

## Artículo de investigación

**Features of translation of medical instructions from English and French languages into Russian (Pharmacological discourse)****Особенности перевода медицинских инструкций с английского и французского языков на русский язык (фармакологический дискурс)**

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**Abstract**

*The purpose* of the study is to reveal difficulties in translating instructions on the usage of medicines from English and French into Russian. Translation of medical instructions is a private form of medical translation that is in high demand. Each medicine should have a detailed description in Russian. With this document, a manufacturer guarantees to patient that subject to the prescribed standards, medicine will provide a certain effect that it is safe for life and health. The instruction is a kind of memo for a patient and a guarantee of the correctness of taking medicine. The authors of the article examined instructions for the use of medicines as genres of pharmaceutical discourse, highlighted the features of pharmaceutical terminology, examined ways to translate scientific terminology and vocabulary, analyzed translation techniques for transmitting vocabulary instructions for the use of medicines (translation of the instructions for the medicine «Sedalgin-Neo» from English into Russian, as well as instructions for the «Betaserk» medicine from French into Russian), errors were identified in their translation. The following research *methods* were used in the work: comparative typological method, empirical method, observation method, analysis and synthesis, a descriptive method, a method of comparative analysis of the original and translation, and generalisation of the obtained results. *The theoretical significance* of the study lies in the synthesis of theoretical material on the

**Аннотация**

**Цель** исследования - выявить трудности при переводе инструкций по применению лекарственных средств с английского и французского на русский. Авторы статьи изучили инструкции по использованию лекарственных средств в качестве жанров фармацевтического дискурса, осветили особенности фармацевтической терминологии, изучили способы перевода научной терминологии и словаря, проанализировали методы перевода для передачи словарного инструкций по использованию лекарственных средств (перевод инструкции к лекарству «Седалгин-Нео» с английского на русский, а также инструкции к лекарству «Бетасерк» с французского на русский), были выявлены ошибки при их переводе. В работе использовались следующие **методы** исследования: сравнительный типологический метод, эмпирический метод, метод наблюдения, анализ и синтез, описательный метод, метод сравнительного анализа оригинала и перевода, а также обобщение полученных результатов. **Теоретическая значимость** исследования заключается в обобщении теоретического материала по проблеме перевода инструкций по применению лекарственных средств. **Практическая значимость** исследования заключается в том, что его **результаты** могут быть использованы в практической

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problem of translation of instructions for the use of medicines. *The practical significance* of the study lies in the fact that *its results* can be used in the practical activities of translators of specialized literature and in the development of special translation courses of scientific literature from French and English into Russian. In addition, *the results* of this study can be used in the development of educational materials for students of medical specialties, the organization of advanced training and the exchange of teaching experience.

**Key words:** Medical discourse, medicine, pharmaceutical discourse, pharmacy, translation of instructions on medical usage of medicines from English and French into Russian.

## Introduction

### Problem setting

The translator's job is to remove any language barriers and enable doctors to fulfill their main task - saving the patient's life.

**Translation of medical instructions** is one of the most difficult and responsible types of translation, but at the same time it is very popular, as medical companies regularly offer new medicines to Russian pharmacies. This genre implies one hundred percent understanding of the original text by a translator and painstaking work with dictionaries and reference books. Here one cannot fantasize and guess, since the medical diagnosis, the prescribed treatment and, as a result, a patient's life often depends on the accuracy of translation.

**A pharmaceutical discourse**, close to medical discourse, often intersecting with it, is a type of institutional communication, a well-established type of communication in the professional field - the social institution of pharmacy, which can take place in the process of creating, researching, storing, manufacturing, dispensing and marketing medicines, and also search for natural sources of medical substances.

**Participants in pharmaceutical discourse** are addressees: a doctor, a pharmacist, a pharmacy technician (chemical technologist, medical manufacturer), a medical manufacturer (pharmaceutical company) and recipients: patients, pharmacy workers, potential customers.

деятельности переводчиков специализированной литературы и при разработке специальных переводческих курсов научной литературы с французского и английского на русский язык. Кроме того, результаты данного исследования могут быть использованы при разработке учебных материалов для студентов медицинских специальностей, организации повышения квалификации и обмена педагогическим опытом.

**Ключевые слова:** медицинский дискурс, медицина, фармацевтический дискурс, фармация, перевод инструкций по медицинскому применению лекарственных средств с английского и французского языков на русский.

Basic communication pairs: doctor - pharmacist, pharmacist - patient.

**The term "instruction"** is derived from the Latin "instructio", which means "device, instruction". Instructions for medicines describe their composition, features, determine the rules of usage. They are an important document through which a patient receives the necessary information about medicine.

The text of the instructions for the medical usage of medicine is one of the basic genres of pharmaceutical discourse and can be considered as the result of the discursive activities of its creators, transmitting knowledge to a consumer from the pharmaceutical scientific and professional field (Nosova, 2013).

**The texts of the instructions** operate simultaneously within two areas of special communication - pharmacy and medicine, that is, on the one hand, they contain information on the composition, pharmacological properties, characteristics of storage and dispensing of medicines, which is typical for the field of pharmacy, and on the other, they may contain a description of the pathological conditions of the human body, characteristic symptoms in certain diseases, recommendations for the usage of medicine in order to eliminate these symptoms, warning about the possible effects after its usage, etc., that is related to the field of medicine.

An important feature of texts of the instructions is the fact that they are not only carriers of scientific medical and pharmaceutical information, but also officially approved documents created in accordance with certain state requirements (2011).

The instructions are characterized by communicative accuracy, which is achieved due to the structure of text, terminology and stable turnovers (Antonova, 2011). A distinctive feature of the translation of pharmaceutical documents is the presence in the texts of specific terms and phrases that are absent in the Russian language of everyday communication.

Of course, on the one hand, this greatly facilitates the work of the translator, since many medical terms are borrowed from Latin or Greek and are international. On the other hand, translator of pharmaceutical texts, like any other, is faced, for example, with the problem of "false friends" of translator, but he must carefully and painstakingly check and double-check every word, as someone's life may depend on it.

Following L.N. Nosova (2013) we define communication in pharmaceutical discourse as mediated communication "between a team of authors (institute of pharmacy) transmitting information about the composition, method of administration of drugs, etc., on the one hand, and the addressee (doctors prescribing medicines, or patients who are consumers medical products), on the other hand" (Nosova, 2013).

### Literature review

One of the first researchers of medical discourse (clinical psychiatry) was the French philosopher M. Foucault (2013), who in his early works drew attention to the fact that clinical discourse is both a linguistic and medical phenomenon.

V.I. Karasik (2004), distinguishing between personality-oriented and status-oriented (institutional) discourse, highlighted in the latter, in particular, medical discourse.

Various aspects of medical discourse are considered in the work of many researchers. So, L.M. Alekseeva (2002) and S.L. Mishlanova (2003) investigated the theoretical foundations of medical discourse and medical terms, metaphors in the language of medicine, S.I. Madzhaeva (2012) studied the formation, development and functioning of medical terminological systems. G.A. Abramova (2003) attempted to describe the

basic properties and development trends of medical vocabulary. K.V. Akhnina (2016) conducted a study of networked medical discourse.

In the works of G.P. Burova (2008) pharmaceutical discourse is conceptualized as a special cultural code, and with the active participation of E.A. Korzhavykh (2005) created a special discipline for the preparation of pharmacists - pharmaceutical terminology.

N.Yu. Antonova's (2014) works are devoted to the study of the communicative accuracy of pharmaceutical discourse, the identification of participants in pharmaceutical discourse, and instructions as a special type of medical-pharmaceutical texts.

The psychological and psycholinguistic aspects of reading focused on subsequent translation of texts, as well as issues of tolerance formation as an important component of the sociocultural competence of a professionally oriented translator, are studied by a number of authors, for example I.V. Telezhko, Yu.N. Biryukova, V.B. Kurilenko (2019); A.V. Dolzhikova, V.B. Kurilenko, Yu.N. Biryukova, O.G. Glazova, R.A. Arzumanova (2018). Features and problems of medical translation worried such a famous translator as D.V. Samoilov (2018), who drew attention to unsuccessful translations of medical terms. The difficulties of medical translation (from English and French into Russian) are devoted to many works, for example, the study of M.V. Shirinyan and S.V. Shustova (2018).

However, in the works of these researchers, the issues of translation of instructions did not receive significant development.

### Theoretical framework

#### Advantages and disadvantages of translation of medical instructions

To translate instructions for medicines, you need to have a good understanding of medical issues.

**The advantages** of this type of translation is the presence of a large number of paper and electronic dictionaries and reference books, as well as the very contents of translated texts, because you can get a lot of important and necessary information from them. Here is an excerpt from an interview with professional medical translator Yekaterina Chashnikova (2016) on the Journal of the Translator on the topic of pharmaceutical translation:

- Which sources of information (dictionaries, textbooks, Internet sources) do you trust the most? Could you advise some of them to our readers?
- Speaking of dictionaries, I rarely use paper ones because I don't replenish the library. There are good basic dictionaries in Lingvo (although there are inaccuracies there too). I constantly use Multitran, but I check the terms found in Google (I focus on scientific publications, websites of medical institutions and pharmaceutical companies and so on). There are very few highly specialized dictionaries in medicine and pharmacy, therefore Multitran helps to set the direction of searches. I turn to the archives of the translation forums and the KudoZ section on ProZ.com. I even occasionally climb into my blog to recall a term. In my blog on the tag "Help resources" you can find posts with textbooks and help resources on various topics. I also keep an account on Twitter, where I post links to various useful resources. If there is not enough theoretical training, I advise you to read university textbooks in the necessary disciplines.

**The disadvantages** are the complexity and responsibility, since medical instructions abound not only with Latin names, but also with all kinds of abbreviations.

The translator of medical instructions should know that when translating, he must take into account not only the lexical features of medical instructions and choose the right ways to translate the information, but also a certain model of the instructions for the medicines of the country for which he is translating: if you compare the instructions to medicines in English and French, you can find the specifics of the pharmaceutical discourse inherent in each of languages.

For example, in the medical instructions in Russian, the information is addressed to both doctor and patient. Therefore, in accordance with the requirements for the design of such instructions, they without fail contain the section "Pharmacological properties" ("Pharmacokinetics" and "Pharmacodynamics"), as well as "Special instructions (effects on the body when working with precise mechanisms and when driving a car)". Therefore, when

translating French instruction into Russian, medical translator must find the missing information in special directories and include it in the Russian text.

### **Translation features leading to errors**

To create an accurate translation of medical instructions, you need to know the translation features that can lead to errors:

**Genre-stylistic.** Medical documents are formal business style. Despite the fact that translation technique differs from one specialist to another, all instructions are written in a verified language, even similar to each other, since when working with a document, the translator must comply with the language standard that is characteristic of this style.

**Precision precluding double interpretation.** For medicines, this is more than important. Each medicine is designed for a large audience, it gets to thousands of people - doctors, patients. All of them should understand the text of the annotation unambiguously.

**Terminology, the presence of stable momentum, cliché.** The standard translation of medical instructions does not allow any imagery of speech. All words in them are used in basic substantive meanings. Translators are required to adhere to a common terminology. Pharmaceutical expressions have an established form and rules for their use. Specialized dictionaries can be used as authoritative sources, and in especially difficult cases, consult with pharmacologists.

**Acronyms and abbreviations.** All special designations (ATX codes, chemical names of active substances, international nonproprietary names of the drug), organizations holding the patent for the drug, and manufacturing organizations, trademarks and other lexical units of instructions must be internationally accepted and meet the standards. Particular importance is attached to units of measure.

**National specifics of pharmaceutical discourse.** In each country, medical texts have their own language features, which medical translator must know perfectly.

**The originals of the instructions that translators work on contain information not only in the language of the manufacturer, but also in Latin.** Most often these are the names of therapeutic substances, pharmacological

preparations. Despite the international significance and the active use of duplicate English terminology, Latin is used everywhere in medicine. English medical terms are of particular difficulty, since English words are very ambiguous, many parts of speech are defined only in context, which creates the basis for errors. The use of Latin avoids this. The French language, which is closer to Latin by virtue of origin, uses a large number of Latin medical terms, even in everyday situations, this somewhat facilitates the work of a medical translator.

## Methodology

### Material of the experiment

In this work, we analyzed the translation of 2 medical instructions (Sedalgin-Neo, Betaserk) of the leading pharmaceutical companies, which was performed by students of Peoples' Friendship University of Russia (RUDN) Medical Institute, and their official translation from English and French into Russian to identify lexical and grammatical features, specific features of the "Instructions for medicine usage" genre, characteristic of pharmaceutical discourse of English-speaking and French-speaking countries. The choice of medicines is due to different dosage forms, their availability, their high demand in Russian pharmaceutical market, and the ability to compare translations for educational purposes.

A special course "Fundamentals of Translation" was organized at the Russian Language Department of RUDN Medical Institute. Pupils are foreign medical students of the fifth and sixth year of study from different countries: Jamaica, Namibia, Sri Lanka, Costa Rica, Nigeria, Mauritania, Morocco, Cameroon, etc.

As part of studying the topic of translating medical instructions from English and French into Russian, we analyzed the translation of some medicines.

### Participants of the experiment

Students the course "Fundamentals of translation" were divided into 4 groups of 12 people: 2 experimental groups (English and French) and 2 control groups (also English and French). Students of the experimental groups translated the instructions of these medicines without first studying the structure of the instructions and the correspondence of English / French terms to Russian, focusing on their knowledge. Classes were held in control groups,

during which the students studied the structure of the medical instructions, got acquainted with regulatory documents that determine possible variations of parts of the instructions and language tools, drew attention to typical errors in the translation of terms and units of measure, and trained in the translation of parts of instructions. Then, students in the control groups were asked to translate the instructions for the Sedalgin-Neo medicine (from English into Russian) and the Bétaserk 24 medicine (from French into Russian).

## Results and discussion

### Examples of analysis of the translation of some parts of the instruction for the medicine "Sedalgin-Neo" from English into Russian.

1. *PACKAGE LEAFLET*  
*SEDALGIN-NEO*  
*SEDALGIN-NEO*

Students determined that in this example the translator used transcription, and in the Russian version the phrase "Package leaflet" is omitted, which means "Instruction".

2. *ATX code: N02B*  
*Pharmaceutical group*  
*Analgesics and antipyretics. Anilides.*

Analgesic, antipyretic, anti-inflammatory, sedative

Active substance: comb. Drug

ATX Code: N02BB72

KFG: Combined drug with analgesic effect

Reg. Number: P No. 012928/01

Date of registration: 08.10.03

Owner reg. ID: BALKANPHARMA-DUPNITZA AD (Bulgaria)

Students determined that in this proposal, the translator, according to the rules for labeling medical instructions, added information about the manufacturer and owner of the registration number. He also translated the words "Analgesics and antipyretics. Anilides." As "Analgesic, antipyretic, anti-inflammatory, sedative" and used the addition, namely the word "sedative".

3. *It facilitates the penetration of analgesics through the blood-brain barrier and prevents from collapse development by stimulation of the vasomotor center. Codeine possesses analgetic and sedative effect and*

*potentiates the analgesic effect of Paracetamol and Analgin.*

Codeine phosphate has a sedative, analgesic effect and potentiates the analgesic effect of paracetamol and analgin.

Students noted that most likely there were certain customer requirements, therefore, in this proposal, the translator omitted the whole sentence, which refers to the effects of the drug on the body. The translator translated the following sentence using literal translation. The terms are translated according to the medical dictionary.

4. *Combination of separate components allows achieving potentiated analgesic effect and reduced adverse effects; in addition it decreases the possibility of addiction by using lower doses.*

The separate components of combination are absorbed from the gastrointestinal tract quickly and in high percentage.

The translator omitted these sentences in the "Action" section.

#### 5. Indications

*Pains of different origin- headache, toothache; neuralgia and neuritis; post-burn pains, post-operative and post-traumatic pains; articular, muscular and phantom pains, dysmenorrhea.*

Indications

Neuralgia, neuritis, migraine, pain: headache, toothache, rheumatism, phantom, post-burn, traumatic, postoperative; colds accompanied by pain and hyperthermia; dysmenorrhea.

Students determined that in this sentence the terms were translated according to the medical dictionary, however, the translator used a permutation of words. According to students, this is wrong, since the original gives indications for use and the diseases are placed in the order in which the medicine acts stronger. Most likely, the translator followed the instructions of the customer.

Based on this analysis of the finished translation of the medicine instructions, it can be said that the translator often uses the literal translation when translating, followed by a rearrangement of words in the sentence, followed by addition and omission. Quite often, we could observe the omission or addition of some of the information

in the annotations, perhaps these were the requirements of the customer of the translation.

#### **Examples of analysis of the translation of some parts of the instructions for the «Bétaserc 24» from French into Russian.**

Pharmacist students translated medical instructions in the classroom first time:

- 1) The beginning of the instruction has not been translated in a frame where the patient's special attention is drawn to the need to keep the instructions, consult a doctor or pharmacist, if you have questions about taking the medicine or in case of undesirable consequences of taking it, do not transfer the medicine to other patients. These important recommendations are at the beginning of each French instruction.
- 2) The instruction plan has not been translated, which helps the "naive" consumer (patient) to understand the main content of the instruction, the location of the information in it.
- 3) The sentence "*BETASERC 24 n'est pas le traitement adapté pour les formes de vertige suivantes: <...> vertige en relation avec une affection du système nerveux central*" was translated by some students as follows: "Betagistin is not an appropriate treatment for the following pathologies: < ...> Meniere's syndrome". We recorded a gross translation error, since Betaserc is used specifically for the treatment of Meniere's syndrome, hearing loss and tinnitus, as indicated in the official instructions for the medicine. Meniere's syndrome, or Meniere's disease, can be translated into French as *vertige auriculaire, vertige labyrinthique, vertige ménièreque, otocodine*.
- 4) The sentence "*BETASERC 24 ne doit pas être administré chez l'enfant et l'adolescent de moins de 18 ans*" was translated as follows: "Betaserc should not be taken by children and persons under 18 years of age." Firstly, the drug is not named fully (there is no indication of the dosage - 24), and secondly, the construction of *ne doit pas être administré* should be translated as follows: "do not prescribe / should not be prescribed / not recommended". Compare with the officially approved instructions. The translator added the

motivation to the text: “Betaserk® is not recommended for use in children under the age of 18 due to insufficient data on efficacy and safety.

- 5) The recommendations for pregnant and lactating women were translated by students without changing the discursive characteristics, therefore, the official text does not follow the official-business style that distinguishes the instructions for drugs, this fragment looks like a doctor’s advice, and not an officially approved instruction.

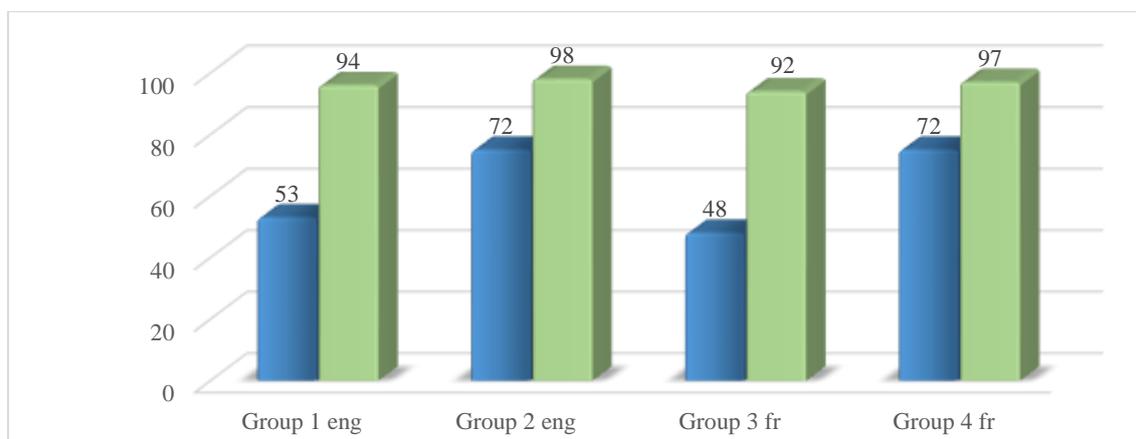
### Results of the experiment

As we see, the translation of medicinal instructions required the accuracy of decoding of abbreviations, notation, the correct interpretation of speech blocks, taking into account the linguistic, semantic, grammatical norms inherent in the texts of this industry, the characteristics of the pharmaceutical discourse inherent in texts in English, French, Russian.

Based on the analysis of medical instructions translated by students and partially presented in this article, we came to the conclusion that the translation of medical instructions is distinguished by the difficulty of forming a synonymous series in the absence of analogues in the Russian language, the presence of a complex syntactic structure of speech turns and terminological richness, difficulties of “transcoding” pharmaceutical discourse of different languages, which our students faced.

During the translation process, it was important to build the speech chain in strict accordance with the structure adopted for documents of this type. The phrases that differed in their emotional facelessness had to be interpreted, while maintaining the formal rigor of the statements, the semantic meanings of verbal units, and the terminological features of linguistic constructions.

The results of translations by students of the experimental and control groups are presented in Diagram 1.



**Diagram 1.** Dynamics of correct answers of four groups

Obviously, students from the control groups did much better with the final task of translating instructions, while students from experimental groups significantly improved the quality of their translations after analyzing the mistakes made and familiarizing themselves with the requirements for the instruction and the structure of this medical document.

### Conclusions

In this article, we examined the features of the translation of medical instructions from English

and French into Russian in the pharmaceutical discourse.

This analysis showed that pharmaceutical texts are characterized by saturation with narrow-profile terms, frequent use of Latin names, lack of emotional coloring, complexity of grammatical constructions and cliched information.

Translation of pharmaceutical documentation requires the accuracy of decoding of abbreviations, notation, the correct interpretation

of speech blocks, taking into account linguistic, semantic and grammatical norms.

The strict formal style inherent in pharmaceutical information documents in the Russian language must be observed. At the same time, it is important to accurately decode numerous abbreviations, Latin names of the components of the drugs, correctly translate the units of measurement, since the health of patients depends on this.

Summing up, once again we emphasize the importance of an adequate perception and understanding of the information in the text of medical instruction by the addressee who does not have special (medical / pharmaceutical) training.

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