Review reveals potential uses and pitfalls for generative AI in the medical setting

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A narrative review from authors at Stanford University provides important insights for clinicians considering using large language models (LLMs) like ChatGPT in their routine practice, including suggestions for usage and potential pitfalls with mitigation strategies. The review is published in *Annals of Internal Medicine*.

LLMs are AI models trained on vast text data to generate humanlike outputs and have been applied to various tasks in health care, such as answering medical examination questions, generating clinical reports, and taking notes. As these models gain traction, health care practitioners must learn their potential applications and the associated pitfalls of using them in a medical setting.

According to the review, LLMs can be used for administrative tasks, like summarizing medical notes and aiding documentation; tasks related to augmenting knowledge, like answering diagnostic questions and questions about medical management; tasks related to education, including writing recommendation letters and student-level text summaries; and tasks related to research including generating research ideas and writing drafts for grants.

However, users should be cautious of potential pitfalls, including a lack of HIPAA adherence, inherent biases, lack of personalization, and possible ethical concerns related to text generation. To mitigate these risks, the authors suggest checks and balances that include always having a human being in the loop and using AI tools to augment work tasks rather than replace them. According to the authors, physicians and other health care professionals must weigh potential opportunities with these existing limitations as they seek to incorporate LLMs into their practice of medicine.

More information: *Annals of Internal Medicine* (2024). www.acpjournals.org/doi/10.7326/M23-2772

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