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Letter to Editor

Transforming rheumatoid arthritis care with ChatGPT: A new digital companion

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Dear Editor,

Artificial intelligence (AI) is rapidly entering various sectors, including healthcare (1). Large language models (LLMs), such as ChatGPT, developed by OpenAI, show the potential to revolutionize patient care thanks to their ability to understand and respond to human language. While other LLMs exist, such as Google Bard and Microsoft Copilot, this letter focuses on ChatGPT as a prominent example of how such tools might enhance the management of chronic conditions like rheumatoid arthritis.

Benefits of ChatGPT in rheumatoid arthritis care

Rheumatoid arthritis is a complex autoimmune disease primarily affecting joints, leading to pain, inflammation, and potential joint destruction. Effective management requires a multifaceted approach involving medication, lifestyle modifications, and consistent communication between patients and healthcare providers. ChatGPT can play a complementary role in this process by providing patients with easily accessible information and support. For instance, it can offer clear explanations of medical terms, treatment options, and the importance of medication adherence.[1,2]

Beyond providing medical information, ChatGPT can also assist patients in understanding their condition better and navigating the emotional challenges associated with rheumatoid arthritis.[3] However, it is important to avoid overstating its capabilities. For example, while ChatGPT can offer general information about coping mechanisms and relaxation techniques, it cannot provide personalized mental health counseling. Similarly, while it can help patients track their symptoms, it cannot replace the nuanced assessments and clinical judgment of healthcare professionals. Table 1 highlights various ways ChatGPT can help patients.[2]

Limitations and risks of ChatGPT

It is crucial to emphasize that ChatGPT should be viewed as a complementary tool, not a replacement for qualified healthcare professionals. While it can provide general medical information, it is not equipped to offer specific medical advice or treatment recommendations. Patients should always consult with their healthcare providers for personalized guidance before making any decisions related to their health.

Transparency regarding the source of information is paramount. While ChatGPT draws from a vast dataset,

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Table 1. Different ways ChatGPT can be utilized

Feature	Description	Example
Medication management	Reminds patients about medication schedules, explains side effects, and provides drug interaction information	A patient with multiple medications asks ChatGPT about the best time to take their pills.
Symptom tracking	Helps patients log symptoms over time, identify patterns, and share with healthcare providers	A patient with RA logs their pain levels, and ChatGPT summarizes this data for their doctor.
Diet and nutrition advice	Offers dietary recommendations based on patient's conditions, suggesting anti-inflammatory food or recipes	An RA patient asks ChatGPT for meal plans that might help reduce inflammation.
Exercise guidance	Recommends safe and beneficial exercises for specific and provides guidance and performing them	ChatGPT suggests low-impact exercises like swimming or yoga to maintain joint flexibility.
Educational resources	Provides up-to-date information on medical conditions, treatments, resources, and recent research findings	A newly diagnosed patient asked GPT for detailed information about the condition and treatments.
Appointment Preparation	Helps patients prepare for medical appointments by generating questions and summarizing health data	ChatGPT helps a patient compile symptom logs and relevant questions for the rheumatologist visit.
Lifestyle habit formation	Assists patient in developing healthy habits, such as regular exercise, adequate sleep, and smoking cessation	The patient sets goals and receives reminders and tips from ChatGPT for maintaining healthy habits.
Emergency information	Provide immediate information on what to do in case of a medical emergency or how to recognize urgent symptoms.	A patient experiencing severe RA flare-ups asks ChatGPT for initial steps before contacting a doctor.
Support group connections	Helps patients find and connect with support groups of communities for specific conditions	An isolated patient asked ChatGPT to locate online support groups or local community meetings.
Mental health support	Provides strategies for managing stress, anxiety, and depression and suggests mindfulness exercises.	A patient experiencing anxiety due to RA receives advice on breathing exercises and meditation.

it is essential to note that this information may not always be grounded in peer-reviewed research or established medical guidelines.[4] There is also the risk of misinformation or "hallucinations," where the AI might generate incorrect or misleading information. Users should prioritize information from reputable medical organizations and journals and always discuss any information obtained through ChatGPT with their healthcare providers.

Ethical considerations in AI adoption

Integrating AI into healthcare necessitates a thoughtful approach to data privacy and security.[3] Robust safeguards must be in place to protect sensitive patient information and ensure compliance with relevant regulations, such as the Health Insurance Portability and Accountability Act (HIPAA). Open discussions about data ownership, access, and potential risks are crucial to fostering trust and responsible AI adoption in healthcare.

The effectiveness of AI tools like ChatGPT hinges on users' health literacy levels. Patients who can ask straightforward questions with a strong understanding of their situation are more likely to obtain accurate and relevant information. Educational initiatives aimed at improving health literacy, particularly in the context of AI-driven healthcare, can empower patients to engage with these tools confidently and critically evaluate the information provided.

While ChatGPT's multilingual capabilities hold promise for bridging language barriers in healthcare, it is important to acknowledge potential variations in medical terminology accuracy across languages. Efforts to ensure linguistic sensitivity and cultural appropriateness in AI-driven healthcare are essential for equitable access to reliable information.

In conclusion, while ChatGPT holds significant potential for improving RA care, it is essential to approach its integration into healthcare with a balanced perspective. This includes acknowledging

its limitations, such as the potential for bias in its responses due to the datasets it was trained on. Prioritizing patient safety and privacy, addressing health literacy needs, and actively mitigating biases within AI algorithms are crucial steps to harness the power of AI responsibly and equitably. By doing so, we can empower patients and enhance the patient-provider relationship.

Conflict of Interest

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