AI in Rheumatology: Why Patient Literacy Matters

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"I think we need to be able to discuss AI recommendations with our healthcare provider to be sure they are accurate and fit the patient's individual needs."

– ACE National Survey on Artificial Intelligence and Arthritis Care, female respondent living with osteoarthritis.

Artificial intelligence (AI) is transforming rheumatology at an unprecedented pace. AI-enabled tools are now interpreting imaging studies looking for early signs of disease, tracking patient disease activity between visits, assisting with clinical note-taking, answering patient questions, and matching patients to the treatments most likely to work for them.[1,2]

People living with arthritis are using AI chatbots to make sense of their treatment options and help them manage their disease day-to-day. But they still want their doctor or specialist to remain central to shared decision-making. Amid the hype surrounding AI, one question is too often overlooked: are patients adequately prepared to use these tools safely?

In 2025, Arthritis Consumer Experts (ACE) conducted Canada's first patient-led National Survey on Artificial Intelligence and Arthritis Care to find out. We expected hesitation. We found appetite. Respondents expressed strong interest in how AI could support arthritis research (80%), self-care (77%), and treatment decision-making (73%). Four out of five respondents (79%) also believed AI could improve access to care, particularly in rural, remote, and other underserved communities facing specialist shortages.

The survey also highlighted a significant gap between interest and use. While respondents were optimistic about AI's potential benefits, 43% of respondents reported limited knowledge of how AI is currently being used in arthritis care. Actual use of AI-powered health tools remained low (51%), and many participants (67%) were uncertain how to determine whether AI-generated information could be trusted.

Research is finding that adoption of generative AI (such as ChatGPT) is outpacing patient education and health literacy supports.[3] Patients are already using these AI tools to seek arthritis information with little or no guidance on how to evaluate what comes back. Research suggests patients tend to overestimate the reliability of AI-generated medical answers, increasing the risk of misinformation and poor healthcare decisions.[4,5]

Trust emerged as a key issue in ACE's survey data. We found that 61% of survey respondents were most comfortable with AI when healthcare professionals remained actively involved in decision-making and could overrule AI recommendations. Take the human out and comfort collapsed. Concerns about inaccurate information (67%), loss of human connection (57%), and data privacy (53%) were frequently raised. These concerns are reflected in a 2025 study that found patients rated physicians who use AI as less trustworthy, less empathetic, and less competent when the AI's role is not clearly explained, in plain language, before the tool influences a patient's care.[6]

Health equity came up in the survey unprompted. In their open-ended responses, respondents asked whether these AI systems would work as well for people in rural and remote communities, for Indigenous Peoples and racialized populations, for older adults, and for anyone with lower digital literacy. The World Health Organization has raised the same flag, warning that AI could either shrink or widen existing health inequities depending on how these tools are designed and implemented.[7]

"Medical care needs to have a patient-centered focus and this needs to be taken into consideration when building the AI model to assess, diagnose, and treat arthritis patients."

– ACE National Survey on Artificial Intelligence and Arthritis Care, female respondent living with Sjögren's syndrome and dermatomyositis.

People with arthritis have told us what they need. While they recognize AI's potential benefits, they consistently emphasize the need for accuracy and human oversight. Getting there will require patient organizations, rheumatologists and researchers working together to build AI literacy among people living with arthritis. The technology will continue to advance. Patient literacy must advance with it. That's the next challenge for rheumatology.

For further information or comments, reach out to Cheryl Koehn at *koehn@jointhealth.org* or Kelly Lendvoy at *lendvoy@jointhealth.org*.

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