

ACCURACY OF CHATGPT 4 OMNI IN PROVIDING CLINICAL RECOMMENDATIONS IN MUSCULOSKELETAL CARE: A VALUABLE SUPPORT FOR CLINICIANS AND PATIENTS?



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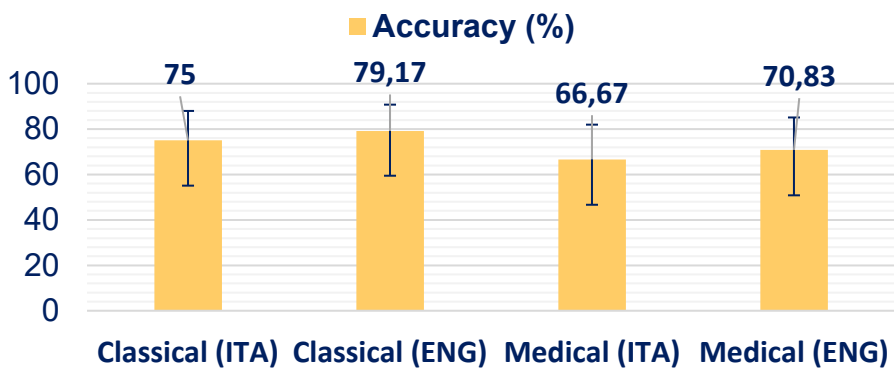
INTRODUCTION AND OBJECTIVE

Generative AI models, such as ChatGPT-4 Omni, are increasingly used in healthcare and may support clinical management of common diseases like osteoarthritis (OA). However, their accuracy in providing up-to-date, evidence-based recommendations is not well studied. This study aims to evaluate the accuracy and consistency of ChatGPT-4 Omni's OA recommendations against current international guidelines (NICE, EULAR, OARSI) and compare them with responses from Italian physiotherapists.

MATERIALS AND METHODS

Cross-sectional study based on 24 clinical questions derived from OARSI, NICE and EULAR guidelines. The questions were presented to ChatGPT-4o in the form of 'classic' and 'medical' prompts, in Italian and English, for a total of nine administrations each. A complex clinical case was also evaluated. Accuracy, internal reliability (SD, CV%) and concordance (Cohen's K) were calculated.

RESULTS



ChatGPT-4o showed good internal consistency (CV < 25%) and moderate to high agreement between Italian and English (K up to 0.902). Accuracy ranged from 66.7% to 79.2%, higher in classical and English prompts.

Agreement with Italian physiotherapist was low (K = 0.106). In the clinical case, the mean accuracy was 81.4%, but answers were only 38.2% complete.

Response category	Italian physiotherapist (%)	ChatGPT-4o (%)
Delivering	25	38.2
Partially delivering	22	8.3
Non delivering	53	53.5

CONCLUSION

ChatGPT-4o shows potential as a support tool in musculoskeletal clinical practice, but its limited accuracy and incomplete responses raise concerns. Clinical use should therefore remain cautious and strictly guided by professional judgment to avoid inappropriate application and risks to care quality.

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