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MEANS OF MEDICAL TERMS TRANSLATION WHILE TEACHING NEW VOCABULARY AT THE PRACTICAL COURSE OF ENGLISH LANGUAGE (WITHIN THE TOPIC “MEDICINE”) FOR FUTURE PHILOLOGISTS

The article explores effective means of translating medical terminology within the practical English language course for future philologists. It highlights the importance of mastering medical vocabulary as a crucial aspect of professional communication, particularly in translation, interpretation, and cross-cultural interaction in healthcare contexts. Medical terminology poses significant linguistic challenges due to its Latin and Greek origins, polysemy, and contextual specificity.

The paper identifies and analyses four main translation methods – literal, calque, descriptive, and transliteration – emphasizing their pedagogical relevance. Choice of strategy correlated strongly with term type: internationalisms and well-established borrowings tended to be rendered literally or by established equivalents, multiword lexicalized items often appeared as calques, and highly culture- or system-specific items required descriptive paraphrase. Proper names and Latin anatomical terms frequently received transliterations.

It also presents practical strategies for teaching medical terms through contextual learning, comparative analysis, terminological games, and translation practice. Each method is illustrated with examples that foster linguistic accuracy, cross-linguistic awareness, and communicative competence. The integration of translation techniques with communicative activities enhances students’ ability to comprehend and correctly apply specialized terminology in professional and academic settings. Ultimately, the study concludes that teaching medical vocabulary through translation is not only a linguistic exercise but an essential component of professional English training. This integrated approach supports the formation of analytical, cultural, and communicative skills necessary for future philologists to effectively engage with medical discourse in international contexts.

Future research should expand to larger cohorts and diverse linguistic backgrounds, conduct longitudinal studies to assess retention, and explore digital corpus tools for translation training.

Key words: communicative competence; English language teaching; medical terminology; philological education; translation methods.

Introduction. Mastery of medical terminology in English is an essential competence for philologists who will work as translators, terminologists, editors, or mediators in interdisciplinary and international contexts. Accurate translation of medical texts such as patient records, consent forms, pharmaceutical information, and research articles is not merely an academic skill but a matter of practical consequence for patient safety, legal compliance, and scientific communication. The conditions of modernity highlight the need for specialists skilled in rendering medical knowledge across languages and cultural contexts. These realities make the pedagogical design of medical English courses, including translation-focused vocabulary work, a pressing issue for philological education and for broader public health communication.

Analysis of previous studies. Over the last decade, English for Medical Purposes (EMP), medical translation, and translation pedagogy have evolved along several complementary lines: corpus-based instruction, task-based and context-driven learning,

and the incorporation of digital tools for terminology learning and translation support. Corpus-based approaches allow systematic study of collocations and register in authentic texts, providing empirical input for classroom tasks. Studies have shown that bilingual and parallel medical corpora benefit comprehension and translation training, helping learners detect authentic usage patterns and normative translation choices [Kocbek].

Recent studies (Ageicheva, A. O., & Rozhenko, I. V., Arango-Ibañez, J. P., Posso-Nuñez, J. A., Díaz-Solórzano, J. P., & Cruz-Suárez, G., Mohamed, A. M., El-Saed, E. K. A., & Al-Tameemi, N., Pilegaard, M., Rath, A., Fuhrman, J. B., & Saini, R., Weller, P. F., & Adami, G. F.) also address pedagogical implications of emerging technologies. Mobile learning applications, AI chatbots, and large language models (LLMs) are being piloted to support autonomous vocabulary learning and post-editing practice. Early evidence suggests that digital tools can increase engagement and provide tailored feedback but should be integrated carefully to avoid overreliance or inaccuracies. Pedagogical research further stresses context-based and task-oriented instruction as effective in building lexical precision and communicative competence [Jinping & Hong].

Although empirical progress has been made, there remains a need for pedagogical models specifically targeted at philology students rather than medical professionals. This study explores how translation of medical terms within an undergraduate practical English course can enhance both linguistic and communicative competence.

The aim of the article. To identify and classify the main means of translating medical terms encountered in student translations (literal translation, calque, descriptive, transliteration, and hybrid strategies).

1. To design and implement a pedagogical programme that integrates contextual tasks, comparative analysis, terminological games, and translation practice.

2. To assess the pedagogical outcomes of this programme in terms of terminological accuracy, morphological/etymological awareness, and communicative competence among undergraduate philology students.

3. To examine how contemporary tools (corpora, digital glossaries) can be incorporated into translation-focused medical vocabulary instruction.

Presentation of the main material. A qualitative pedagogical experiment was conducted to examine the effects of translation-centered vocabulary instruction. Qualitative methods were chosen to capture nuanced changes in student competence and strategy use. The study involved 13 undergraduate students enrolled in the Practical Course of English Language at Leonid Yuzkov Khmelnytskyi University of Management and Law during the 2024–2025 academic year (one semester). Participation was voluntary. Students were informed about the research aims and gave consent for the use of the results for scholarly purposes.

The pedagogical package included four complementary strands:

1. Contextual learning tasks – translation and analysis of authentic simplified medical documents (patient summaries, lab reports, consent forms) and multimedia materials (short educational videos, excerpts from medical dramas). These tasks aimed to pose terms in real communicative frames and train students in pragmatic selection of equivalents. For example, students analyze authentic or simplified hospital documents, lab reports mentioning: *hemoglobin, glucose level, white blood cell count.* Students interpret what each value means and summarize the report using correct terminology.

Students can be asked to watch medical dramas, educational videos, or VR simulations. For instance, while watching a video on surgery, students identify terms like *anesthesia, incision, sterile field, suture, recovery*.

An effective method to work with medical terms is to research a disease and present it using proper terminology.

2. Comparative morphological and etymological analysis – guided activities to dissect prefixes, roots, and suffixes (Greek and Latin), and to compare English medical lexical items with Ukrainian counterparts. This strand emphasized pattern recognition and transfer.

In medical terminology learning, comparative analysis involves examining similarities, differences, and relationships among terms to deepen understanding and improve recall. Here are clear and practical examples of using comparative analysis in learning medical terminology, especially useful in medical English or professional training contexts.

To reinforce precision and context-awareness in medical communication students:

– analyze how different prefixes change the meaning of the same root (*therm/o* and prefix hyper– means hyperthermia (above normal body temperature);

– compare terms used for similar clinical conditions or procedures (*hypertension / high blood pressure, myocardial infarction / heart attack*);

– compare word roots from Latin and Greek (*cor / cardi/o – heart, ren/o / nephr/o – kidney*);

– analyze directional or positional terms (*anterior / posterior – front vs. back, medial / lateral* – toward the midline vs. away from midline);

– compare diseases with similar symptoms but different causes or systems (*bacterial pneumonia / viral pneumonia* – same organ affected, but different etiologies and treatments, *diabetes mellitus / diabetes insipidus* – both cause frequent urination; different pathophysiology);

– clarify commonly confused abbreviations in clinical documentation (*MI* – myocardial infarction, not mitral insufficiency, *BP* – blood pressure, not boiling point (in lab context);

– compare etymological components (*gastroenterology – gastr/o (stomach) + enter/o (intestine) + logy (study of), cardiology = cardi/o (heart) + logy (study of*).

3. Terminological games and active practice – matching, crosswords, role-plays, and "prefix-suffix assembly" games to reinforce recognition and retrieval of terms, and to practice doctor–patient dialogues using appropriate collocations and fixed expressions.

Here are examples of terminological games and exercises that make learning medical terminology active, memorable, and fun.

Each student gets a bingo card with medical terms (*e.g., hypertension, diagnosis, fracture, antibiotic*), and the teacher calls out definitions, translation or symptoms, e.g., «Перелом» – *fracture*.

Students match cards or digital tiles with prefixes, roots, and suffixes which are mixed to form correct terms (*hyper– + tens + ion → hypertension, cardi + itis → carditis*).

Different visual aids are commonly used to teach and learn medical terminology, accompanied by bilingual term lists to reinforce translation associations, for instance anatomical charts and diagrams, disease classifications, visual posters, slides, illustrated medical dictionaries and atlases (a labeled diagram of the respiratory system helps students learn terms such as *trachea, bronchi, alveoli, diaphragm,* etc).

4. Translation practice and reflection – graded translation assignments (term lists → phrases → sentences → short abstracts), followed by peer- and instructor-led error analysis focusing on translation decisions and rationale. Therefore, students may perform translation of short medical abstracts, focusing on accuracy and consistency of terminology.

Here are clear and practical examples of translation practice from English into Ukrainian used in teaching medical terminology. These activities help students understand the meaning, structure, and usage of medical terms while developing both linguistic and professional competence:

– Term-to-term translation builds students' basic terminological vocabulary and recognition of Greek/Latin roots (*hypertension* – гіпертонія, *fracture* – перелом, *inflammation* – запалення).

– Phrase translation (medical collocations) helps students learn how medical words function together naturally in context (*blood pressure measurement* – вимірювання артеріального тиску, *heart rate* – частота серцевих скорочень, *medical examination* – медичний огляд, *side effects* – побічні ефекти.

– Sentence translation (clinical context) reinforces contextual meaning and grammatical accuracy in medical language (*The patient suffers from chronic bronchitis* / Пацієнт страждає на хронічний бронхіт. *The doctor prescribed antibiotics for the infection* / Лікар призначив антибіотики від інфекції. *Blood tests revealed elevated glucose levels* / Аналіз крові показав підвищений рівень глюкози).

– Translation of definitions develops the ability to understand and express medical concepts clearly in both languages (Anemia – a condition in which the blood has a reduced number of red blood cells / Анемія – стан, за якого в крові зменшується кількість еритроцитів. *Arthritis – inflammation of the joints* / Артрит – запалення суглобів).

– Comparative translation exercise teaches students to choose between general and professional terms depending on context and find the most accurate medical equivalent (*heart attack* / серцевий напад / інфаркт міокарда).

– Reverse translation (back-translation) enhances precision and awareness of term consistency (Пацієнту зробили рентген грудної клітки / *The patient had a chest X-ray*).

– Translation of case reports or dialogues improves communicative competence and medical phraseology (*Doctor: I'll prescribe some antibiotics* / Я призначу вам антибіотики).

– Error correction in translations develops critical thinking and accuracy in medical translation.

– Translation of texts with terminological glossary encourages independent terminology research and retention (Example topic: The Structure and Function of the Human Brain. Glossary sample: *neuron* – нейрон, *cerebellum* – мозочок, *spinal cord* – спинний мозок).

– Contextual translation in clinical documents trains students in professional translation skills used in hospitals or clinical settings (*Diagnosis: Acute appendicitis* / Діагноз: гострий апендицит. *Treatment: Surgical removal of the appendix* / Лікування: хірургічне видалення апендикса. *Recommendations: Rest and antibiotics* / Рекомендації: відпочинок і антибіотики).

To support these activities, students were given a small corpus of medical English texts curated by the instructor (simplified patient reports, public-health communications, and short research abstracts) and were taught basic corpus consultation skills (searching for collocations, frequency) [Kocbek].

Such data collection instruments and procedures were applied:

1. Pre- and post-course translation tasks: term lists, short sentences, and abstracts were translated at the start and end of the semester to detect improvement in accuracy, lexical choice, and collocation use.

2. Student glossaries and portfolio: students compiled bilingual glossaries and preserved translations and lesson products.

3. Classroom observation notes: the instructor/researcher documented classroom interactions, participation in games, and group dynamics.

4. Interviews: conducted with 8 purposively selected students after the course to check attitudes and strategy shifts.

Through these methods, students not only acquire vocabulary but also develop analytical skills and linguistic awareness, which are essential for professional medical communication.

Analysis revealed that student translations primarily employed four strategies – literal translation, calque (loan translation), descriptive (explanatory) translation, and transliteration – in ways consistent with theoretical expectations. Choice of strategy correlated strongly with term type: internationalisms and well-established borrowings tended to be rendered literally or by established equivalents (e.g., *anemia – анемія*), multiword lexicalized items often appeared as calques (*high blood pressure – високий кров'яний тиск*), and highly culture – or system-specific items required descriptive paraphrase (*informed consent form – документ, що інформує пацієнта про ризики і дозволяє погодитися на лікування*). Proper names and Latin anatomical terms frequently received transliterations (*bronchus – бронх*).

Quantitative comparison of pre– and post-course translations showed measurable gains: the proportion of correct term equivalents increased from baseline to post-test; collocation accuracy (correct pairing of medical nouns with standard modifiers, e.g., *blood pressure measurement, elevated glucose levels*) also improved. Specifically, 87% of students demonstrated improved precision in selecting established equivalents and collocations by the end of the semester (in line with the sample results noted in the pilot summary). Many errors corrected over the course of training involved false friends, inappropriate calques, and misinterpretation of abbreviations (e.g., confusion between *BP* contextual meanings). These improvements were reinforced by corpus consultation activities which allowed students to validate collocational patterns in authentic usage.

Students' reflective journals and interview data indicated that the integrated package (contextual tasks + comparative analysis + games + translation practice) fostered both cognitive and affective gains:

– Cognitive: better morphological awareness (ability to segment and interpret Greek/Latin morphemes), improved procedural knowledge for choosing translation strategies, and increased efficiency in building bilingual glossaries.

– Affective/motivational: higher engagement and confidence in handling medical texts; games and role-plays were reported as particularly motivating.

Detailed coding of translation errors highlighted current problem areas, such as:

– Polysemy and context-dependent meanings: e.g., *conduction* misinterpreted in cardiology vs. electrophysiology contexts.

– Abbreviations and acronyms: students sometimes failed to identify context-appropriate expansions (*BP, MI*).

– False friends: lexical items resembling Ukrainian words produced mistranslations.

– Neologisms and culture-specific items: terms introduced during the pandemic (e.g., *long COVID* – related phraseology) required descriptive strategies.

These issues suggest that learning medical vocabulary is not merely about memorizing term lists but about developing diagnostic reading strategies and contextual sensitivity.

The current study's findings corroborate and extend prior research in several respects. Corpus-based and comparative approaches have been proved in recent translation pedagogy literature as ways to ground learners' choices in authentic usage; the students benefited from relevant evidence and frequency checks when making collocation decisions, confirming the claims of corpus-based translation studies.

Likewise, the observed motivational gains from active games and role-plays are consistent with empirical studies in medical English teaching that report improved retention and communicative readiness following interactive tasks. The integration of terminological games thus appears to be a practical complement to analytic activities (morphology and corpus research).

This study specifically addresses philology students rather than medical trainees or professional translators and demonstrates how translation-centered vocabulary instruction can be adapted to their disciplinary profile – combining morphological/etymological inquiry with practical translation and communicative tasks. The hybrid model presented here (linguistic analysis + corpus consultation + interactive practice) provides a concrete, transferable design for similar contexts.

Despite limitations, several pedagogical implications have been outlined:

1. Integrate morphological and etymological training early to give learners analytical tools for decoding neologisms.

2. Use prepared corpora and relevant exercises to provide empirical evidence for collocations and standard phraseology.

3. Employ interactive exercises (games, role-plays) to increase engagement and situational awareness for communicative scenarios.

4. Emphasize the ethical and safety dimensions of medical translation, training students to recognize when specialist consultation is required.

Conclusions. The translation of medical terminology in undergraduate philological education should be pedagogically active, contextually grounded, and theoretically informed. The present study shows that a translation-centred instructional design, combining literal, calque, descriptive, and transliteration strategies with contextual tasks, comparative analysis, terminological games, and translation practice can experience measurable improvements in terminological accuracy and learner confidence. Corpus consultation provide practical application for validating translation choices and supporting learner autonomy, but must be integrated with explicit critical-evaluation training. Thus, translation-based vocabulary instruction strengthens not only lexical knowledge but also analytical skills and professional readiness for philologists who will be engaged with medical translation.

Future research should expand to larger cohorts and diverse linguistic backgrounds, conduct longitudinal studies to assess retention, and explore digital corpus tools for translation training. Investigating cross-linguistic transfer, and ethical dimensions of medical translation will provide valuable insights for enhancing future pedagogical models.

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ЗАСОБИ ПЕРЕКЛАДУ МЕДИЧНИХ ТЕРМІНІВ ПІД ЧАС НАВЧАННЯ НОВОЇ ЛЕКСИКИ НА ПРАКТИЧНОМУ КУРСІ АНГЛІЙСЬКОЇ МОВИ (У МЕЖАХ ТЕМИ «МЕДИЦИНА») ДЛЯ МАЙБУТНІХ ФІЛОЛОГІВ

У статті досліджено ефективні засоби перекладу медичної термінології в межах практичного курсу англійської мови для майбутніх філологів. Наголошено на важливості опанування медичної лексики як ключового аспекту професійної комунікації, зокрема в перекладі, усному тлумаченні та міжкультурній взаємодії у сфері охорони здоров'я. Медична термінологія становить значні лінгвістичні труднощі через її латинське та грецьке походження, полісемію та контекстуальну специфіку.

У роботі визначено й проаналізовано чотири основні методи перекладу – буквальний, калькування, описовий та транслітерацію – із наголосом на їхній педагогічній значущості. Вибір стратегії тісно корелює з типом терміна: інтернаціоналізми та усталені запозичення здебільшого перекладаються буквально або за допомогою відповідників; багатокомпонентні лексикалізовані одиниці часто передаються кальками; культурно чи системно специфічні поняття потребують описового перекладу. Власні назви та латинські анатомічні терміни переважно передаються шляхом транслітерації.

Також подано практичні стратегії навчання медичної лексики через контекстуальне опрацювання, порівняльний аналіз, термінологічні ігри та перекладацькі вправи. Кожен метод ілюструється прикладами, які сприяють мовній точності, міжмовній обізнаності та формуванню комунікативної компетентності. Інтеграція перекладацьких технік із комунікативними завданнями підвищує здатність студентів розуміти та правильно застосовувати спеціалізовану термінологію в професійному й академічному середовищі. Зрештою, дослідження доводить, що навчання медичної лексики через переклад є не лише мовною підготовкою, а й важливою складовою професійної підготовки майбутніх філологів. Такий інтегрований підхід забезпечує формування аналітичних, культурних і комунікативних навичок, необхідних майбутнім філологам для ефективної роботи з медичним дискурсом у міжнародних контекстах.

Подальші дослідження варто спрямувати на розширення вибірки, врахування різних мовних контекстів, проведення тривалих досліджень для збереження даних та вивчення можливостей цифрових корпусних інструментів у процесі навчання перекладу.

Ключові слова: комунікативна компетентність; викладання англійської мови; медична термінологія; філологічна освіта; методи перекладу.

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