



Artificial Intelligence in Hospital Pharmacy Literature: Exploratory Linguistic Trends and Authorship Transparency

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BACKGROUND AND IMPORTANCE

In early 2024, Springer Nature released an AI tool (formerly "Geppetto") to detect AI-generated text in manuscripts. Large Language Models such as ChatGPT have rapidly entered scientific publishing, yet explicit disclosure of their use remains rare. Understanding AI adoption and transparency in hospital pharmacy literature is important for research integrity.

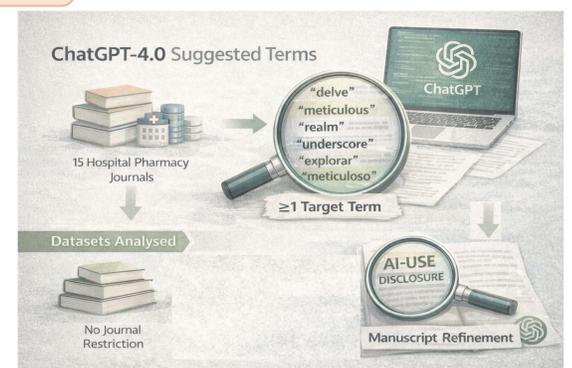
AIM AND OBJECTIVES

To analyse the evolution of ChatGPT-associated terms in hospital pharmacy literature compared with global scientific publications. To determine whether hospital pharmacy articles explicitly report AI use in manuscript drafting or data analysis.

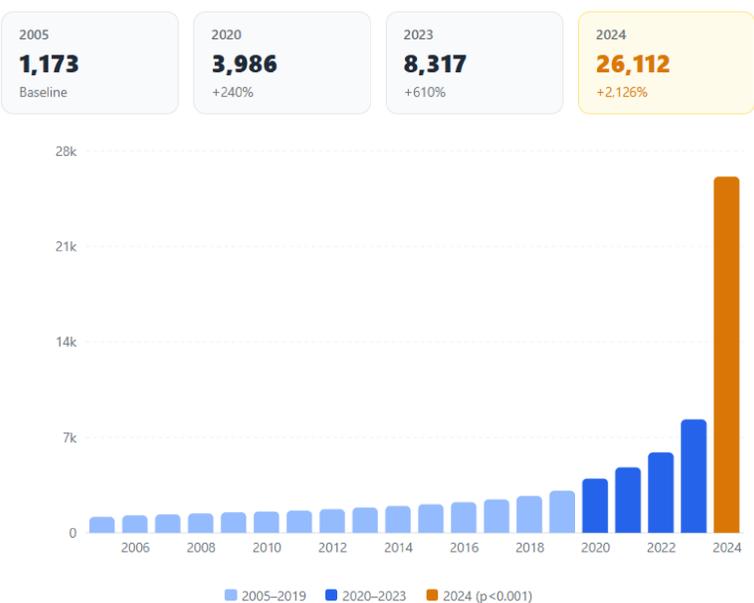


MATERIAL AND METHODS

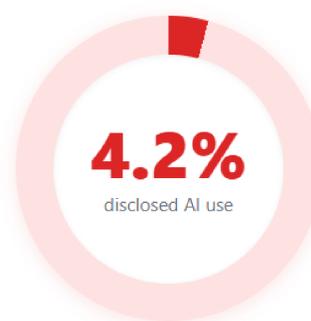
A retrospective analysis was conducted in PubMed (2005–2025). Using a direct query, ChatGPT-4.0 suggested English and Spanish terms representative of its style ("delve", "meticulous", "realm", "underscore", "meticuloso"). Two datasets were analysed: publications in 15 hospital pharmacy journals and publications without journal restriction. A chi-squared test compared the proportion of 2024 articles using these terms with each of the previous 20 years, applying Holm's correction for multiple comparisons. From January 2023 to March 2025, hospital pharmacy articles were qualitatively screened for explicit AI-use disclosure. ChatGPT was also used to refine manuscript drafting.



RESULTS



Globally, target-term frequency rose from 1,173 articles in 2005 to 26,112 in 2024. The 2024 increase was statistically significant versus each of the previous 20 years ($p < 0.001$, Holm-adjusted). In hospital pharmacy journals, annual counts were ≤ 6 until 2022, peaking at 15 in 2024. The hospital-pharmacy year-to-year comparison was not significant, consistent with small sample sizes. Among 24 hospital pharmacy articles (2023–2025), only 1 (4.2%) explicitly acknowledged AI-assisted drafting.



1
article with AI disclosure
out of 24 articles reviewed

23
articles without disclosure
95.8% of total

CONCLUSION AND RELEVANCE

There has been a significant change in the frequency of ChatGPT-associated terms in the global literature, with a structural break from 2023 onwards, coinciding with ChatGPT's widespread adoption. A similar, smaller signal appears in hospital pharmacy journals. Explicit disclosure of AI use in manuscript preparation is rare, revealing a transparency gap. As an exploratory study, the presence of these terms —identified by ChatGPT as characteristic of its style— should not be seen as proof of AI use but as a possible linguistic footprint of its growing influence.