

## MEDICAL BUSINESS COMMUNICATION: ECOLINGUISTIC MARKERS

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### *Abstract*

**Introduction.** The issue of systematizing and regulating already established modern terminological systems in the Ukrainian language remains relevant, as evidenced by numerous scientific studies in recent years. Linguistic analysis of the conformity of scientific terminology to current language norms is at the center of ecolinguistics, or linguoecology – a new interdisciplinary field of research aimed at examining violations of correctness, clarity, logic, and other communicative characteristics of speech in a pragmatic sense. The focus of researchers is on the communication system, including medical communication, where the level of term usage culture acts as a marker of normative language use.

**Aim.** To develop a typology of violations of language norms in the functioning of medical terms based on an analysis of a corpus of document texts, to provide and substantiate professional recommendations regarding the appropriateness and normativity of term usage, and to identify the most acceptable nominations for use in medical texts.

**Materials and methods.** The materials for the study of language normativity in written formal communication of medical professionals are a corpus of healthcare document texts approved by the Ministry of Health of Ukraine as normative and directive business papers, published on the official website <https://mozdocs.kiev.ua>. The methods applied include systemic and structural analysis of texts for violations of language norms, editing methods, and the method of generalizing the obtained data.

**Results.** An assessment of the level of normativity of modern medical written communication has been provided, a typology of errors found in medical texts has been developed, and recommendations regarding adherence to language norms in the use of specific problematic medical terms have been proposed.

**Conclusions.** The study of the unification of terminology in scientific and professional communication, considering conformity with current language norms, contributes to the development of a mechanism to ensure a high level of professional medical language, which serves medicine as one of the most advanced domestic scientific fields.

**Keywords:** ecolinguistics, non-normative, term usage, medical document text, violation of language norms

### INTRODUCTION

In contemporary research on professional languages, there is a noticeable trend toward using new categories such as the ecological aspect of modern Ukrainian language, the ecology of medical documentation, the «health status» of the language of medicine, «therapy» of the language of medicine, and so on. These phenomena, in our opinion, fully illustrate the processes inherent in the current state of development of sectoral language subsystems, one of which serves the healthcare sector. Scholars are focused on developing a model for the ecological description of language, the ecology of language communication, and the status of normative

Ukrainian language at all its levels, particularly in professional texts, which has become of significant importance within the current language policy issues [1]. The essence of the problem is clarified through two basic concepts: «ecology» and «norm».

Researchers agree that the linguistic norm consists of a set of the most stable, traditional realizations of language structure elements, selected and fixed by social language practice, suitable for communicative purposes [1, 2, 3, 4]. Linguistic analysis of professional discourse in terms of adherence to corresponding language norms is driven by practical needs in daily professional communication, specialized sectoral education, and

documentation management, among others. The emphasis is on the fact that the goal of language norming is to bring it into alignment with those speech or lexical variants and models that most effectively contribute to the fulfillment of its communicative function [2].

In this context, a rather unusual semantic manifestation is associated with the well-known scientific term «ecology» (from Ancient Greek: οἶκος – environment, dwelling, repository, and λόγος – study, science). Among the numerous new concepts (human ecology, human behavior ecology, ecology of love, ecology of medicine, ecology of language, etc.), all having a clearly expressed anthropocentric core, we can highlight the concept of «linguistic ecology» or «ecolinguistics». This new scientific field emerged at the intersection of linguistics and ecology and is rapidly developing within the context of the modern scientific paradigm.

The development of ecolinguistics was initiated by the works of such foreign scholars as Einar Ingvald Haugen – *Ecology of Language*, Alwin Fill – *Ecolinguistics: State of the Art*, Edward Sapir – *Language and Environment* [7, 8, 9]. The language structures and language, as considered by these scholars, are not closed systems, but rather systems of individual structures that interact with the surrounding world; it is impossible to study language in isolation from its natural and cultural environment [5]. The foundations of modern Ukrainian science in this field were laid by the works of domestic scholars such as A. Kapelyushny, P. Kulyas, Z. Partyk, O. Serbenska, and others [4, 6]. The issues of ecolinguistics are related to a wide range of linguistic topics. For our research, the key aspects are the unification of terminology in scientific and professional communication in accordance with current language norms, the identification of relationships between linguistic and non-linguistic components, and their co-functioning in written and oral communication; the formation of a linguistic culture of communication [5]. We define terminological work in this area as an ecolinguistic study.

The analysis of recent studies shows the efforts of linguists, medical professionals, and educators-practitioners aimed at systematically influencing the functioning of the medical sublanguage and organizing medical terminology in accordance with its functional purpose – to express scientific concepts concisely, accurately, and unambiguously.

### AIM

To define the typology of violations of language norms in the process of medical term usage through an ecolinguistic analysis of a corpus of document texts; to provide and justify professional recommendations regarding the appropriateness and normativity of term usage, taking into account the most suitable nominations for use in medical texts.

## MATERIALS AND METHODS

The study of language normativity in the written formal communication of medical professionals was conducted through an ecolinguistic analysis of a corpus of medical document texts, approved by the Ministry of Health of Ukraine as normative and directive business documents and published on the official website <https://mozdocs.kiev.ua>. Methods of systemic and structural analysis of texts for violations of language norms were applied (methods of recording lexical, grammatical, and other anomalies; identifying ambiguities in the text), methods of editing (ensuring contextual accuracy in term usage, methods of restoring logical connections in the text), and the method of generalizing the obtained data.

## RESULTS AND DISCUSSION

The ecolinguistic analysis of a corpus of selected medical texts of an official business nature (quantity – 112), which are included in the list of valid normative and directive documents approved by the Ministry of Health of Ukraine, revealed a certain number of anomalies (errors) as a result of unjustified violations of language norms [10]. Among the studied texts, only 8 (7%) did not contain any errors.

It is worth noting that language norms include: lexical (choice of words, differentiation of their meanings); grammatical (choice of correct word forms – with precise endings, suffixes, prefixes, gender and number forms, root alternations, etc.); syntactic (adherence to lexical compatibility patterns of words and word combinations and sentence construction); phraseological, stylistic (appropriateness of using linguistic means according to the communication situation); orthoepic (pronunciation); orthographic (spelling); and other norms: psycholinguistic, scientific, logical [4]. At the same time, this refers to the non-compliance of certain words with generally accepted terminological norms: they should be concise, accurate, euphonious, derivationally mobile, and clearly correlate with the concept they denote [2]. It should be emphasized that along with identifying the cause of a communicative failure, it is useful to understand the reason for violating a language norm: simple ignorance of the norm by the speaker, influence of the Russian language, weak logical thinking, mental-psychological features of text generation, etc. [4].

We agree with the opinion that in deviology (from Latin *deviatio* + Greek *logos* – study, word), the scientific field that studies all types of deviations from the norms and laws of communication, it is necessary to rely on a specific classification of language errors. When developing a typology of anomalies in contemporary medical written communication, the authors based it on the typology of errors by P. Kulyas [4].

In light of the focus of our research, the main types of errors in medical written discourse include:

✓ Lexical errors: imprecise word usage, failure to distinguish words from the same semantic field (synonyms, paronyms, etc.), usage of Russisms, calques, clichés;

✓ Grammatical errors: violations of norm creation, morphological errors, grammatical variability;

✓ Syntactic errors: violations of lexical compatibility norms, use of established expressions.

Let us now consider the above points in more detail. The schema for describing the existing errors in the texts is presented in Table 1.

The material presented in the Table 1 records the variety of errors: faults in the declension of words, incorrect grammatical forms of verbs, errors in the formation of adjective and participle terms, etc.

Among the non-normative elements in the examined texts, the most frequent are various violations

of lexical norms – 32 errors (53%). Nineteen syntactic errors were identified, accounting for 31% of the total number. The least common in medical written texts are grammatical errors – 10 (16%). This trend allows us to conclude that the main problem in achieving the normative nature of a medical text is the violation of term usage. The developed schema for describing violations of language norms also allows us to identify the frequency of specific non-normative elements. Among the list with the highest frequency coefficient are the following lexical non-normative elements: «лікуючий лікар» «treating doctor» (18) – the normative term is «відповідальний лікар» «responsible doctor», «лікар-куратор» «supervising doctor»; «листок» «leaf» (14) – the normative term is «аркуш призначень» «prescription sheet», «температурний аркуш» «temperature sheet»; «заключний діагноз» «final diagnosis» (9) – the normative term is «остаточний діагноз» «definitive diagnosis»; «число» «number» (8) – the normative term is «загальна кількість» «total number», «кількість днів» «number of days», and others.

Table 1

### Violation of grammatical norms

Anormative	Document text	Norm
<i>органу</i> <i>органу, що обстежується</i>	039-6/о Щоденник обліку роботи ендоскопічного відділення (кабінету) (Daily Work Log of the Endoscopic Department (Office))	<i>органа, що обстежується</i> <i>(of the organ being examined)</i>
<i>супутній</i> <i>супутній діагноз</i>	003/о Медична карта стаціонарного хворого (Medical record of an inpatient)	<i>супровідний діагноз</i> <i>(accompanying diagnosis)</i>
<i>завідуючий</i>	018/о Картка обліку вилучення тканин (Tissue Removal Record Card)	<i>завідувач (head of a department)</i>
<i>конкуруючий</i> <i>конкуруючі стани</i>	003/о Медична карта стаціонарного хворого (Medical record of an inpatient) 066/о Статистична карта хворого, який вибув із стаціонару (Statistical card of a patient who has been discharged from the hospital)	<i>конкурентні стани</i> <i>(competing conditions)</i>
<i>почато</i>	048/о Журнал реєстрації ультразвукових досліджень (Ultrasound examination registration journal) 050/о Журнал запису рентгенологічних досліджень (X-ray examination recording journal)	<i>розпочато</i> <i>(started)</i>
<i>виконаний</i> <i>виконаний весь об'єм роботи</i>	039-6/о Щоденник обліку роботи ендоскопічного відділення (кабінету) (Daily work log of the endoscopic department (Office))	<i>виконано</i> <i>(completed)</i>
<i>резус фактор</i>	003-4/о Листок лікарських призначень (Prescription form)	<i>резус-фактор</i> <i>(Rh factor)</i>

## CONCLUSIONS

1. This study aims to standardize medical written communication by providing professionally justified recommendations for the use of specific terms essential to modern medical discourse. As a result of the study, it was found that a significant portion of the examined medical texts in written communication requires professional editing due to the presence of certain lexical (53%), grammatical (31%), and syntactical (16%) errors. The vast majority of lexical errors emphasize the need for strict adherence to the norms of terminology usage in the field of clinical medicine.

2. By examining the unification of terminology in scientific and professional communication while ensuring

alignment with current linguistic norms, the research seeks to establish a framework that upholds a high standard of professional medical language. This, in turn, supports the advancement of medicine as one of the most progressive scientific fields in the country.

**Prospects for further research.** Given the problematics of our work – the study of violations in term usage norms in medical written communication, focusing on lexical, grammatical, and syntactic non-normative elements – such characteristics as issues of clarity, logical connections within the text, and the mental-psychological nature of authorial errors were not included in the analysis. These aspects of research are considered relevant and promising.

## COMPLIANCE WITH ETHICAL REQUIREMENTS

This article is based on the analysis of publicly accessible data. No patient-identifiable information was used in the course of this work, and ethical committee approval was not required, as the research did not involve any new clinical interventions or the primary collection of patient data. The authors adhered to the ethical principles outlined in the Declaration of Helsinki by the World Medical Association, as well as international standards for medical journal publications, including the recommendations of the International Committee of Medical Journal Editors (ICMJE). There is no evidence of plagiarism

or data fabrication in this work, and all sources are properly cited and formatted.

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The article was funded by the authors' own funds. The authors declare no conflict of interest.

## AUTHOR CONTRIBUTIONS

Lytvynenko N. P.<sup>A, E, F</sup>  
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**Резюме****МЕДИЧНА ДІЛОВА КОМУНІКАЦІЯ: ЕКОЛІНГВІСТИЧНІ МАРКЕРИ**Ніна П. Литвиненко<sup>1</sup>, Наталія В. Місник<sup>1</sup>, Ольга С. Мірошніченко<sup>1</sup>, Оксана Ю. Ніколаєва<sup>1</sup>, Олена М. Машкіна<sup>2</sup><sup>1</sup>Національний медичний університет імені О. О. Богомольця, м. Київ, Україна<sup>2</sup>Державна наукова установа «Центр інноваційних технологій охорони здоров'я» Державного управління справами, м. Київ, Україна

**Вступ.** Проблема впорядкування й нормування вже сформованих сучасних терміносистем української мови не втрачає актуальності, на що вказують численні наукові дослідження останніх років. Лінгвістичний аналіз відповідності наукової термінології чинним мовним нормам перебуває у фокусі проблематики еколінгвістики, або лінгвоекології – нового міждисциплінарного напрямку досліджень, скерованих у прагматичному сенсі на з'ясування порушень правильності, ясності, логічності й інших комунікативних характеристик мовлення. В полі зору дослідників – система комунікації, зокрема, й медичної, де маркером нормативності виступає якраз рівень культури терміновживання.

**Мета.** Розробити типологію порушень мовних норм у процесі функціонування медичних термінів у результаті аналізу корпусу текстів документів, надати й обґрунтувати фахові рекомендації щодо доцільності та нормативності терміновживання, визначивши найбільш прийнятні для використання в медичному тексті номінації.

**Матеріали та методи.** Матеріалами дослідження мовної нормативності письмової формальної комунікації медичного працівника є корпус текстів документів у галузі охорони здоров'я, затверджених МОЗ України як нормативно-директивні ділові папери й оприлюднених на офіційному сайті <https://mozdocs.kiev.ua>. Застосовано методи системного та структурного аналізу текстів на порушення мовних норм, методи редагування, метод узагальнення отриманих даних.

**Результати.** Надано оцінку рівня нормативності сучасної медичної писемної комунікації, розроблено типологію помилок, наявних у медичних текстах, запропоновано рекомендації щодо дотримання мовних норм у використанні конкретних проблемних медичних термінів.

**Висновки.** Дослідження уніфікації термінології наукової та фахової комунікації з урахуванням відповідності чинним мовним нормам сприяє виробленню механізму забезпечення високого рівня фахової медичної підсистеми мови, що обслуговує медицину як одну з найрозвиненіших вітчизняних наукових галузей.

**Ключові слова:** еколінгвістика, анорматив, терміновживання, текст медичного документа, порушення мовних норм

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