LETTER TO THE EDITOR



Translating musculoskeletal radiology reports into patient-friendly summaries using ChatGPT-4: additional considerations

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Received: 7 February 2024 / Revised: 7 February 2024 / Accepted: 21 February 2024 © The Author(s), under exclusive licence to International Skeletal Society (ISS) 2024

Dear Editor,

The technical report by Kuckelman et al. [1] assessed the feasibility and accuracy of ChatGPT-4 for simplifying musculoskeletal radiology reports. However, despite the potential of ChatGPT in radiology report translation, I believe that some concerns remain regarding its deployment in clinical practice which I believe warrant additional consideration and discussion.

In my experience, the primary concern lies in the incompleteness of ChatGPT's report translation, as it may omit crucial details. Enhancing completeness and readability can be achieved by employing a refined prompt with explicit instructions on preserving key information, based on the observed outcomes. Another concern pertains to the inconsistency or uncertainty in ChatGPT's responses. It has the potential to yield varying translations and present information in different formats, potentially leading to oversimplification or loss of information in identical radiology reports prompted similarly.

The absence of a built-in template for report translations contrasts with the consistent template followed by radiologists, enhancing the efficiency of report generation. In my experience, ChatGPT tends to yield diverse formats in the absence of formatting instructions. I am curious to know the authors' experiences with regard to the above two concerns during their study.

Looking ahead, ChatGPT-type systems are poised to play a significant role in healthcare, aiding in tasks such as generating complete radiology reports from medical images, analyzing treatment options, guiding patients' daily routines based on comprehensive medical data, and offering psychological counseling when necessary. To gain regulatory approval, demonstrating the safety and effectiveness of such algorithms will hinge on their intended use, considering

This comment refers to the article available online at https://doi.org/ 10.1007/s00256-024-04599-2.

Arosh S. Perera Molligoda Arachchige aroshshavinda.pereramolligodaarachchige@st.hunimed.eu associated risks and benefits. For example, there is potential for over-reliance on this technology which may diminish the interpretive abilities of experienced radiologists [2].

Nevertheless, tools facilitating communication between healthcare providers and patients are likely to be perceived as safer than those directly influencing patient diagnosis and treatment planning. Ongoing development and thorough evaluations of these products, tailored to regulatory review and user acceptance, are crucial for their continued progress [3, 4].

While I thank the authors for their contribution, I would appreciate a response stating their stance/thoughts relative to the aforementioned points.

Declarations

Conflict of interest The authors declare no competing interests.

References

- Kuckelman IJ, Wetley K, Yi PH, Ross AB. Translating musculoskeletal radiology reports into patient-friendly summaries using ChatGPT-4. Skeletal Radiol. 2024. https://doi.org/10.1007/ s00256-024-04599-2.
- Arachchige PM, A. S., & Stomeo, N. Controversies surrounding AI-based reporting systems in echocardiography. J Echocardiogr. 2023;21(4):184–5. https://doi.org/10.1007/s12574-023-00620-0.
- Arachchige PM, A. S. New horizons: the potential role of OpenAI's ChatGPT in clinical radiology. J Am College Radiol : JACR. 2023;20(10):943. https://doi.org/10.1016/j.jacr.2023.06.028.
- Arachchige Perera Molligoda, A. S. Empowering radiology: the transformative role of ChatGPT. Clinical Radiol. 2023;78(11):851–5. https://doi.org/10.1016/j.crad.2023.08.006.

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