

## Some challenges and limitations of using ChatGPT in medicine

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### ABSTRACT

In this letter, some peculiarities, challenges, and possible limitations of using ChatGPT in the field of medicine are discussed.

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Dear Editor,

If, on the one hand, there are major concerns addressed in the literature about the infeasibility of authoring scientific articles by ChatGPT (Generative Pre-trained Transformer) (Open AI, San Francisco, CA, USA), on the other, there are still no answers on how to ensure that this is fulfilled. In this context, controversial publications have spoken against the attribution of academic authorship to ChatGPT [1,2] with the main justification that, although this tool can make a 'significant academic contribution' to an article, it would not have the capacity to consent to be a co-author and, consequently, assume responsibility for a study, not even for the part to which it contributed [1].

Other possible limitations include the fact that ChatGPT can return responses that may not be necessarily true, or even different in relation to a same question [1]. Despite many of the responses returned seem plausible in principle, they could be incorrect or meaningless [2]. More specifically, artificial intelligence has the ability to produce texts that emulate what it learns, but not to think to the point of innovating [2,3]. A possible solution suggested in the short term has been the obligation to document the use of large language models (LLMs) in the development of scientific articles within the methods or acknowledgments sections [1]. In my opinion, even the use of LLMs for simpler academic tasks such as proofreading [4] should be important to be mentioned in manuscripts.

However, even though the use of ChatGPT without proper citation may be considered plagiarism [1,2], publishers and Editors cannot guarantee that all authors will abide by such guidelines. This is because there are still no approaches capable of clearly identifying what is or is not an article or part of it prepared by such a tool. Thus, more than ever, full

compliance with the criteria for achieving scientific integrity around the authorship of articles must be highly valued and encouraged. It should also be reasonable to recommend for ChatGPT to be used for scientific purposes only by experienced researchers, which should always be combined with a careful review of the content created by the machine, and therefore, functioning as a complementary tool and not a substitute for human reasoning.

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