Assessment of Chatbot Responses to Preoperative Patient Queries Regarding Total Hip Arthroplasty

Patients are increasingly seeking preoperative information on common orthopedic procedures from artificial intelligence (AI)-driven chatbots. However, the accuracy of AI-based responses regarding surgical orthopedic procedures is unclear.

Review of frequently asked questions (FAQs) related to total hip arthroplasty (THA)

Websites of 10 well-known healthcare institutions

Analysis of responses to 10 FAQs posted to the ChatGPT (OpenAI) thread

Accuracy of chatbot responses to FAQs relating to THA

★ Excellent response not requiring clarification
  - Which Approach Is Better for Hip Replacement? Anterior or Posterior?
  - Is Outpatient Total Hip Replacement Safe?

★ Satisfactory requiring moderate clarification
  - What Are the Risks of Total Hip Replacement?
  - How Common Is Dislocation After Hip Replacement Surgery?
  - How Long Does Recovery Take After Total Hip Replacement Surgery and How Long Will I Be Out of Work?

★ Satisfactory requiring minimal clarification
  - When Should I Get a Hip Replacement?
  - How Common Is Infection After Hip Replacement Surgery?
  - What Is the Success Rate of Hip Replacement?
  - What Limitations Will I Have After Hip Replacement Surgery? Can I Do Any Activity I Want?

★ Unsatisfactory requiring substantial clarification
  - How Long Does Hip Replacement Surgery Take?

ChatGPT provides fairly accurate and evidence-based responses to THA-related queries, which can be easily understood by patients, making it a potentially valuable tool.

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