Medical neologisms in clinical practice: composition, use and functional application.

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Abstract

The impact of medical neologisms on clinical practice and doctor-patient communication is a crucial phenomenon driven by scientific and technological advancements. New terms, such as "biomarkers" and "telemedicine," have been integrated into clinical tools, including electronic medical records. The use of these terms is discussed: while they facilitate communication between specialists and name new realities, they can also create barriers to the understanding of patients, the exchange of information among non-specialists, and affect the doctor-patient relationship and adherence to treatments. Additionally, the need for standardization is addressed, including its analysis in medical training and the potential of natural language processing (NLP) tools to enhance the accessibility of information. Ultimately, the use of neologisms must strike a balance between technical precision and clarity, as well as empathy, to optimize both the patient experience and clinical safety.

Keywords:

Neologisms, Medical terminology, Electronic medical history, Medical language, Clinical communication.

Abbreviations

EHR: electronic medical record.

Supplementary information

No supplementary materials are declared.

Acknowledgments

Does not apply.

Authors' contributions

Martha Verónica Placencia-Ibadango: Conceptualization, Research, Data curation, Formal analysis, Writing - original draft.

Ramón Miguel Calixto Vargas Vera: Formal analysis, Research, Writing - original draft, Writing - revision and editing.

Silvia Maribel Placencia-Ibadango: Methodology, Project management, Data curation, Formal analysis, Resources, Software, supervision.

Jessica Paulina Benítez Soto: Formal analysis, research, writing - original draft, writing - revision and editing.

All the authors read and approved the final version of the manuscript.

Financing

The authors financed the costs of reporting this study.

Availability of data and materials

The datasets used and analyzed during the present study are available from the corresponding author upon reasonable request.

Dear General Editor:

Various studies have investigated the phenomenon of medical neologisms from different disciplines, such as applied linguistics, clinical terminology and doctor–patient communication [1–5]. The emergence of terms such as "biomarkers", "telemedicine" or "neurobioetics" has been the object of analysis because of their semantic load, social function and communicative impact in clinical settings [6-8]. Recent studies also emphasize the importance of understanding these terms in the context of electronic medical records and daily professional practice [9-10].

The specialized language of medicine plays a central role in modern clinical practice. In this area, neologisms – terms recently incorporated into the lexicon – emerge in response to naming needs generated by scientific discoveries, technological advances, or emerging phenomena. At present, terms such as "biomarkers", "telemedicine," and "neurobioetics" have transcended from academic discourse to clinical communication. Although the term "covidiot" has been relevant in popular communication, its inclusion in an academic article in this specific context would require a more detailed justification owing to its colloquial nature and potential bias.

These terms enable us to identify new realities, facilitate communication among specialists, and structure scientific discourse. However, they can also introduce barriers to patient understanding if they are not adequately integrated into healthcare practice.

Through a systematic search of academic databases (PubMed, Scopus, ScienceDirect, and Google Scholar), keywords such as "medical neologisms", "clinical terminology", "electronic medical records" and "doctor–patient communication" from recent publications between 2019 and 2025, 15 previous studies and 15 new sources focused on the clinical application of neologisms, such as medical neologisms coined in scientific journals, which are also integrated into clinical tools such as electronic health record systems (EHR), informed consent, clinical practice guidelines and telemedicine platforms.

The use of neologisms in electronic medical records (EHR): Various studies [11-18] have shown that physicians tend to use nonstandardized technical abbreviations and neologisms that can make it difficult for patients to access their own medical information.

The doctor–patient relationship has also been modified. Research [19-21] has shown that the excessive use of technical terms hinders patient understanding and participation in decision-making.

Regarding medical training, authors [20] suggest that medical education programs should include the analysis of neologisms to improve the communication skills of future professionals.

Neologisms not accepted included those related to the COVID-19 pandemic. The pandemic introduced terms such as "infodemic" and "covidient" (or "covidiote"), which are widely used in social networks and media and affect public and professional perceptions of the disease. However, these neologisms could condition adherence to health measures [22], but were not standardized in any medical article.

Neologisms fulfill an indispensable function in contemporary medicine: naming the new and the complex. However, its integration into clinical practice poses several challenges. Although they favor terminological precision among professionals, it can also create communication gaps with patients, especially when explanations are not adequately provided.

The literature consulted indicates that automated natural language processing (NLP) systems, such as those used by GPT and BERT, are being employed to translate clinical notes into more accessible language [19]. This strategy enhances patient understanding and reduces anxiety associated with unfamiliar terms.

Likewise, the lack of standardization can lead to clinical or administrative errors. Studies in hospitals in the United Kingdom and Canada [22, 23], show that terminological ambiguity affects the interoperability of EHR systems.

In conclusion, the creation and adoption of neologisms in medicine are inevitable and necessary phenomena. However, its clinical use should be guided by criteria of clarity, relevance, and accessibility. Health professionals must strike a balance between technical precision and empathetic communication. The integration of these terms should be ethically supervised, incorporated into educational programs, and reviewed for their impact on the patient experience.

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Declarations

Ethics committee approval and consent to participate

Not needed.

Publication consent

Not needed.

Conflicts of interest

The authors have no conflicts of interest.

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Editor's Note

The Actas Médicas (Ecuador) remains neutral concerning jurisdictional claims on published maps and institutional affiliations.

Received: May 14, 2025.
Accepted: June 26, 2025.
Published: July 2, 2025.
Editor: Dra. Mayra Ordoñez Martínez.

How to cite:

Placencia-Ibadango MV, Vargas-Vera R, Placencia-Ibadango SM, Benítez-Soto J . Medical neologisms in clinical practice: composition, use and functional application. Medical Records (Ecuador) 2025;35(2):101-105.

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