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Ageicheva A.O.

Poltava National Yuri Kondratyuk Technical University

Rozenko I.V.

Ukrainian Medical Stomatological Academy

MEDICAL TEXTS TRANSLATION PECULIARITIES

Summary. The present article is a general overview on the major aspects in medical translation. It considers certain characteristic features of medical language: terminology, including eponyms and multi-word terms, acronyms and abbreviations, affixation, word compounding, the doublet phenomenon, polysemy and synonymy. The article also describes in general the translation for lay-readers and for professional audiences (expert-expert texts). Attention is paid to qualifications of medical translators, verification and review.

Keywords: abbreviations, acronyms, eponyms, medical terminology, polysemy, synonymy, translator's competence.

Агейчева А.О.

Полтавський національний технічний університет імені Юрія Кондратюка

Роженко І.В.

Українська медична стоматологічна академія

ОСОБЛИВОСТІ ПЕРЕКЛАДУ МЕДИЧНИХ ТЕКСТІВ

Анотація. Стаття є загальним оглядом основних аспектів медичного перекладу. Розглянуто деякі характерні особливості медичної мови: термінологія, включаючи епоніми і багатослівні терміни, абрєвіатури, афіксацію, словосполучення, явище дублету, багатозначність і синонімію. У статті також описується переклад для професійної аудиторії (експертні тексти). Увага приділяється кваліфікації медичних перекладачів, перевірці та перегляду.

Ключові слова: скорочення, абрєвіатури, епоніми, медична термінологія, полісемія, синонімія, компетентність перекладача.

Study problem. Translation activity is a decisive factor in spreading knowledge, practical experience and new discoveries in the field of medicine and pharmacology. It is also the most important issue in providing healthcare services to foreigners or minorities. Translators of medical texts face a great number of difficulties. They include medical terminology, lexical equivalence of medical texts, readability, quality issues. Medical translation concerns a number of subject areas, including pharmacology, medical rescue system, surgery, obstetrics, paediatrics, psychiatry, internal medicine, oncology, cardiology and other fields of specialty, as well as other disciplines, such as law or administration. Translation is a crucial factor in disseminating knowledge and new discoveries in the medical field globally. Medical translation does not concern a single genre or a homogenous discourse. The translated texts include popularizations, such as textbooks for medical students, popular science book on medicine, but also research papers, conference proceedings, case studies, case histories, discharge summaries, reports and relatively simple texts for patients: information leaflets, consent forms, brochures.

Recent research and publications analyses. Medical discourse comprises a range of forms of communication. Gotti (2008: 24) uses the term *specialized discourse* as "the specialist use of language in contexts which are typical of a specialized community stretching across the academic, the professional, the technical and the occupational area of knowledge and practice". Three factors are of crucial importance: the user, the domain of use and special application of language. Medical language is used in expert-expert and expert-lay communication, with characteristic features varying from

genre to genre, depending on the communicative situation and its participants [2; 3; 7].

Genres used in expert-expert communication such as discharge summaries, case studies and case notes, imaging reports and research papers use numerous specialized terms whose semantic value is taken for granted; the only words or phrases which are explained are those coined or redefined by the author of a paper or a presentation (cf. Gotti 2008). Expert-lay communication covers package leaflets, informed consent documents, patient factsheets etc., which use (or should use) less complex terminology, which is illustrated or explained when it occurs for the first time (cf. Gotti 2008). The main characteristics of specialized medical texts include terminology and syntactic features, such as nominalization, heavy pre- and postmodification, long sentences, use of passives and third person (Askehave & Zethsen 2000) [2; 3].

Highlighting problem parts which have not been solved before. A number of texts are translated due to regulatory requirements concerning new medical products and medical devices or new applications of pharmacological products. What also generates the demand for the translation of medical texts is the need to conform to the formal requirements applicable to clinical trial registration and marketing new drugs, which involves translating the registration documents and other necessary materials to the local language. New findings are published in English, which means that a number of research papers are translated.

Article aims. The demand for medical translation is also the result of emigration. Moreover, translators prepare medical files for patients who seek medical help outside their own country of residence. Translators of medical texts face a number

of challenges, some of which are the subject of research. They include medical terminology, lexical equivalence of medical texts, readability, quality issues. This article offers a general overview of the major issues in medical translation.

Medical translation is considered to be one of the most complicated and is the most expensive in its cost in the practice of translation bureaus not only in Ukraine but throughout the world, and rightly so, it has its own peculiar features and can cause serious difficulties for a translator.

Study main material. Difficulties are mainly due to the abundance of complicated medical terminology in various branches of medicine, as well as special words and abbreviations.

Moreover, one and the same term may have different meanings in various branches of medicine, e.g. *anatomy and histology, surgery and dentistry* (e.g. «тілця»: in *immunology and cytology* they are referred as *bodies*, in *histology – corpuscles*, in *dentistry – cells*, in *pulmonology and dermatology – bodies*). Depending on the country and even on its region the same term can have several meanings and it is necessary to translate it taking into account the geographical factor. There is a very important aspect facilitating the work at medical translation. It is the thorough knowledge of Latin by the translator, as this language is universal for physicians around the world.

Most frequently a translator has to deal with scientific texts, ordered for translation not only by the researchers of higher medical educational establishments or medical centers and clinics, but just as well by pharmaceutical companies performing clinical trials of medicinal products which is necessary for the state registration of medical products and medical equipment [1; 3; 7].

A scientific text is more formalized than texts on general subjects, and it primarily concerns natural sciences, especially when the translation should be the most equivalent to the original. Translations of works in mathematics, chemistry, biology and other exact sciences consisting of stereotypic phrases and highly specialized terms are identical to the original, i. e. they possess full equivalence. The fullest equivalence is observed in translating texts of highly specialized nature owing to their unambiguous terminology [1; 5].

The modern language of medicine employs modern derivatives of Greek and Latin words “with no concern for etymological purity” (McMorrow 1998: 21). The corpus of Greek and Latin terminology is still the base of the contemporary medical language, which also uses new eponyms, acronyms and trade names.

Eponyms constitute a considerable portion of medical terminology; they include names of anatomical parts – e.g. *Fallopian tubes, Adam’s apple*, names of diseases – *Parkinson’s disease, Alzheimer’s disease*, signs and symptoms – e.g. *Babinski sign*, fractures e.g. *Jefferson Fracture*, procedures – e.g. *Heller myotomy*, medical devices – e.g. *Bard-Parker scalpel* (cf. Meals 2007). Eponyms are frequently derived from the names of researchers, but may also be derived from the names of celebrity patients – e.g. *Lou Gehrig disease*, a common name for *amyotrophic lateral sclerosis* (cf. Walling, 1999), fictitious characters – e.g. *Othello’s syn-drome*, or

geographical places – e.g. *Lyme disease*. Eponyms may be the source of translation problems – the correspondence between eponymous terms and their equivalents does not necessarily mean that both source and target terms will be eponymous [2].

Acronyms and abbreviations are particularly peculiar for medical texts. Medical texts do not contain enough metaphors and other stylistic means therefore translating specific terminology and abbreviations is the most difficult thing in the translation process. An important factor is also studying the structure of terms and abbreviations and their use in various contexts.

One of the characteristic features of medical language is the presence of acronyms, initialisms and clipped forms. With English having the status of the *lingua franca* of medicine, English acronyms enter other languages and are used both by medical professionals and patients, especially if no native acronym is commonly used in the local language e.g. MCV, TSH, INR, CRP, LDL, HDL etc. [2].

Abbreviations (which are especially coming from Latin) are some of the most often used elements in written and oral medical communication. Many terms, such as names of diseases and their treatment, names of chemical compounds are seldom used in their full, bulky form as it would interfere with effective communication. Wide popularity of abbreviations in the medical language, undoubtedly, provides economy of space and time in the emergency medical situation. Besides, abbreviations provide understanding only for health workers, making materials inaccessible for the patient that is in certain cases expedient for ethical reasons. However, quite often one abbreviation stands behind several medical terms that undoubtedly leads to the ambiguity of understanding and considerably complicates the translation. For example, abbreviation CF has about 20 medical meanings (Californium, Cystic Fibrosis and so on), as well as not medical meanings (Compact Flash – a device for saving data). The following is considered as the main ways of translating the English medical abbreviations: borrowing a foreign abbreviation with preservation of Latin writing; transliteration (presenting the literal structure of a foreign abbreviation by the Ukrainian letters; transcription (presenting the phonetic form of a foreign abbreviation by the Ukrainian letters); descriptive translation (in the absence of an equivalent abbreviation).

Polysemy and synonymy. The most desired feature in the terminology of any discipline is univocity, which means that one designation refers to one concept and that one concept receives only one designation – thus, with this kind of control over terminology, it would necessarily have two features: monosemy and mononymy (Soubrier 2002, 2014). Desired as they may be, these features are not always present in medical terminology, whose terms are, to a certain extent, polysemous, and – sometimes – synonymous. The examples of polysemous terms include:

inflammation: a physiological function, a clinical condition, a diagnosis (Soubrier 2014), all of which are expressed with Ukrainian «запалення»;

discharge: secretion («виділення») or release from hospital («випуска з лікарні»). [2, 4]

The same phenomenon can be observed in

translating from Ukrainian into English, where a single Ukrainian term may be expressed by many different English terms:

недостатність: серцева недостатність – heart failure; ниркова недостатність – renal failure; абсолютна ниркова недостатність – end-stage renal disease; амінокислотна недостатність – amino-acid deficiency; адренкортикальна недостатність – adrenocortical insufficiency.

Several synonymous terms are presented above in the section on eponyms, but they do not by any means complete the list of synonymous medical terms, which also includes e.g. *Hashimoto's thyroiditis* or "*chronic lymphocytic thyroiditis*", *osteoarthritis* also referred to as either "*degenerative joint disease*" or "*osteoarthrosis*" or "*degenerative arthritis*". This section is only a brief overview of certain features of medical language, which is the focus of more detailed research papers published in *Advances in Medical Discourse Analysis* edited by Gotti and Salager-Meyer (2006) or Vol. 4 No. 7 of JAHR (2013) devoted to medical language [2; 4].

Translation of the texts belonging to general scientific or medical subjects requires selecting a correct translation variant of the polysemantic term's meanings: excluding those relating to social and political texts, journalism and oratorical speech; the commonness of this category is due to the fact that the translated material is directed to forming or changing public opinion and due to its abundance with language elements of polemic: language cliches, rhetorical structures, literalisms, newspaper cliches, social and political terms, estimated words, slang and popular speech. Whereas, translation of medical texts require translating from one language into another of specialized medical publications and texts of private character which content is directly connected with the person's health. A special position of this category translation is defined by the elevated responsibility of a translator, increased requirements to the accuracy of the translation and observing confidentiality of private data, as well as pronounced heterogeneity of the used terminology [1; 3].

Medical translation includes translating the texts of the general medical and pharmaceutical direction, it is rightly possible to call medical translation one of the most difficult specialized translations and it is even possible to allocate it as a special type of translation activity. In the process of medical and pharmaceutical texts conversion a translator constantly compares a source text of the original with the translated variant, every time switching from one language to another. In this process the set of the translator's actions is divided into the actions relating to the source medical text and respectively to the translation text, i.e. in this process a translator at first perceives and understands the text of the original and then, on its basis, he forms the translated text. Thus, medical translation is made by a translator based on two interconnected stages of the translation process, namely: the first stage includes extraction of information from the original medical text, and the second stage is selecting the needed translation means and methods for implementing the medical translation [1; 5].

The extraction of information from the original medical text is the first stage of the translation process, which is related to informative translation.

Informative translation represents translating the texts which main function consists in informing some data, the information transfer; it makes no art and esthetic impact on the reader. Observing the clearness and strictness of a statement, refusal of indirect, descriptive designations of objects, wide use of stamps and stereotypes of special vocabulary is characteristic of informative translation, both in the English and in the Ukrainian languages. However more detailed analysis shows that strictness of using terms and habitual formulations is in general more peculiar to the Ukrainian special texts.

Therefore a translator quite often feels obliged to make «stylistic editing» of the original, to enter an exact term instead of a paraphrase, to explain what is specifically meant, to replace an author's construction with a more habitual stamp. A translator is to report fully and precisely the thought of the author, giving it the shape inherent in the Ukrainian special text and without transferring peculiar features of the English original to the Ukrainian text. In the English text there prevail personal forms of a verb whereas in the Ukrainian text there are more impersonal or indefinite-personal constructions. Prevalence of simple sentences which average over 50% of the total number of sentences in the text is characteristic of informative texts in English. At the same time the number of compound sentences is rather small. This phenomenon is unusual for the corresponding style in Ukrainian where compound sentences are used very widely.

To avoid mistakes when translating, it is necessary not to trust in the seeming coincidence of the meaning with a similarly sounding word in the target language, as well as to seek to seize all lexical and stylistic subtleties of both the source language and the target language. In the presence of the slightest doubt, both explanatory and special dictionaries should be used.

Medical texts are characterized by a peculiar building of sentences (the grammatical relations between words become clear only at the account of sense), the sentence structure (the problem of defining the logical accent in the sentence), an unsuccessful building of sentences is also possible, abounding with developed definitions, making it difficult to understand connection between the words. All this leads to ambiguity of the text being translated. Quite often the structure of an English sentence abounds with difficult grammar constructions (infinitive and participial phrases) complicating the definition of a logical accent in the sentence. From the point of view of grammar sentences can be divided into translated practically without changes, translated by means of the changed word order; requiring partial syntactic and lexical changes; requiring descriptive translation sentences that are difficult in every respect [1; 3].

Conclusion. Thus, the complexity of medical translation consists in the huge and promptly growing vocabulary of medicine, abundance of synonyms and idiomaticity of the professional medical language, prevalence of abbreviations in medical communication, grammatical difficulties of the English sentence. Successful performance of this kind of activity requires a close acquaintance with medicine. For this reason the best translators of medical texts are graduates of medical schools. Ideally, a medical translator would not be a medical professional,

but an especially trained translator, i.e. a linguist who underwent appropriate training, a view which is also supported by IMIA (2009: 4-5). According to IMIA (International Medical Interpreters Association), medical documents should be translated by professionals who have “a native or near-native, formal level of language proficiency, analytical capabilities, and deep cultural knowledge in the source and target languages” (2009: 3), other requirements include at least college level formal education covering

courses in translation theory and practice, proficiency in the source and target languages, expert knowledge of the subject matter terminology, terminology research skills and adequate writing skills. Other components of medical translator competence include: application of translation strategies, relevant procedures, conventions or standards, use of medical databases, text banks, dictionaries, CAT tools etc. as well as certain psycho-physiological features such as decision making, thoroughness, honesty etc.

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Аношкова Т.А.

Національний технічний університет України
«Київського політехнічного інституту імені Ігоря Сікорського»

ВПРОВАДЖЕННЯ ГЛОБАЛЬНОЇ ОСВІТИ У ВІТЧИЗНЯНИХ УНІВЕРСИТЕТАХ

Анотація. У статті розглядається поняття глобалізації та її вплив на глобальну освіту. Автор аналізує основні складові глобальної освіти та способи її інтеграції у навчальний процес. Спираючись на досвід іноземних країн, виділяються основні цілі глобальної освіти та підходи до навчання глобально компетентних студентів. У статті представлені знання, вміння, навички та цінності, які студент може здобути у процесі навчання. Проаналізувавши навчальні програми закладів вищої освіти, автор дає практичні поради щодо впровадження глобальної освіти.

Ключові слова: глобальна освіта, заклади вищої освіти, глобальна компетентність, навчальна програма, глобалізація.

Anoshkova T.A.

National Technical University of Ukraine
“I. Sikorsky Kyiv Polytechnic Institute”

IMPLEMENTATION OF GLOBAL EDUCATION INTO UKRAINIAN UNIVERSITIES

Summary. The article is devoted to globalization and its influence on global education. The author studies the main components of global education and ways of its integration into the educational process. Taking into account the experience of foreign countries, the main aims of global education and methodological approaches are distinguished. There are listed knowledge, skills, attitudes and values which a student can obtain in the process of education. Analyzing the curricula of higher educational institutions, the author offers some practical advice on the implementation of global education.

Keywords: global education, educational institution, global competence, curriculum, globalization.

Постановка проблеми. З розвитком інформаційних технологій та швидкою інтернаціоналізацією світових економічних процесів постала необхідність у підготовці фахівців, які готові зіткнутися із викликами сучасного суспільства та забезпечити сталий розвиток цивілізації для подолання екологічних та соціальних проблем, забезпечуючи світле майбутнє наступним поколінням.

Аналіз останніх досліджень і публікацій. Дослідження показують, що саме розвинуті країни першими зрозуміли необхідність впроваджен-

ня глобальної компетентності в освітній процес, тому найбільша кількість університетів, у яких широко представлені компоненти глобальної освіти знаходяться в США, Канаді та економічно розвинених країнах Азії.

Враховуючи вищесказане, нами був проведений аналіз праць американських, канадських та європейських освітніх організацій, таких як американська національна освітня організація World Savvy, корпорація Карнегі, північно-південний центр Ради Європи, міністерство освіти Квебеку тощо, вивчені програми північноамериканських університетів.