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MASTERING TRANSLATION SKILLS IN THE STUDENTS OF MEDICAL INSTITUTIONS OF HIGHER EDUCATION WHILE WORKING WITH ENGLISH PROFESSIONAL TEXTS

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УДОСКОНАЛЕННЯ ПЕРЕКЛАДАЦЬКИХ НАВИЧОК У СТУДЕНТІВ МЕДИЧНИХ ЗАКЛАДІВ ВИЩОЇ ОСВІТИ ПІД ЧАС РОБОТИ З АНГЛОМОВНИМИ ФАХОВИМИ ТЕКСТАМИ

Abstract. The article examines the peculiarities of English medical terms' formation and the specifics of their translation into Ukrainian. The relevance of the study is outlined by the rapid development of medicine as well as by an urgent need in exchanging the latest scientific data among specialists in the field of healthcare from around the world, thus requiring high quality specialized texts' translation. Medical translation is considered one of the most complex and responsible areas of the translation activity demanding precision and linguistic proficiency, and any inaccuracy in it may result in serious clinical consequences. The main models of word formation in the English medical terminology, the structural characteristics of terminological units, and the peculiarities of their translation into Ukrainian are covered in the article. It is emphasised that many English medical terms are of Greek or Latin origin, and the knowledge of their morphemic components contribute significantly to better understanding of specialized vocabulary and translation accuracy. It is stressed that students should not only understand the meaning of terms studied but also their structure, morphological components, and contextual usage, which facilitate effective acquisition of medical vocabulary and development of translation skills. It has been found that understanding the specifics of medical translation enables students to master new lexical units, gain linguacultural knowledge, and improve communicative competence in professional English communication. The article analyses common difficulties faced by medical students when working with English specialized texts, including issues of synonymy, homonymy, and contextual variability. The importance of a comprehensive approach to the study and translation of medical terminology for future professionals is underlined, ensuring a high level of professional training, linguistic competence, and effective intercultural communication in the field of medicine.

Key words: english; medical terminology; medical translation; word formation; professional communication.

Анотація. Статтю присвячено дослідженню особливостей утворення англійських медичних термінів та специфіки їх перекладу українською мовою. Наголошується, що актуальність теми зумовлена швидким розвитком медицини та необхідністю точного обміну науковими знаннями між фахівцями різних країн, що вимагає високої якості перекладу спеціалізованих текстів. Підкреслюється, що медичний переклад є однією з найскладніших і найвідповідальніших сфер перекладацької діяльності, оскільки будь-яка неточність може призвести до серйозних клінічних наслідків. Окреслено основні моделі словотворення англомовної лексики, структурні характеристики термінологічних одиниць та особливості їх перекладу українською мовою. Показано, що більшість термінів має греко-латинське походження, а знання морфемних компонентів сприяє кращому розумінню й точності перекладу. Особливий наголос ставиться на те, що студенти повинні розуміти не лише значення термінів, а й їхні структуру, морфологічні компоненти та контекстуальні

особливості використання, що сприяє ефективному засвоєнню медичної лексики та розвитку перекладацьких навичок. З'ясовано, що розуміння особливостей медичного перекладу дає студентам змогу легко засвоювати нові лексичні одиниці, здобувати лінгвокультурні знання та вдосконалювати мовленнєві навички у професійній комунікації англійською мовою. Проаналізовано типові труднощі, з якими стикаються студенти медичних закладів вищої освіти під час роботи з англомовними текстами, зокрема проблему синонімії, омонімії та контекстуальної варіативності. Акцентовано на важливості комплексного підходу до вивчення та перекладу медичної термінології для майбутніх фахівців, що забезпечить високий рівень їхньої професійної підготовки, лінгвістичну компетентність та ефективну міжкультурну комунікацію у сфері медицини.

Ключові слова: англійська мова; медична термінологія; медичний переклад; словотворення; фахова комунікація.

Introduction. The rapid development of medicine substantiates the exchange of scientific research data and practical experience world-wide, thus enriching the vocabulary of specialized terminology. Unlike literary translation with various interpretations being possible, medical translations do not tolerate ambiguity and arbitrary interpretations. «The ***translation*** of ***medical texts*** is a highly specialized field that demands precision, linguistic proficiency, and subject-matter expertise» (Leonardi, n.d.). For this reason, every word must be carefully chosen, and all documentation must be completed meeting international requirements.

Medical translation comprises various types of clinical and personal documents (e.g., discharge summary reports, medical records, case histories, laboratory test results, patient information sheets, etc.); scientific and technical texts (i.e., the results of original researches, published in medical journals, instructions for the use of medicinal products or special devices, documentation for medical facilities, patents for inventions and useful models) being of great importance too (Honchar, Tryhub, & Khnykina, 2022, p. 65). Any informational error in the translation can result in serious clinical consequences, which, in turn, may negatively impact the patient's health and well-being. Thus, there is an urgent need for high-quality translation of medical texts, which leads to the relevance of present study.

The objective of the research is to study the most frequent ways of the English medical terms' formation and the specifics of their translation as well as to analyse the structural characteristics of terminological phrases used in the language of medicine for easier introduction of new linguistic material, monitoring its acquisition, and systematizing students' existing knowledge.

Theoretical framework. Medical translation is one of the most important spheres of translation activity, representing a type of both scientific and technical translation. Information resources in the medical field must be considered not only in terms of their practical use, but also in terms of the specific application of medical terminology in intercultural communication, substantiated by globalization processes in the sphere of medicine (Vuokko, Vakurri, & Palojoki, 2023). «A large amount of new vocabulary, identified with the concepts unknown to the students at the pre-clinical stage of studying is a peculiarity of learning special terminology at the higher medical institution. Mastering conceptual and terminological medical apparatus is further complicated by a number of general medical and highly specialized terms in use» (Prokop, & Kitura, 2025, p. 84).

Medical vocabulary is one of the richest due to its continual enrichment and requires persistent study. The English terms used in the field of medicine are characterized by their systematicity, strict conventionality, stylistic neutrality, compliance with language norms, which prevents the appearance of professional jargon, accuracy and shortness, derivational ability, invariance, and high informativeness (Tkhor, 2021, p. 137).

The Ukrainian scientists T. Kyiak, S. Hrynov, S. Khyzhniak, V. Danylenko, A. Belova, O. Shilovskyi, have addressed general problems of terminology, focusing on the scientific study of concepts and terms, the need for their standardization, and the relationship between terms and their corresponding notions. M. Godovana, V. Kalashnyk, L. Poliuha, O. Pokrovska, B. Rytsar, I. Sabadosh and others studied the issues of industry terminological systems. The main aspects of medical terminology attracted attention of M. Navalna, O. Muntyan, N. Kosmakova, N. Lytvynenko. The phenomenon of medical terminology has become an object of investigation by numerous leading linguists such as B. Golovin, V. Leychyk, O. Superanska. The current challenges in medical translation teaching have been in the attention focus of foreign scientists such as E. Friedman-Rhodes, S. Hale, V. Montalt, E. Hung, H. Tebble, S. Andriesen, H. Fischbach, M. Jensen, V. Montalt, K. Zethsen, W. Karwacka and others. Nevertheless, a thorough study and systematization of medical terms and the main features of their translation are still urgent.

Deep theoretical knowledge creates the conceptual framework for forming students' practical skills and abilities, thus providing the principles and understanding needed for performing various professional tasks correctly and efficiently. However, during foreign language learning, theoretical training in translation of non-linguistic students faces certain challenges. The lack of basic knowledge of translation solutions generates the majority of mistakes and omissions. A student who knows that a specified lexical unit may have several equivalents in a foreign language, and that the use of a particular equivalent is determined by a certain context, style, etc., will

not choose the first option in the dictionary without checking it (Montalt, 2014; Montalt, Zethen, & Karwacka, 2018).

To achieve high effectiveness in teaching students to read and translate English-language medical texts, with the goal of maximizing the use of acquired specialty knowledge in their academic and communicative activities, students must not only know grammar, have an extensive and precise command of words, and pronounce words correctly, avoiding accent mistakes in the words and phrases, but also master medical terminology persistently, learn how to use it, and develop translation skills. This will reduce the time it takes to learn the material, minimize the number of translation mistakes, and improve the quality of linguistic training, which, in turn, will enable students to master their specialty through a foreign language.

Medical texts are often perceived as scientific or even technical ones due to a strict objective information they convey and the use of a highly specialized and precise language. This creates a relatively impersonal, neutral, and homogeneous style, characterized by rigid forms and clichés, logics and precision of wording, the use of specific terminology. The above-mentioned features determine the selection of lexical resources, text structuring and logical connections within the English-language medical text, thus preventing misinterpretation of the presented material. Such approach prevents inaccurate diagnoses and misunderstandings of scientific advances in the field of medicine. This is why the translation of medical texts is considered the most difficult and challenging (Kvitsynska, 2024, p. 78).

Understanding medicals texts by the students depends on their knowledge of medical vocabulary which typically accounts for 75–80% of specialized terms with the dominance of Greek and Latin fund (approximately 89%). Despite the fact that Latin prevails in medical documentation and specialists' communication, «English language is commonly used in a doctor-patient communication and as a language of international cooperation. Therefore, medical English is taught with reference to Latin» (Bujalkova, 2018, p. 7).

The medical terms' formation is based on a combination of lexical and word-formation tools, primarily using roots and affixes from the Greek and Latin languages, combined with compounding English words and borrowing international lexemes. For this reason, students must not only understand the basic meaning of a word but also its structure, including roots, prefixes, and suffixes.

Based on Latin and Greek, English medical terminology provides certain advantages:

– it serves as a bridge between the past and the present;

– Latin and Greek grammatical system and core vocabulary are considered stable, so modern terms are based on classical forms of the dead languages (Bujalkova, 2018, p. 8).

Greek and Latin provide the building blocks for much of English medical vocabulary, with prefixes and suffixes modifying the meaning of root words such as -plasty (surgical repair or reconstruction) – rhinoplasty, abdominoplasty, brachioplasty; auto- (self) – autoimmune, autogenesis, autogamy; hydro- (water) – hydrometric, hydrochloride; -logy (study of) – mammalogy herbology, genealogy; micro- (small) – microtubular, micronutrients, microliter; -ation (surgical repair or reconstruction) – ventilation, intubation, resuscitation; manu- (hand) – manual, manipulation, -mit (send) – transmit, emit, etc. (Dorland, 2023).

Medical terms include, for example, the suffixes -penia (deficiency, lack) – leukopenia, osteopenia; -stasis (standing still or standing) – homeostasis; -algia (painful) – myalgia, neuralgia; -asthenia (weakness) – myasthenia; -itis (inflammation) – otitis, pharyngitis, tonsilitis), -gram (image) – encephalogram, cardiogram), -orrh(o)ea (flow) – diarrhoea, amenorrhea; -ectomy (removal) – appendectomy, hysterectomy, respectively (Dorland, 2023).

The most efficient way for forming medical terms is considered derivation. The method is provided by a certain structure and allows to create new, precise terms from the existing components, e. g., prefix, one- or two-word roots, and a suffix in various combinations. Here are some examples of basic ways of forming English medical terms in word-derivation:

– Prefix + Root + Suffix

Hepatomegaly (enlargement of the liver): «hepat-» (liver) + «-o-» (combining vowel) + «-megaly» (enlargement); intercostal (relating to the muscles between the ribs): «inter-» (between) + «cost-» (rib) + «-al» (relating to);

– Prefix + Root

Prenatal (before birth; during or relating to pregnancy): «pre-» (before) + «natal» (birth); subhepatic (below the liver): «sub-» (below) + «hepatic» (liver);

– Root + Suffix

Dermatitis (inflammation of the skin): «Derma-» (skin) + «-itis» (inflammation);

– Root + Root

Gastroenterology (the branch of medicine which deals with disorders of the stomach and intestines): «gastro-» (stomach) + «entero-» (intestines) + «-logy» (study of); cardiopulmonary (relating to the heart and the lungs): «cardio-» (heart) + «pulmo» (lungs).

English medical vocabulary considerably relies on terminology borrowed from Greek and Latin, as these languages create foundation for the majority of modern anatomical, pathological, and pharmaceutical terms due to their historical use in science and medicine. Knowledge of Latin and Greek roots and affixes facilitates understanding of the entire text,

and reference information on roots, suffixes, and prefixes helps the students to enrich and refine their professional vocabularies as well as to perform componential analysis of medical terms.

It is generally accepted that two classical sources (ancient Greek and Latin) have determined a semantic heterogeneity in the medical lexis. However, national English terminology is also based on the living, natural language, and therefore reflects its inherent national characteristics. So, within the English terminology system, the process of intersection and interaction between national and classical terminology is intensifying.

One more issue in mastering students' skills to translate medical texts is a correct use of synonyms, which often arises as a result of using both specialized and non-specialized language in the same document – we can observe this phenomenon quite often, for example, in hospital discharge summaries or medical records. Due to their frequency, consistency in translation should be considered an absolute priority.

The correct use of synonyms is a challenge in medical translation because terminology in medicine can have multiple meanings depending on the context, and there can be discrepancies between synonym systems in different languages. Students struggle with this because it requires mastering the nuances of both the source and target languages, understanding the specific context in which a term is used, and navigating the unique conventions of medical language.

Aforesaid, a single medical term can have different meanings depending on the specific context. For example, a term might be a general one (e.g., table that means 1) a piece of furniture with a flat top and one or more legs, providing a level surface for eating, writing, or working at or 2) a group seated at table for a meal, etc.), or could have a more specialized meaning in a specific scientific paper (a «diet table» in a medical context refers to the therapeutic diets – food plans prescribed for treating or managing specific medical conditions) (Dorland, 2023).

A number of medical terms belong to polyfunctional vocabulary, and their terminological nature is determined by the context or peculiarities of their usage thus confirming the correlation of terminology with general vocabulary. Medical vocabulary, in fact, may have a significantly broader semantic scope, e.g., the feeling that you are about to become unconscious – fainting; unconsciousness; senselessness; syncope; vertigo; giddiness; dizziness, or lightheadedness, each of them referring to the subtle, specific differences in meaning.

Terms may not have a direct, one-to-one equivalent. This means translators must find the most suitable and accurate term in the target language, even if it's not a perfect synonym.

The study of medical terms' antonyms is considered important for understanding the structure and meaning of clinical terminology as it aids in precise communication as well as can clarify complex conditions for patients and healthcare providers alike (Vuokko, Vakurri, & Palajoki, 2023). By identifying and analysing antonyms, students can better define the relationships between specialized terms, thus strengthening the systematic nature of the medical terminology and ensuring its stability. This systematic structure is crucial for the accuracy of medical records and communication within the healthcare field. Synonymous and antonymous series have formed in clinical terminology thanks to the assimilation of vocabulary of diverse origins into the scientific discourse of medicine.

Modern medical terminology tends to use colloquial English words to describe surgical methods and pathological findings, as well as to demonstrate radiological findings, blood tests, and other phenomena (wisdom tooth (the third molar), keyhole surgery (minimally invasive surgery), horseshoe placenta (a variant of ring-shaped placenta), stress fracture (a tiny crack in the bone caused by repetitive force over time, rather than a single impact), hinge joint (a joint working like a hinge), silver fork fracture (a type of distal radius (wrist bone) fracture), a funny bone (the place at the back of the elbow where the ulnar nerve rests against a prominence of the humerus), etc.

Another type of term formation is compounding, that is a word formation process where two or more existing words are combined to create a new notion, i.e., central nervous system, hay fever, heart attack, sleep walker, blood pressure, gallbladder, etc.

Metaphors are often used in medical language to describe a phenomenon by comparing it to a well-known object (burning pain (a type of sensation described as a stinging or shooting feeling), goose skin (a temporary, bumpy condition of the skin caused by the involuntary erection of hairs at the base of hair follicles), shooting headache (a sharp, stabbing, or ice-pick-like pain), balloon cell (a cell with abundant, clear or foamy cytoplasm), housemaid's knee (the inflammation and swelling of a fluid-filled sac (bursa) at the front of the kneecap), glue ear (otitis media with effusion), goose gait (a person's manner of walking), Swiss cheese appearance (denotes the presence of multiple holes known as «eyes» in the hue of the tissue background), goose-tongue (medicinal plant *Melissa officinalis*) and others.

One of the most productive and traditional ways of the modern medical lexicon formation is the use of eponyms, i.e., terms, derived from the names of individuals, most often famous physicians or scientists, for naming new diseases or conditions (Huntington's disease, Cushing's disease, Parkinson's disease, Alzheimer's disease, tetralogy of Fallot, etc.). Some conditions are named after literary characters

like Peter Pan syndrome, Othello syndrome, Dorian Gray syndrome, Alice in Wonderland syndrome, Cinderella's syndrome and others. The use of eponyms is associated with transforming complex concepts into a single term to designate newly emerging medical phenomena.

Considering English word-formation, it is worthwhile to mention abbreviations and acronyms most often used in the field of medicine (e.g., PMH – past medical history, HR – heart rate, CNS – central nervous system, BP – blood pressure, FB – foreign body). Symbols (e.g., ECG (EKG) – electrocardiogram, p. o. – by mouth, od – once a day, B cell, Vitamin A, ♂ – male, ♀ – female) are crucial components of term formation in English medical vocabulary being universal image units that carry certain meaning in a more condensed way than a full word or phrase (Dorland, 2023).

Initialisms are widely used in written medical English to shorten long descriptive terms, e.g., GABA stands for gamma aminobutyric acid, AITP – autoimmune thrombocytopenia, GGT – gamma-glutamyl transferase, AIDS – acquired immunodeficiency syndrome, DNA – deoxyribonucleic acid, RNA – ribonucleic acid, etc. Initialisms are frequently used in medical texts; thus, it is necessary to introduce the full phrase first and then its abbreviation in brackets to avoid misunderstanding, e.g., the initialism BBB – can mean either blood-brain barrier, or bundle branch block; DOA – stands for either dead on admission, or dead on arrival; ESR – erythrocyte sedimentation rate or electron spin resonance, respectively (Dorland, 2023).

One of the characteristic features of medical texts is the presence of homonyms, that is words that sound the same but have different meanings. They cause potential ambiguity and make accurate translation challenging. Thus, a careful attention to the context is required as understanding the surrounding words and the situation is crucial for correct translation. For example, ileum (the final section of the small intestine in most higher vertebrates) versus ilium (the widest of the three bones that form the pelvis); cholic (refers to cholic acid, a primary bile acid produced in the liver) versus colic (a form of pain that starts and stops abruptly).

A vast majority of English medical terms have also been adopted from other languages over time: «Arabic, often through Latin, as with «alcohol» from al-kuhul «kohl», and «nuchal» from nukha «spinal marrow»; German as with «angst» «a feeling of anxiety, apprehension and insecurity», and mittelschmerz «ovulation pain», from a word meaning «middle pain»; Italian as with «malaria» from mal'aria «bad air», and «influenza» from a word meaning «an outbreak of an epidemic»; Spanish as with «pinta», a tropical infectious skin disease, from a word meaning «spot», and «turista», a diarrhoea affecting travellers; Portuguese as with «albino» «white»; Hindi and Urdu as with «kala-azar», a form of leishmaniasis, from kālā āzār «black disease»; or Japanese as with «sodoku», an infectious disease transmitted by rats, from so «rat» and doku «poison» (Faure, 2018).

Conclusions and Research Prospects. Medical vocabulary is considered to be the main distinguishing characteristic of specialized texts. New achievements in science and technology, the progress of medical science, the implication of modern technologies in the field of medicine, and the emergence of new social phenomena can significantly contribute to the terminological system' enrichment.

While translating specialized texts, medical students become acquainted with new linguistic (speech) units as well as acquire certain linguacultural knowledge necessary for mastering a foreign language. To achieve maximum written and oral translation effectiveness, it is necessary not only to possess a rich vocabulary and appropriately use medical terminology, but also to pronounce words correctly, avoiding errors in the words and phrases' accentuation. All of the above indicates that translation in foreign language teaching would be appropriate to use not only as a means of instruction, but also to introduce it as a subject for non-linguistic students.

Undoubtedly, considered theoretical and practical aspects of learning English term system and formation of specific English communication in future medical specialists do not exhaust all the depth of forms and methods of the language proficiency. Still, many issues of mastering and use of medical terms in professional written and oral translation and communication are to be developed both on the theoretical and practical level.

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