilot and ChatGPT were the most commonly used tools. Despite the uptake, current users still reported barriers, particularly concerns about accuracy and clinical safety, lack of integration with workplace systems, information governance restrictions, and insufficient guidance or training. Among non-users, the main reasons for non-adoption were concerns about accuracy or safety, unclear governance or accountability, lack of training or confidence, and lack of access. Overall, the findings suggest that AI adoption is already significant but remains cautious and uneven.

Q5. Are you aware of AI tools being used in pharmacy practice? (n = 141)

Table 5 summarises respondents' awareness of AI tools being used in pharmacy practice. Awareness was relatively high, with 98 of 141 respondents (69.5%) reporting that they were aware of AI tools being used in practice. By comparison, 24 respondents (17.0%) were not aware, and 19 respondents (13.5%) were unsure. This suggests that AI is already visible to a substantial proportion of the pharmacy workforce, although nearly one-third of respondents either lacked awareness or were uncertain.

Table 5. Awareness of AI tools being used in pharmacy practice.

Response	Count	%
Yes	98	69.5%
No	24	17.0%
Not sure / Don't know	19	13.5%

Q6. Do you currently use any AI-based tools as part of your work? (n = 141)

Table 6 shows the proportion of respondents who reported currently using AI-based tools as part of their work. A total of 90 respondents (63.8%) reported current AI use. By contrast, 50 respondents (35.5%) reported that they did not currently use AI-based tools, and one respondent was unsure. This question determined the branching structure of the survey, with 90 respondents entering the AI-user pathway and 51 entering the non-user or unsure pathway.

Table 6. Current use of AI-based tools as part of respondents' work.

Response	Count	%
Yes	90	63.8%
No	50	35.5%
Not sure / Don't know	1	0.7%

Q7. Which AI tools do you use and how frequently do you use them? (AI users only; n = 90)

Table 7 summarises the types of AI tools used by the 90 respondents who reported current AI use, together with their frequency of use. The most commonly used category was AI for streamlining administrative tasks or documentation, used at least rarely by 77 respondents of AI users (85.6%). This was followed by development or delivery of educational material, used by 62 respondents, or 68.9%, and professional development or learning tools, used by 56 respondents (62.2%). Use was much lower for predictive analytics for medication adherence, reported by only 9 respondents (10.0%). This indicates that current AI use is concentrated in administrative, educational and learning-related functions rather than advanced predictive or autonomous clinical applications.

Table 7. Types and frequency of AI tool use among current AI users.

Tool category	Used (at least rarely)	% of AI users	Daily use	Weekly use	Never used
Streamlining administrative tasks / documentation	77	85.6%	35	21	13
Development or delivery of educational material	62	68.9%	8	23	28
Professional development or learning tools	56	62.2%	7	19	34
Drug interaction / contraindications checkers	33	36.7%	6	9	57
Clinical decision support systems	32	35.6%	7	7	58

Tool category	Used (at least rarely)	% of AI users	Daily use	Weekly use	Never used
Patient counselling tools or chatbots	21	23.3%	4	2	69
Consultation or clinical note-taking tools	20	22.2%	5	4	70
Inventory management / demand forecasting tools	18	20.0%	3	5	72
Predictive analytics for medication adherence	9	10.0%	3	2	81

Q8. Other AI tools specified (AI users only; free text)

Table 8 summarises free-text responses naming specific AI tools used by respondents. Seventy-nine respondents who reported using AI provided free-text entries. Co-pilot was the most frequently mentioned tool, with 62 mentions, followed by ChatGPT with 21 mentions. Other tools were mentioned much less often, including Claude with 4 mentions, DeepSeek with 3 mentions, and Perplexity and Heidi with 2 mentions each. As these were free-text responses, the figures should be interpreted as the number of times each tool was identified in responses, or the frequency of mentions, rather than as mutually exclusive respondent categories.

Table 8. Free-text mentions of specific AI tools used by respondents.

Free-text tool mention	Mention count
Copilot / Co-pilot	62
ChatGPT	21
Claude	4
DeepSeek	3
Perplexity	2
Heidi	2
Other individual mentions (e.g. Medwise, YapNote, Rapid Triage)	Single mentions

Q9. How are the AI tools primarily accessed? (AI users only; n = 90)

Table 9 shows how the 90 respondents who reported using AI reported accessing AI tools. Employer-provided access was the most common route, selected by 42 respondents (46.7%). A further 33 respondents (36.7%) reported using both employer-provided and self-sourced tools, while 15 respondents (16.7%), relied on tools they sourced themselves. Overall, 75 of 90 respondents (83.3%), reported at least some employer-provided access, suggesting that organisational provision is already an important route for AI adoption.

Table 9. Access routes for AI tools among current AI user respondents.

Access route	Count	% of AI users
Provided by my employer	42	46.7%
Both provided by my employer and sourced by me	33	36.7%
Sourced by me	15	16.7%

Q10. Challenges or limitations experienced when using AI tools (AI user respondents only; n = 90)

Table 10 summarises the main challenges reported by the 90 respondents who currently use AI tools. Accuracy and clinical safety concerns were the most commonly reported issue, selected by 52 respondents who reported using AI (57.8%). This was followed by lack of integration with systems, reported by 37 respondents (41.1%) and data protection or information governance restrictions, reported by 34 respondents (37.8%). Lack of guidance or training was also common, affecting 31 respondents (34.4%). Only 14 respondents (15.6%) selected no challenges. This shows that even among current users, adoption is accompanied by substantial safety, governance, training and operational barriers.

Table 10. Challenges or limitations experienced by current AI user respondents.

Challenge	Count	% of AI users
Accuracy / clinical safety concerns	52	57.8%
Lack of integration with systems	37	41.1%
Data protection / information governance restrictions	34	37.8%
Lack of guidance / training	31	34.4%
Cost / licensing	25	27.8%
No challenges selected	14	15.6%
Time burden / workflow friction	12	13.3%

Challenge	Count	% of AI users
Other (free text)	7	7.8%
Poor usability	5	5.6%

Q11. Other challenges described in free text (AI users only)

Free-text responses were consistent with the quantitative findings. Common themes included:

- Need for manual verification and checking due to hallucinations or factual inaccuracies.
- Limited trust in outputs without strong baseline knowledge.
- Variable digital literacy and prompt-writing skills among users.
- Concern about inappropriate or uninformed use by colleagues.
- Use mainly for drafting, formatting and administrative support rather than high-risk clinical decisions.

Q12. Are AI tools integrated with other workplace digital systems? (AI user respondents only; n = 90)

Table 11 shows whether the 90 respondents who reported using AI reported that their AI tools were integrated with other workplace digital systems. Fewer than half of AI users, 40 respondents reported that the tools were integrated (44.4%). A further 33 respondents said they were not integrated (36.7%) while 17 respondents were unsure (18.9%). This suggests that AI use is occurring in practice, but integration into routine workplace systems remains mixed and not yet fully mature.

Table 11. Integration of AI tools with workplace digital systems.

Response	Count	% of AI users
Yes	40	44.4%
No	33	36.7%
Not sure / Don’t know	17	18.9%

Integration appears mixed rather than mature, with fewer than half of AI users (40/90) reporting clear integration into workplace systems.

Q13. Main reasons for not currently using AI tools (AI non-user respondents only; n = 51)

Table 12 summarises the reasons selected by the 51 respondents who did not currently use AI tools or were unsure whether they used them. Concerns about accuracy or safety were the most frequently selected reason, reported by 40 respondents of non-users (78.4%). Unclear governance or accountability was selected by 33 respondents (64.7%) while lack of training or confidence was selected by 25 respondents (49.0%). Lack of access to tools was also common, affecting 22 respondents (43.1%). These findings suggest that non-use is driven primarily by safety, governance, training and access barriers, rather than by lack of relevance alone.

Table 12. Main reasons for not currently using AI tools among AI non-user and unsure respondents.

Reason	Count	% of non-users
Concerns about accuracy or safety	40	78.4%
Unclear governance or accountability	33	64.7%
Lack of training or confidence	25	49.0%
Lack of access to tools	22	43.1%
Not relevant to my role	9	17.6%
Workplace policies restrict use	7	13.7%
Other individual free-text reasons	4	7.8%

3.3. Section 3: Impact on Work

Key summary: More than half of respondents (56%) reported that AI had improved workflow efficiency to some extent, with most reporting slight improvement rather than substantial. However, a significant proportion also reported that they did not use AI tools at work, which is important context when interpreting the findings. When asked whether AI had improved patient care, the most common answer was “Not sure / Don’t know”, and only a minority reporting improvement. This highlights a gap between perceived workflow benefit and confidence in direct patient impact. Among the smaller subgroup who believed patient care had improved, benefits were mainly linked to administrative streamlining, professional development, and educational support, with less emphasis on direct clinical decision-making. This group was also overwhelmingly positive about AI’s future role, particularly in documentation, decision support, triage, education, and workflow management.

Q14. Overall, how has the use of AI tools impacted your workflow? (n = 141)

Table 13 presents respondents’ views on how AI tools have affected their workflow. Overall, 79 of 141 respondents (56.0%) reported that AI had improved their workflow efficiency to some extent, comprising 55 respondents (39.0%) who reported slight improvement and 24 respondents who reported significant improvement (17.0%). However, 43 respondents (30.5%) selected that they do not use AI tools at work. This means that while workflow benefits are evident among many respondents, the overall finding should be interpreted in the context of continued non-use by a substantial minority.

Table 13. Reported impact of AI tools on respondents’ workflow.

Response	Count	%
Slightly improved efficiency	55	39.0%
I do not use AI tools at work	43	30.5%

Response	Count	%
Significantly improved efficiency	24	17.0%
No noticeable change	18	12.8%
Made my workflow more complex	1	0.7%

Q15. Do you think the use of AI tools has improved patient care? (asked only of respondents who did not select "I do not use AI tools at work" at Q14; n = 98)

Table 14 summarises responses from the 98 respondents who were eligible to answer whether AI tools had improved patient care. The most common response was "Not sure / Don't know", selected by 55 respondents of eligible respondents (56.1%). Only 25 respondents felt that AI had improved patient care (25.5%), while 18 respondents did not (18.4%). This indicates a clear gap between perceived workflow benefit and confidence that AI has translated into direct patient-care improvement.

Table 14. Perceived impact of AI tools on patient care among eligible respondents.

Response	Count	% of eligible respondents
Not sure / Don't know	55	56.1%
Yes	25	25.5%
No	18	18.4%

Q16. Areas where AI tools had the most positive impact (asked only of Q15 = Yes respondents; n = 25)

Table 15 shows the areas where AI tools were perceived to have had the most positive impact among the 25 respondents who believed AI had improved patient care. The most frequently selected area was streamlining administrative tasks, chosen by 20 respondents of this subgroup (80.0%). Supporting professional development or learning tools was selected by 16 respondents (64.0%) while developing or delivering educational materials was selected by 14 respondents (56.0%). Supporting or enhancing clinical decision-making was selected by 10 respondents (40.0%). This suggests that even where patient-care benefits were perceived, they were most often linked to administrative and educational support rather than highly autonomous clinical functions.

Table 15. Areas where AI tools were perceived to have had the most positive impact.

Area of positive impact	Count	% of Q15 "Yes" respondents
Streamlining administrative tasks (e.g. documentation / record-keeping)	20	80.0%

Area of positive impact	Count	% of Q15 “Yes” respondents
Supporting professional development / learning tools	16	64.0%
Developing or delivering educational materials	14	56.0%
Supporting / enhancing clinical decision making	10	40.0%
Checking for drug interactions / contraindications	7	28.0%
Taking consultation or clinical notes	7	28.0%
Improving patient counselling	5	20.0%
Managing inventory and predicting demand	4	16.0%
Using analytics to predict medicine adherence	2	8.0%

Q17. Do you believe AI tools will play a larger role in pharmacy practice over the next 5 years? (asked only of Q15 = Yes respondents; n = 25)

Table 16 summarises whether respondents believed AI tools would play a larger role in pharmacy practice over the next five years. This question was asked only of the 25 respondents who had already reported that AI had improved patient care. Within this positive subgroup, 24 respondents believed that AI would play a larger role (96.0%), while only one respondent did not (4.0%). The finding is therefore strongly positive but should be interpreted cautiously because it reflects a narrow subgroup already favourable towards AI’s patient-care impact.

Table 16. Expected future role of AI tools in pharmacy practice over the next five years.

Response	Count	% of Q15 “Yes” respondents
Yes	24	96.0%
No	1	4.0%

Q18. Areas where AI tools are expected to have the most impact (asked only of Q17 = Yes respondents; 24 eligible, 22 text responses received)

Among the 22 responses to this question, the main qualitative themes identified were:

- **Administrative streamlining** and documentation support.
- **Clinical decision support**, including integration with prescribing or EPMA systems.

- **Consultation note-taking** and clinical letters.
- **Triage**, scheduling and workflow management.
- **Education and professional development**.
- **Forecasting, audit and surveillance** for higher-risk medicines and service demand.

Future impact is expected to be greatest in administrative and semi-structured cognitive tasks, especially where AI can streamline documentation, support clinical systems, and reduce routine workload to free up professional time.

3.4. Section 4: Governance

Key summary: Most respondents believed that when AI is used in practice, accountability for clinical decisions sits primarily with the healthcare professional using the tool. A smaller but still notable group supported the idea of shared accountability across professionals, organisations, and developers. When asked about patient disclosure, the most common answer was “Not applicable”, suggesting that AI use is not viewed as directly patient-facing or not regarded as requiring explicit disclosure. Only a small minority reported actively informing patients. Overall, the findings show that professional responsibility is seen as central, but there is ambiguity around how AI use should be governed in practice.

Q19. Who is primarily accountable for a clinical decision when AI tools are used in practice? (n = 141)

Table 17 shows respondents’ views on where accountability sits when AI tools are used in clinical decision-making. Most respondents, 98 of 141 or 69.5%, believed that the healthcare professional using the AI tool is primarily accountable. A further 24 respondents supported shared accountability across multiple parties (17.0%). Only 2 respondents selected the manufacturer or developer (1.4%), and one respondent selected the organisation deploying or providing the tool (0.7%). This suggests that professional responsibility remains the dominant accountability model in respondents’ views.

Table 17. Perceived accountability for clinical decisions when AI tools are used in practice.

Response	Count	%
The healthcare professional using the AI tool	98	69.5%
Shared accountability across multiple parties	24	17.0%
Not sure / Don’t know	16	11.3%
The manufacturer / developer of the tool	2	1.4%
The organisation deploying or providing the tool	1	0.7%

Q20. Do you inform patients that AI has been used? (n = 141)

Table 18 summarises whether respondents inform patients when AI has been used. The majority of respondents, 102 of 141 of respondents selected “Not applicable” (72.3%). A further 20 respondents said they do not inform patients (14.2%), while 14 respondents said they do (9.9%). This finding should be interpreted in light of the reported pattern of AI use, which was concentrated in administrative, educational and professional-support tasks rather than directly patient-facing applications.

Table 18. Patient disclosure of AI use in pharmacy-related practice.

Response	Count	% of all respondents
Not applicable	102	72.3%
No	20	14.2%
Yes	14	9.9%
Not sure / Don’t know	5	3.5%

3.5. Section 5: Perceptions & Future Outlook

Key summary: Overall attitudes towards AI in pharmacy practice were moderately positive, but not strongly so. Around half of respondents expressed a positive view, while many remained neutral, and a smaller proportion negative. Confidence in AI tools was limited, with very few reporting high confidence, while the largest group said they were not confident. Concern about AI was widespread, with nearly three-quarters saying that some aspects of AI give them cause for concern. The strongest concerns related to hallucinations and false information, lack of education and training, bias and inequity, over-reliance on AI, confidentiality and information security, and unclear legal accountability. In terms of support needs, respondents prioritised practical use cases, workplace guidance and policies, and accessible online learning resources.

Q21. I feel positive about the use of AI tools in pharmacy practice. (n = 141)

Table 19 presents respondents’ level of agreement with the statement that they feel positive about the use of AI tools in pharmacy practice. Overall, 69 respondents expressed a positive view (48.9%), comprising 53 who agreed and 16 who strongly agreed. However, 41 respondents were neutral (29.1%), and 31 respondents disagreed or strongly disagreed (22.0%). This pattern suggests cautious optimism rather than strong or universal endorsement of AI use in pharmacy practice.

Table 19. Respondents’ overall positivity towards the use of AI tools in pharmacy practice.

Response	Count	%
Agree	53	37.6%
Neither disagree nor agree	41	29.1%
Disagree	22	15.6%
Strongly agree	16	11.3%
Strongly disagree	9	6.4%

Q22. How confident are you in the accuracy and reliability of AI tools used in pharmacy practice? (n = 141)

Table 20 summarises respondents' confidence in the accuracy and reliability of AI tools used in pharmacy practice. Confidence was limited: only 4 respondents reported being very confident (2.8%). The largest group, 60 respondents reported being not confident (42.6%), while 59 respondents were only somewhat confident (41.8%). A further 18 respondents were unsure (12.8%). This indicates that trust in AI accuracy and reliability remains cautious, even though AI use is already relatively common.

Table 20. Confidence in the accuracy and reliability of AI tools used in pharmacy practice.

Confidence level	Count	%
Not confident	60	42.6%
Somewhat confident	59	41.8%
Not sure / Don't know	18	12.8%
Very confident	4	2.8%

Q23. Are there elements of AI tools that give you cause for concern? (n = 141)

Table 21 shows whether respondents identified any elements of AI tools that gave them cause for concern. A large majority, 104 of 141 respondents answered "Yes" (73.8%). Only 11 respondents reported no cause for concern (7.8%), while 26 respondents were unsure (18.4%). This demonstrates that concern about AI is widespread across the sample and is not limited only to those who do not use AI tools.

Table 21. Overall level of concern about elements of AI tools.

Response	Count	%
Yes	104	73.8%
Not sure / Don't know	26	18.4%
No	11	7.8%

Q24. What elements of AI tools give you cause for concern? (asked only of Q23 = Yes respondents; n = 104)

Table 22 summarises the specific concerns selected by the 104 respondents who indicated that AI tools gave them cause for concern. Risks of error and false information, including hallucinations, were the most common concern, selected by 96 respondents of this subgroup (92.3%). Lack of education or training was selected by 75 respondents (72.1%), while risks of bias, inequity or unfair decision-making were selected by 69 respondents (66.3%). Over-reliance on AI, confidentiality and information security, and legal accountability were also selected by more than half of concerned respondents. This shows that concerns are centred mainly on safety, trust, governance, bias and appropriate professional use.

Table 22. Specific elements of AI tools giving respondents cause for concern.

Concern	Count	% of Q23 “Yes” respondents
Risks of error and false information / hallucinations	96	92.3%
Lack of education or training on appropriate use	75	72.1%
Risks of bias, inequity, or unfair decision-making	69	66.3%
Over reliance on AI	68	65.4%
Risks to confidentiality / information security	66	63.5%
Uncertainty about accountability and legal liability	60	57.7%
Environmental impact of AI systems	53	51.0%
Cost of implementing AI and keeping it up to date	38	36.5%
Impact on job role	31	29.8%

Q25. What type of training would help you use AI tools more effectively in your practice? (n = 141)

Table 23 presents the types of training respondents felt would help them use AI tools more effectively in practice. The most frequently selected option was online eLearning resources accessible as needed, chosen by 107 respondents of the full sample (75.9%). Formal online training sessions were selected by 92 respondents (65.2%) while peer support or communities of practice were selected by 77 respondents (54.6%). Face-to-face training was selected by 54 respondents (38.3%). These findings indicate a preference for flexible, scalable and accessible forms of training, supplemented by peer learning.

Table 23. Preferred training formats to support more effective AI use in practice.

Training type	Count	%
Online eLearning resources, accessible as needed	107	75.9%
Formal training sessions online	92	65.2%
Peer support or communities of practice	77	54.6%
Formal training sessions face to face	54	38.3%

Q26. What type of content would help you use AI tools more effectively in your practice? (n = 141)

Table 24 summarises the types of content respondents felt would support more effective AI use in practice. Practical use cases of AI in pharmacy practice were the most strongly supported option, selected by 117 respondents of the full sample (83.0%). Workplace guidance or policies were selected by 103 respondents (73.0%) while advanced applications of AI were selected by 81 respondents (57.4%). Basic understanding of AI was selected by 56 respondents (39.7%). This suggests that respondents prioritise practical, applied and policy-relevant support over general introductory content alone.

Table 24. Preferred content areas to support more effective AI use in practice.

Content type	Count	%
Practical use cases of AI in pharmacy practice	117	83.0%
Workplace guidance / policies	103	73.0%
Advanced applications of AI	81	57.4%
Basic understanding of AI	56	39.7%

4. Discussion

The survey shows a pharmacy profession that is already engaging with AI, but in a careful and cautious way. The data does not support a simple story of either widespread enthusiasm or outright resistance. Instead, it suggests a balanced and pragmatic picture:

- AI is used by the majority of respondents, most commonly for administrative support, educational tasks and learning.
- Use is less established in advanced predictive, adherence and more autonomous clinical domains.
- Workflow benefits are visible, but respondents are less confident that these gains translate to improved patient care.
- Concerns around safety, hallucinations, data confidentiality, accountability and insufficient training remain as major barriers to trust.
- Respondents appear to want implementation support that is practical, aligned with policy, and relevant to professional practice.

Overall, the results suggest that future AI work in pharmacy is most likely to succeed when it focuses on:

- supporting, rather than replacement of professional judgement;
- establishing clear governance and accountability frameworks;
- reducing administrative burden to free up time for patient-facing care;
- targeted training on safe and appropriate use of AI.

5. Limitations and future research

These findings should be interpreted in light of several limitations. First, the survey was based on a self-selected sample of 141 respondents, which may over-represent pharmacy professionals with a particular interest in, awareness of, or concern about AI. The sample was also weighted towards hospital pharmacy, with 80 respondents identifying hospital pharmacy as their primary role (56.7%). Other sectors, including

community pharmacy, industry, academia, regulation, government and other public bodies, were represented by smaller numbers. As a result, the findings may not be fully generalisable across the whole pharmacy workforce.

Second, the survey used a branching structure, meaning that not all questions were answered by all respondents. For example, 90 respondents entered the AI-user pathway, while 51 respondents entered the non-user or unsure pathway. Some later questions reflected the views of narrower subgroups; for example, questions on areas where AI had improved patient care were answered only by the 25 respondents who had already indicated that AI had improved patient care. These subgroup findings should therefore be interpreted cautiously and should not be read as representing the full sample.

Third, the results are based on self-reported perceptions and experiences rather than independent measurement of AI performance, clinical outcomes, workflow efficiency or patient safety. For example, although 79 respondents (56.0%), reported that AI had improved workflow efficiency to some extent, the survey did not directly measure time saved, productivity gains, error rates, safety outcomes or patient-care benefits. Similarly, the finding that 25 of 98 eligible respondents felt that AI had improved patient care reflects perceived impact rather than objectively measured clinical benefit (25.5%).

Further research is therefore needed to build on these findings. Future work could include a larger and more representative survey across pharmacy sectors and UK nations, with stronger representation from community pharmacy, primary care, industry, academia, regulatory settings and early-career professionals. Qualitative interviews or focus groups would also be valuable to explore in greater depth how pharmacy professionals use AI, how they judge trustworthiness, why some avoid AI use, and what forms of guidance, governance and training would be most useful in practice.

Further empirical work is also needed to evaluate the real-world impact of AI tools on pharmacy workflows, professional decision-making, patient communication, safety, equity and outcomes. This should include assessment of both benefits and risks, particularly in relation to hallucinations, bias, confidentiality, accountability, over-reliance and the boundary between professional judgement and AI-supported decision-making. Such evidence would help inform future professional guidance, training priorities and safe implementation frameworks for AI in pharmacy practice.

Appendix 1. Survey branching structure

The table below summarises the main branching points in the survey and shows how respondents were routed to different questions based on their earlier answers. This is included as an appendix because it is useful for interpreting denominators across the report, but it is not essential to the main narrative.

Appendix Table 1. Survey branching structure and respondent routing by question pathway.

Branch point	Route	Respondents
Q6. Current AI use	Yes → Q7 to Q12	90
Q6. Current AI use	No / Not sure → Q13	51
Q14. Workflow impact	If not “I do not use AI tools at work” → Q15	98
Q15. Has AI improved patient care?	Yes → Q16 and then Q17	25
Q17. Larger role over next 5 years?	Yes → Q18	24
Q23. Cause for concern?	Yes → Q24	104

Due to the survey branching design, some later-stage questions were asked only of a subset of respondents. In particular, Q17 and Q18 were completed only by respondents who had already answered “Yes” to Q15. This should be considered when interpreting future-oriented findings, as these reflect a narrower subgroup rather than the full sample.