

DOI 10.36074/grail-of-science.15.03.2024.041

CHALLENGES IN TRANSLATING MEDICAL TERMINOLOGY: A COMPREHENSIVE ANALYSIS OF ENGLISH-UKRAINIAN PHARMACEUTICAL TEXTS

Behdai Anastasiia

Master's degree student of Faculty of Chemical and Biopharmaceutical Technologies

Kyiv National University of Technologies and Design, Ukraine

Gudkova Nataliia 

PhD in Philology, Ass. Prof. of the Department of Philology and Translation

Kyiv National University of Technologies and Design, Ukraine

Summary. *The article examines the peculiarities of translating medical instructions from English into Ukrainian. The medical terms in the instructions for medicinal products were analyzed. The article emphasizes the necessity of the translator's knowledge in the field of medical sciences, in particular, pharmacology, biochemistry, pharmaceutical chemistry. Problems that hinder the correct translation of medical instructions are emphasized, the main of which are difficulties in translating abbreviations, eponyms, synonyms, Latinisms, and Greekisms.*

Keywords: *medical terminology; translating; pharmaceutical texts; translation of medical instructions*

Introduction. In today's world medicines have become an integral part of human life, and therefore, translation of pharmaceutical texts has taken an important place among other types of medical translations. The problem of adequate translation of instructions for use of medicines is relevant today, as the specifics of pharmaceutical discourse require research in the broad context of professional and non-professional communication, taking into account the latest information processes [2].

The process of developing medicines, their discussing at international conferences and further implementation takes place mainly in English. Thus, the problem of adequate translation of medical terminology of English-language instructions for medical products certified by Ukraine is among the most under-researched and urgent [7].

According to M. Rulo, the criteria for the adequacy of medical translation are: 1) accurate conveyance of the main idea (message) of the original, 2) adherence to the grammatical norms adopted at the time of translation, 3) idiomaticity 4)

reproduction of the emotional tone of the original, 5) comprehensibility for a reader belonging to a different culture [14].

The patient information leaflet (PIL) represents one of the most common textual genres belonging to medical discourse. The PIL became a legal requirement in 1992 with Council Directive 92/27/EEC, which requires that all drug packages be accompanied by a PIL (Council of the European Communities, 1992), which means that the PIL is a so-called "legally regulated" genre [13]. Thus, it is governed by several rules and standards that affect both the structure and content of PILs and their translation. According to European legislation, PILs must be «written and designed in a way that is clear and understandable, enabling users to act appropriately, if necessary, with the help of healthcare professionals» [12].

A patient information leaflet (instruction) is an independent type of text with a special way of presenting content, which gives precise (step-by-step) instructions for performing technical or other actions that lead to a specific result. The purpose of instructional texts is to show the reader the order of actions to be taken to obtain a certain result. The study of the syntax of instructional texts allows us to determine their features, since the instruction encourages the reader to perform a certain sequence of actions [8].

The study of the peculiarities of medical terminology and vocabulary of scientific and medical texts, as well as instructions, is relevant at present, because any mistake in translation can lead to misinterpretation of the information received, which in the future can cause an accident or lead to the death of the patient.

Analysis of recent research and publications. The problem of translation of medical instructions is very acute. Many specialists are engaged in the study of translation problems that arise in various medical categories. Many domestic and foreign researchers are engaged in the study of this rather relevant field. They study lexical and structural characteristics of medical terminology in the English instructions for medicinal products certified in Ukraine, and the means of their reproduction in Ukrainian translation [7], analyze terms in terms of instructions for medicines [6], determine the frequency, categories and potential clinical consequences of errors in medical interpretation [10], define marginal ways of medical terms formation [9], investigate specifics of medical translation teaching [11], focus on key factors for regulation of nanomedicines including their interpretation into other languages [15].

The purpose of the article is to study the peculiarities of medical terminology in English and Ukrainian, and **the subject** is the problems that may arise when translating terms. The objectives of the article are to identify the problems of translation of medical instructions; to analyze the peculiarities of translation of medical terminology; to determine the meaning, structure and methods of translation of medical terms.

Research results. Medical vocabulary is one of the oldest professional terminologies, which was formed on its own language base, assimilating everything that the world civilization had developed at the time of its creation. Medical terminology is not a permanent system. It changes to meet the needs of the times. The history of the development of medicine changes in scientific views. Integration and differentiation of disciplines, cultural ties, the influence of the lexical and

semantic system of the language – all this is reflected in the stylistic heterogeneity of medical terminology [1].

Medical terminology should be understood as a system of concepts that denote states and processes occurring in the human body, diseases and their manifestations, methods of diagnosing, preventing and treating diseases, medical equipment, medicines, etc. Therefore, the terms can be conditionally divided into those representing different sections of theoretical and clinical medicine, namely pharmacology, medical technology and related sciences, primarily biology, genetics, biophysics and biochemistry.

To translate medical terminology correctly, a translator needs to take into account a number of important factors, including not only awareness of a particular field of medical science and the ability to navigate it, but also paying attention to the word-formation and morphological structure of the term and keeping in mind certain difficulties that may arise when translating such terminology [5].

The following classification of medical translation difficulties can be applied to any language pair: 1) terminological problems; 2) difficulties in translating abbreviations; 3) difficulties in translating eponyms; 4) the permissibility of using anglicisms; 5) peculiarities of the compatibility of language units and text structure [11].

Abbreviations are traditionally divided into acronyms (*AIDS – acquired immune deficiency syndrome, CAD – coronary artery disease*) and initial abbreviations (*EGDT – Early goal directed therapy, LBP – low back pain*) [4]. Initial abbreviations are very popular in written English to shorten long descriptive terms. For example, biochemical terms such as *deoxyribonucleic acid – DNA (дезоксирибонуклеїнова кислота – ДНК), ribonucleic acid – RNA (рибонуклеїнова кислота – РНК), adenosine triphosphate – ATP (аденозинтрифосфат – АТФ)*; clinical medicine terms such as *acute lymphocytic leukaemia – ALL (гострий лімфобластний лейкоз – ГЛЛ), chronic lymphocytic leukaemia – CLL (хронічний лімфолейкоз – ХЛЛ), autoimmune thrombocytopenia – AITP (автоімунна тромбоцитопенія – АТ)*. Accordingly, linguists need to make efforts to cover and process a fairly significant layer of information related to human health and care [3].

Abbreviations are usually divided into 1) apocope – truncation of the final part of the source word (*lab(oratory) – лабораторія, acet(one) – ацетон*); 2) apheresis – truncation of the initial part of the source word (*bacterio)phage – (бактеріо)фага, (hypodermo)clysis – підшкірна інфузія*); 3) and syncopation – truncation of the middle part of the source word (*nmol (nanomole) – нмоль (наномоль), pt (patient) – пацієнт*).

The scientists have investigated that 18% of abbreviations are translated by transcription, while the remaining 82% have translation equivalents. When translating medical abbreviations, special attention is paid to abbreviations of Latin origin. For example: *b.i.d. (bis in die) – двічі на день, h.s. (hora somni) – перед сном*. As a rule, such abbreviations are international and well known to medical professionals. Therefore, first of all, the translator needs to pay attention to the target audience [4].

Another important type of term is eponyms. An eponym is a term that contains a proper name as well as a common name for a scientific concept. While researching medical terms *eponyms* in the medical literature, we often came across the opinion that eponymic concepts are inconvenient to use and cause difficulties in the process

of their translation. For example: *antrum of Highmore (a natural cavity)* – *гайморова пазуха (порожнина)*, *rouch of Douglas* – *дугласовий простір*, *Linnartz's forcept* – *зажим Ліннарцта (for applying an enteroanastomosis)*, *Museux's* – *зажим Мюзе and others* [3].

In Ukrainian, eponyms can be translated in several ways: 1) descriptive translation, e. g.: *Ferrein's cords* – *голосові зв'язки*; 2) translation by adding a small description to the Ukrainian equivalent, e. g.: *Nelaton catheters* – *еластичний катетер Нелатона*; 3) translation of English terms that do not contain a surname into Ukrainian terms with a surname – as a rule, such terms have duplicate equivalents that do not contain a surname, e. g.: *murine leprosy* – *хвороба Стефанського (лепра щурів)*; 4) translation with replacement of the surname, e. g.: *Duhring's disease* – *хворобливий поліморфний дерматит Брока*; 5) literal translation, e. g.: *Kocher forceps* – *пінцет Кохера*.

When selecting Ukrainian eponymic equivalents, one should take into account the factor of the term's prevalence, its euphony and frequency of use, or use a motivated and more accurate synonym [4].

A particular feature of medical terminology is the particularly widespread use of Latinisms and Greekisms. It is also necessary to take into account recent changes due to the influence of Anglo-American scientific terms. English has had a strong influence and continues to have a strong influence on the scientific terminology of many languages of the world and, through this intervention, many terms (some of them of Latin or Greek origin) have been introduced into Ukrainian and German, both in specialized and popular discourses.

For example, the following international Greek/Latin terms are translated into English: *erythrocyte* – *red blood cell (RBC)*; *leukocyte* – *white blood cell (WBC)*; *thrombocyte* – *blood platelet*; *monocyte* – *mononuclear cell*; *haematopoiesis* – *blood cell production*; *coagulation* – *blood clotting*; *haemolysis* – *blood destruction*; *haemostasis* – *arrest of bleeding*. Translations (calques) of Greek/Latin terms into English have different stylistic meanings. While the international terms *erythrocytes*, *leukocytes*, *thrombocytes*, and *coagulation* serve specialists, their English equivalents *red blood cells*, *white blood cells*, *blood platelets*, and *blood clotting* are used in articles or speeches aimed at the general reader or listener.

Sometimes, along with a borrowed term, several translation options are available, and they mutually form a synonymous relationship, for example, *erythrocyte* – *red (blood) cell* – *red (blood) corpuscle*; *haematostasia* – *control of hemorrhage* – *control of bleeding* – *prevention of blood loss*. A similar synonymous relationship exists between the following terms: *Hodgkin's disease* – *Hodgkin's granuloma* – *Hodgkin's sarcoma*; *myeloproliferative syndrome* – *myeloproliferative disease and myeloproliferative disorder* [3].

The reasons for synonymy in medical terminology are: 1) parallel use of a specific or borrowed term; 2) existence of two or more borrowed terms of different origin; 3) presence of both translated and borrowed forms of a term. The following examples illustrate terminological synonymy: *dyspnea* – *задишка або диспное*; *transplantation* – *трансплантація або пересадка* [4].

Conclusion. The translation of medical terminology from English into Ukrainian is a crucial and under-researched area within the broader field of translation studies. Medical translation specialists need to take into account the peculiarities of

translating medical terminology, because the patient's life and safety depend on the correctness of the information. The main problems faced by translators are abbreviations, acronyms, eponyms, synonyms, and the use of Latin and Greek words. It is also important for a translator to understand medicine, namely pharmacology, medical technology and related sciences, especially biology, genetics and biochemistry. The challenges in medical translation go beyond linguistic proficiency and require a deep understanding of medical science, word-formation, and morphological structures. The awareness of the target audience is crucial, particularly when dealing with specialized terms known to medical professionals. Further research prospects in the linguistic aspect of pharmaceutical translation could involve investigating the impact of evolving medical terminology, linguistic innovations, and the integration of machine translation technologies on the accuracy and clarity of translated pharmaceutical texts.

References:

- [1] Верхратський, С. А. & Заблудовський, П. Ю. (1991). *Історія медицини: навч. посібник* (4-те вид.). Вища школа.
- [2] Гончарук, А. С. (2017). Переклад інструкцій до лікарських препаратів як особливого типу фармацевтичного дискурсу. *Студентський погляд на переклад в сучасному світі*, 20-22.
- [3] Ільченко, Т. (2021). Сучасні проблеми та тенденції перекладу медичної термінології в Україні. *Молодий вчений*, (6 (94)), 38-41.
- [4] Кочергіна, О. М., & Сухова, А. В. (2017). Специфіка перекладу медичних текстів з англійської мови українською. *Studia Philologica*, (1), 169-173.
- [5] Макаренко, Ю. Г., & Ткаченко, І. В. (2014). До проблеми перекладу медичних термінів в науковому англomовному медичному тексті. *Наукові записки Міжнародного гуманітарного університету*, 2(21), 268-271.
- [6] Перхач, Р. Ю., & Сушуловська, М. (2019). Семантичний аналіз медичних термінів в інструкціях до лікарських препаратів. *Молодий вчений*, (10(74)), 190-193.
- [7] Снітовська, О. Й. (2017). Медична термінологія англomовних текстів інструкцій медичних препаратів та відтворення її в українських перекладах. *Записки з романо-германської філології*, (2(39)), 113-123.
- [8] Davis, S. H., Rosenberg, J., Nguyen, J., Jimenez, M., Lion, K. C., Jenicek, G., ... & Yun, K. (2019). Translating Discharge Instructions for Limited English-Proficient Families: Strategies and Barriers. *Hospital pediatrics*, 9(10), 779-787.
- [9] Džuganová, B. (2013). English medical terminology—different ways of forming medical terms. *JAHK: Europski časopis za bioetiku*, 4(1), 55-69.
- [10] Flores G. (2003). Errors in Medical Interpretation and their Potential Clinical Consequences in Pediatric Encounters. *Pediatrics*, 111, 6-14.
- [11] Lee-Jahnke, H. (2001). L'enseignement de la traduction médicale: un double défi? *Meta*, 46(1), 145-153.
- [12] Malangwa, P. S. (2016). Terminological challenges and their impact on the translation of specialized texts: An analysis of pharmaceutical translations from English into Kiswahili. *Kioo cha Lugha*, 16(1), 125-138.
- [13] Mangher (Chitac), A. M. (2019). Translating Pharmaceutical Texts for Non-Specialist Readers. *The Youth of Today – The Generation of the Global Development*, 14(1), 391-398.
- [14] Rouleau, M. (2012). *La traduction médicale: une approche méthodique*. Linguattech.
- [15] Sainz, V., Connot, J., Matos, A. I., Peres, C., Zupancic, E., Moura, L., Silva, L. C., Florindo, H. F., & Gaspar, R. S. (2015). Regulatory aspects on nanomedicines. *Biochemical and biophysical research communications*, 468(3), 504-510.