Keywords: ChatGPT in healthcare

Problem: Physicians bear a heavy administrative burden. ChatGPT is an easy-to-use tool to help lighten the load. However, the NIH reports that this AI tool may increase the spread of misinformation.

Solution: This article helps physicians consider the benefits, limitations and ethical concerns of ChatGPT.

ChatGPT in Healthcare: Benefits, Limitations and Ethical Concerns

ChatGPT and other artificial intelligence (AI) tools are causing a global stir. Since ChatGPT's release by OpenAI in the fall of 2022, people have had strong opinions about its use, especially in healthcare.

With staffing shortages and physician burnout rising, many see AI as a welcomed relief for administrative duties. Others worry that ChatGPT relieves one stress only to add countless other ones.

ChatGPT is an easy-to-use tool that answers questions and creates content and codes. However, the National Institute of Health (NIH) reports that it may spread misinformation. Are ChatGPT and artificial intelligence keys that unlock Pandora's box? This article helps physicians consider the benefits, limitations and ethical concerns of ChatGPT in healthcare.

Key Takeaways

- ChatGPT is an AI tool that produces human-like conversations. It answers questions and delivers analyzed information.
- More than 50% of physicians claim burnout, so many turn to ChatGPT for assistance. ChatGPT can help with administrative duties, like creating patient notes and sending emails.
- AI can analyze vast amounts of data. Therefore, many hope AI tools can improve diagnosing and reduce healthcare administration burdens.
- ChatGPT is in the early phase of development and has several practical limitations. Its use of unreliable resources and inaccurate information are the two most prominent limitation concerns.
- Many physicians report concern about ChatGPT's legal and ethical risks. A robot cannot bear the responsibility of misinformation. Therefore, intense human oversight is vital for the success of all AI tools.

How does ChatGPT work?

ChatGPT can carry on a **human-like conversation by analyzing information and answering questions.** This chatbot uses natural language processing, a field of study that develops algorithms to understand spoken or written language. ChatGPT advances its understanding by using neural network architecture and deep learning techniques. It makes word-choice predictions by using data from the Internet.

Benefits of ChatGPT in healthcare

Many healthcare organizations utilize artificial intelligence (AI) for customer support and data management. Recent conversations revolve around AI's potential ability to diagnose illnesses and reduce physician burnout.

With **50% of physicians claiming burnout** and 20% planning to leave medical practice within two years, the American Medical Association (AMA) hopes tools like ChatGPT can help unburden physicians, allowing them to focus on patient-provider relationships. Many assume ChatGPT in healthcare can improve efficiency and accuracy. They claim the following benefits:

- Delivers well-structured text
- Utilizes articulate vocabulary
- Functions as a fast search engine
- Analyzes literature
- Responds in a human-like way

Clinicians turn to ChatGPT to summarize interactions, write patient notes, and analyze medical records. It also helps retrieve relevant information and recruit for clinical trials.

Patients find ChatGPT useful because they can better manage and understand drug therapies. They can ask questions and receive an immediate response. This resource is useful for general patient education. However, it may hinder patient-specific interventions.

Limitations of ChatGPT in healthcare

Despite its potential benefits, ChatGPT has several limitations that inhibit its dependability. Here are some of the most prominent limitations of ChatGPT in healthcare:

- **Unreliable resources:** It is unable to distinguish between reliable and unreliable references.
- **Training dependency:** Its trustworthiness depends on the data quality used in training.
- **Inaccurate information:** The output can be inaccurate.
- **Out-dated data:** The most current data is from 2022.
- **Translation problems:** ChatGPT cannot clarify ambiguous language.
- **Discernment difficulty:** It struggles to identify essential information.

ChatGPT aims for plagiarism-free content. However, this goal has yet to be fully realized. Publishers worry that content lacks accuracy and dependability.

Medical innovations must undergo extensive evaluation to ensure patient safety, and ChatGPT is no different. Because ChatGPT is **still in the experimental phase, it has yet to be adequately tested.** This AI tool has technical and regulatory challenges that need further evaluation, especially in diverse healthcare specialties.

Ethical concerns

ChatGPT poses legal and ethical concerns. Medical writers, clinical researchers, physicians and all healthcare professionals must consider these possibilities:

1. Possible infringement of copyright laws
2. Medico-legal risks
3. Chance of promoting misinformation
4. Threat of biased information leading to harmful outcomes

ChatGPT abides by the European Parliament (EP) AI ethical guidelines, emphasizing the importance of human oversight. AI only works when organizations empower humans to ensure the following:

- Safety
- Accuracy
- Privacy
- Impartiality
- Accountability
- Sustainability

Additionally, the use of AI in scientific research warrants the question, "Who's the author?" Americans enjoy the privilege of freedom of speech. However, with freedom comes responsibility. Many publishers discount ChatGPT's content because it cannot bear the responsibility or accountability of free speech. **Accountability, authorship, misuse and misinformation are valid concerns.**

Public perception

People are bombarded with ever-changing technologies. Americans welcome many innovations. However, other advancements produce fear and anxiety.

According to AMA president Dr. Jesse Ehrenfeld, MD, MPH, Americans are uncomfortable with the idea of AI creating their care plans or diagnosing their conditions. A 2023 Pew Research Center poll reports that **60% of Americans are uneasy with physicians depending on AI for**

medical guidance. Public perception of the quality of care is an important consideration when evaluating whether to use AI technologies in medical practices.

Providing reliable resources physicians can count on

In the past, the healthcare community has restricted the use of AI. However, tools like ChatGPT may prove invaluable in reducing physician burnout caused by heavy administrative duties. ChatGPT and AI tools boast potential applications that produce vast healthcare benefits. However, ethical concerns and practical limitations cause clinicians caution.

Our hospital is committed to innovation and safety. We believe in empowering our team and providing reliable resources physicians can count on. For more information, check out our website or click the "Refer" button to get started.

Resources

"ChatGPT in healthcare: A taxonomy and systematic review." ScienceDirect: Computer Methods and Programs in Biomedicine, 2024, ChatGPT in healthcare: A taxonomy and systematic review - ScienceDirect.

"ChatGPT, AI in health care and the future of medicine with AMA President Jesse Ehrenfeld, MD, MPH." AMA Update, 2023, ChatGPT, AI in health care and the future of medicine with AMA President Jesse Ehrenfeld, MD, MPH | AMA Update Video | AMA.

"ChatGPT in medicine: an overview of its applications, advantages, limitations, future prospects, and ethical considerations." NIH: National Library of Medicine, 2023, ChatGPT in medicine: an overview of its applications, advantages, limitations, future prospects, and ethical considerations - PMC.

"60% of Americans Would Be Uncomfortable With Provider Relying on AI in Their Own Health Care." Pew Research Center, 2023, How Americans View Use of AI in Healthcare and Medicine by Doctors and Other Providers | Pew Research Center.