

## MEDICAL TRANSLATION: A REQUIREMENT OF THE MODERN COMPETITIVE MARKET

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**Rezumat:** *Articolul își propune să examineze importanța dezvoltării competenței de traducere, în special, în traducerile farmaceutice care au devenit o cerere permanentă pe piața muncii competitive. Articolul are drept scop să explice unele aspecte și dificultăți ale procesului de traducere, prin prezentarea unui model de analiză comparativă a principalelor caracteristici stilistice și lexicale în limbile engleză și română a unui prospect farmaceutic.*

**Cuvinte-cheie:** *prospect, termen farmaceutic, traducere medicală, densitate lexicală, echivalență, integrare, transpunere, compensare.*

**Abstract:** *The article focuses on the importance of developing proficiency in pharmaceutical translation which has become a demand in today's competitive labor market. It aims at explaining some aspects and challenges of the translation process by presenting a comparative model analysis of the main stylistic and lexical features displayed both in English and Romanian pharmaceutical inserts.*

**Key-words:** *Insert, pharmaceutical terms, medical translation, one-to-one equivalents, lexical density, integration, transposition, compensation and translation loss.*

Pharmacology has recently been considered a challenging field for translators. In today's competitive translation market industry, a medical translator needs to be proficient in the field of pharmacology and have a good mastery of the specific features of the medical language to produce highly qualified translations. To achieve this expertise, the translator should be well-equipped with special knowledge of how language works at different levels in a text and how he/she can cope with translation difficulties. Therefore, this article aims at presenting a comparative study of the most obvious stylistic and lexical features encountered in pharmaceutical texts for several reasons:

1. inserts and/or labels are one of the most accessible, widely consulted and used types of medical texts that people all over the world read on a regular basis;
2. drug information printed on inserts is a major source of information for patients and it is usually available in several languages;
3. translating pharmaceutical texts requires excellent translation skills, knowledge in medicine and a lot of responsibility from the translator.

The present study will attempt to provide an illustrative analysis of the relevant stylistic and lexical features displayed in the insert for Clodifen (Diclofenac sodium) both in English and Romanian. It will also dwell on the importance of knowing these linguistic peculiarities when preparing future medical translators.

While dealing with medical language in translation, one should be mindful that it is a subtype of the scientific language and it is characterized by accuracy, objectivity, precision, lack of excessive metaphorical ideas and ambiguity. It employs one-to-one equivalents of medical terms to avoid any kind of misunderstanding and ensure success in cross-cultural communication.

The biggest part of the register used in pharmaceutical inserts is more or less known by laymen; yet, it is mostly aimed at various specialists in the field. Future medical translators should be aware of this fact and adjust their translations to meet the requirements set by the functional concept of such a text, including its format and the subject area described. The following examples come to highlight this fact. Let us compare the following common instances from the insert for Clodifen in English and their counterparts in Romanian:

- Acute pain syndrome – sindrom de durere acută;
- Renal colic – colici renale;
- Hepatic colic – colică hepatică;
- Rheumatic diseases of particular soft tissues – boli reumatice ale anumitor țesuturilor moi;

- Pains in case of vertebral column diseases – Dureri în cazul bolilor coloanei vertebrale;
- Posttraumatic and postoperative painful conditions and hypostases – condiții și ipostaze posttraumatice și postoperatorii dureroase.

As is seen, the stylistic register employed in the above examples is full of medical terms in both languages. However, this medical jargon is not identified only by the insiders of a medical group; it is also accessible to highly literate outsiders of the given group requiring some sort of expertise.

Comparing English and Romanian pharmaceutical inserts, it has been easy to notice that the majority of the sentences in both languages consist of affirmative nominal sentences or nominal word groups. They are traditionally found in the contraindication rubric, as in:

- Hypersensitivity to the active compound diclofenac or any other NSAIDs – hipersensibilitatea la acidul acetilsalicilic și alte antiinflamatoare nesteroidiene, care se manifestă prin apariția acceselor de astm bronșic, urticarie, rinită acută;
- Pathological changes of blood picture of not clear genesis – dereglări ale hematopoeziei de etiologie nedeterminată;
- Children and adolescents under 18 years old – vârsta sub 18 ani;
- Stomach and duodenum ulcer – ulcer gastric și duodenal.

In a similar way, one may come across quite an amount of verbal groups which are typical of the pharmaceutical language in English and which refer mostly to drug interactions with other medicine:

- with digoxin, fenitoină and other lithium drugs can cause increase of plasma level of these drugs – digoxină, fenitoină sau preparatele litiului – se mărește concentrația plasmatică a preparatelor indicate;
- with diuretics and hypotensive drugs may decrease pharmaceutical effect of these drugs – diuretice și remedii hipotensive – scade efectul farmacologic al acestor preparate;
- with potassium-sparing diuretics may cause hyperpotasemia – diureticele economisitoare de potasiu – crește riscul hiperkaliemiei;
- with acetylsalicylic acid decreases diclofenac plasma concentrations and increases risk of adverse effects – acidul acetilsalicilic – scade concentrația diclofenacului în sânge și crește riscul apariției reacțiilor adverse;
- with anticoagulants requires regular monitoring of blood coagulation – anticoagulante – este necesară monitorizarea testului de coagulare a sîngelui.

As is seen from the examples above, the medical translator does not indulge in rendering into Romanian the source language sentences by providing ambiguous meanings or longer sentences. The meaning in Romanian is exactly the same, especially, taking into account that scientific and medical lexical units are monosemantic and allow the grounds for literal translation. The translator tries to preserve the stylistic components of the English sentences, yet, he relies on the grammatical structures typical of the Romanian language in translation. That is why, in some cases the Romanian translation is a bit shorter and sometimes less wordy than the original text; the translator prefers dashes to indicate either a break in the narrative or to set off parenthetical statements, or to accurately reformulate the meaning stated in the source text.

Another interesting observation refers to the way some important points that entail certain stylistic effect are dealt with in translating pharmaceutical inserts. Thus, the following examples are very illustrative:

- Only for intramuscular introduction! Dose of the medicine is determined individually depending on the disease.  
– Se administrează numai intramuscular! Doza se determină individual în dependență de gravitatea maladiei.

Here, the specific English imperative sentence is marked by ellipsis and by an exclamation mark. The strong emotional stylistic load carried by the English imperative sentence is preserved in the Romanian version. The translator's decision is to render the specific emphasis expressed by the nominal imperative sentence; yet, he transposes this sentence into a typical meaningful exclamatory sentence in Romanian, resorting to literal translation. Thus, the translator takes into account the difference in the way of expressing English and Romanian warnings and instructions.

Another interesting example comes as follows:

- In heavy cases it is possible to prescribe 2 injections a day with an interval of a couple of hours, changing the parts of introduction. – În cazuri grave este posibilă administrarea repetată cu interval de câteva ore, schimbând locul injectării. Administrarea soluției injectabile se poate cu administrarea altor forme farmaceutice ale diclofenacului, fără a depăși doza nictemerală.

In terms of stylistic effects, both illustrative examples in English and Romanian render the same conceptual and referential information. However, the first striking difference lies in the use of outer partitioning and the second one relates to the length of the translated sentences in Romanian. They are much longer and more details are injected into them. It explains the things that the translator considers people may not understand well unless every detail is more explicit.

Let us consider a different example here as well:

- Administration of injections can be combined with other dosage forms of diclofenac, not exceeding a daily dose. The maximal daily dose is 150 mg. Duration of administration of injection form of Clodifen usually is from 1 till 5 days. – Doza nictemerală maximă constituie 150 mg. Durata tratamentului cu Clodifen în formă injectabilă constituie de la 1 până la 5 zile.

In this case, three short English sentences are integrated into two Romanian ones. They undergo slight modifications via transpositions, compensation and translation loss. The translated sentences are, nonetheless, significant features in the organization of style and are worth writing about. The most ‘simple’ type of sentence structure is where the sentence comprises just one independent clause. In Romanian version, there are two sentences, each containing a single clause apiece.

The source texts under examination present medicine from a scientific point of view, but also provide examples of documentation that typically accompanies medications sold in pharmacies. These texts provide curious cultural information, especially in terms of what is and what is not required in documentation for medications written in both English and Romanian [1, p. 153].

For example, comparing both the source and target texts, it was interesting to find out that all the pharmaceutical inserts have got special standard headings written in capital letters to emphasize the importance of the text. In both languages these headings are written in bold type, yet, the Romanian texts use some additional items and information which stand out as the first striking difference between the two texts.

Furthermore, both texts in English and Romanian take no less than two pages in length and the number of headings is the same in both languages. Thus, in English, there are nine headings and the Romanian version has also nine items, yet the focus of these items is a bit different, e. g.:

**ENGLISH SOURCE TEXT**

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COMPOSITION  
THERAPEUTIC INDICATIONS  
CONTRAINDICATIONS  
ADVERSE EFFECTS  
DOSAGE AND ADMINISTRATION  
DRUG INTERACTIONS  
PRECAUTIONS  
PREGNANCY AND LACTATION  
MANUFACTURED FORM

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**ROMANIAN TARGET TEXT**

PROPRIETĂȚI FARMACOLOGICE

**COMPOZIȚIA PREPARATULUI**

**INDICAȚII TERAPEUTICE**

CONTRAINDICAȚII

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DOZE ȘI MOD DE ADMINISTRARE

**INTERACȚIUNI CU ALTE MEDICAMENTE**

ATENȚIONĂRI ȘI PRECAUȚII SPECIALE DE UTILIZARE

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PREZENTARE, AMBALAJ

**PĂSTRARE**

It is rather obvious that cultural and pragmatic understanding of one and the same text in two different languages is just a little bit varied. On the one hand, it is made of similar points; on the other hand, it contains some additional information which each culture considers necessary for their consumers to know. In Romanian, we have *Proprietăți Farmacologice*” which is described in details in Romanian but which is totally missing in the English text. The translator, following the Romanian traditions of writing pharmaceutical inserts, considers this information to be relevant for Romanian speakers and provides it at the beginning of the text. Similarly, the information about *“Păstrare”* is very relevant for Romanian speakers, while it is not mentioned in English. One additional item is found in the English text: *“Adverse Effects:”* which might be encountered under a different heading; *“Atenționări și Precauții Speciale de Utilizare”* in Romanian covering a wider range of information that is not specified in English. However, the English insert provides the web site to be visited, whereas this information is absent from the Romanian text.

Generally, the Romanian version is longer than the original text due to the fact that the translated versions usually provide a more detailed account of facts which cannot be accessed by laypersons if they do not know English. Patients should consult these texts, especially, when they take such risks or try to benefit from drugs and administer them safely. Yet, translations differ from insert to insert as its content is ultimately determined by a few private firms that compile libraries of medication monographs to pharmacies. Sometimes this information is often incomplete and difficult for patients to read and understand. The translation from English/Romanian and Romanian/English varies as well, because of the different translation problems encountered by medical translators.

Analyzing various pharmaceutical inserts and labels, one may notice that apart from having a well-defined structure and style, these texts contain a specific vocabulary that is worth examining. Thus, a lexical analysis examines word length, word frequencies, keyword in context, and lexical density [3, p. 71] which every translator should be aware of.

Thus, the present study of pharmaceutical inserts reveals a clear preference for a greater number of nouns than verbs. These nouns have mostly Greek and Latin etymology and are formed by means of derivation with the help of diagnostic, operative and symptomology suffixes and prefixes; compounding and simple forms.

In most of the cases, the medical English vocabulary has one-to-one correspondence in Romanian and simple words are translated by means of their literal counterparts. There are a few English words that might cause some trouble while being translated into Romanian because of their polysemantic nature. The choice of the Romanian equivalent depends on the contextual meaning and on the translator’s skills and knowledge of the subject area under consideration. For instance:

- lactation – perioada de lactație;
- drug – medicament, drog, stupefiant, narcotic, marfă care nu se poate vinde;
- system – sistem, rețea;
- tract – tract, canal, sistem organic;
- process – proces, procedeu, desfășurare, evoluție;
- danger – pericol, primejdie, prăpădenie;
- introduction – introducere, vîrîre;
- tremor – tremor, fior, emoție.

**Compounds:**

**English**

blood picture  
 IM injection  
 blood coagulation  
 circulating blood  
 carton box  
 skin rash

**Romanian**

hematopoieză  
 injectare intramusculară  
 coagularea sîngelui  
 circulația sîngelui  
 cutie de carton  
 erupții cutanate

blood flow  
chicken pox

fluxul de sânge  
varicelă

Translating compounding requires more skills on the part of the translator, especially, taking into account that there is a difference between the English and Romanian image and connotation of words, as in:

- chicken pox – varicelă;
- hay fever – febră;
- athlete's foot – micoză;
- cold sore – herpes, inflamație, răceală;
- blood picture – hematopoieză;
- IM injection – injectare intramusculară;
- plasma level – nivelul plasmatic.

Moreover, some of the compound words are rendered into Romanian through simple lexical items:

- chicken pox – varicelă;
- hay fever – febră;
- athlete's foot – micoză;
- cold sore – herpes, inflamație, răceală.

None of the compound words in the inserts under analysis was hyphenated.

In pharmaceutical texts much preference is given, first, to derivative words, then, simple words and finally, to compound lexical items. For example, in the insert for Diclofenac, derivation is found in 59 lexical units; simple forms in 54 cases and compounding is encountered 16 times. Some of the examples are suggested below:

***Derivatives:***

<i>arthritis</i>	<i>artrită</i>
<i>aggravation</i>	<i>agravare</i>
<i>spondylitis</i>	<i>spondilita</i>
<i>osteoarthritis</i>	<i>osteoartrita</i>
<i>neuralgia</i>	<i>nevralgie</i>
<i>hypostases</i>	<i>ipostaze</i>
<i>dysmenorrhea</i>	<i>dismenoree</i>
<i>adnexitis</i>	<i>anexita</i>
<i>perimetritis</i>	<i>perimetritis</i>

The major bulk of medical vocabulary used in pharmaceutical inserts and labels consist of derivatives, that is, words built up with the help of affixation. These are mostly international medical/pharmaceutical words which stemmed from Greek and Latin and which are borrowed into the Romanian language as well. The only adaptation that the translator suggests is either to transliterate or transcribe them into Romanian.

There are two major categories of pharmaceutical terms:

a. Descriptive terms – describing shape, color, size, function, as in:

- *acute* – *acut*;
- *inflammatory* – ***inflamator***;
- *soft* – *moale*;
- *posttraumatic* – *posttraumatic*;
- *postoperative* – *postoperatoriu*;
- *painful* – ***dureros***;
- *infectious* – *infecțios*;
- *active* – *activ*;
- *non-significant* – *nesemnificativ*;
- *gastrointestinal* – ***gastro-intestinal***;
- *abdominal* – *abdominal*;
- *dermatological* – *dermatologic*;
- *renal* – ***renal***;
- *rare* – ***rar***;

- *separate* – ***separat***;
- *systemic* – ***sistematic***;
- *intramuscular* – *intramuscular*;
- *rapid* – ***rapid***;
- *maximal* – *maximală*;
- *toxic* – *toxic*;
- *careful* – *prudent*.

b. Eponyms, which literally mean putting a name upon something. Thus, a medical eponym is defined as any word related to medicine, whose name is derived from a person [2, p. 57]. It has been used to honor those who first discovered or described an anatomical structure or diagnosed a disease or first developed a medical instrument or procedure. For instance, in the insert under consideration one may come across the following eponyms:

- *Bechterew's disease* – *boala Bechterew*;
- *Crone disease* – *boala Crohn*;
- *Reiter's disease* – *boala Reiter*;
- *Stevens-Johns's syndrome*;
- *Liyel's syndrome*.

It is worth mentioning that in the same insert, only four eponyms have been partially translated and partially borrowed into Romanian: *Bechterew's disease* – *boala Bechterew*; *Crone disease* – *boala Crohn*, *Reiter's disease* – *boala Reiter*. The proper name has been left unchanged following one basic rule in translation. The other two English eponyms have been altogether omitted in the Romanian translation. One of the possible reasons for such an omission is that not all the eponyms are included in the available medical dictionaries or they do not have ready-made equivalents.

Examining a set of pharmaceutical inserts and labels, it was possible to see that a very limited number of verbs are used in such texts. In English, these are mostly dynamic and descriptive verbs and they do not change very much from one text to another. Few of them are static verbs. The most common of them are: *contain*, *show*, *report*, *observe*, *result*, *be possible*, *describe*, *note*, *determine*, *introduce*, *combine*, *be*, *cause*, *decrease*, *increase*, *require*, *develop*, *intensify*, *be necessary*, *apply*, *contraindicate*

In a similar vein, the same limited amount of verbs typical of pharmaceutical texts has been registered in Romanian. The majority of these action words are recurrent in many inserts and labels, only a small number of them change depending on the pharmacodynamic properties of the described drugs. Thus, in Romanian, one comes across the following verbs:

*manifestă*, *este determinate*, *a suspenda*, *a sista*, *a dezvolta*, *administrează*, *prezintă*, *joacă un rol*, *este posibil*, *a depăși*, *se poate combina*, *a constitui*, *se prescrie*, *e necesară*, *se mărește*, *poate se potențeze*, *a provoca*, *a plasa*, *a pastra*

As far as the lexical density is concerned, it can be used as an indicator of text type by measuring the number of content words used in a text, in our case in pharmaceutical inserts and labels. It is assumed that written texts tend to be more planned and more formal than spoken texts, and thus it is reasonable to assume that written texts are lexically denser than spoken texts.

Pharmaceutical texts are not only non-fiction texts, but also non-fiction texts with a heavy information load. For this reason, the lexical densities of pharmaceutical texts are considerably higher, depending on how lexical items are distributed in the grammatical structure. However, one important feature of pharmaceutical texts to be mentioned is that they are never too lengthy and do not contain irrelevant information.

Finally, it is worth mentioning that a thorough lexical analysis reveals a lot of interesting things that make the translator's job easier and more appealing. It points out that there are certain basic rules one should know before actually starting the translation of pharmaceutical inserts, such as: a good knowledge of medicine, of Greek and Latin medical/pharmaceutical words and affixes, the most common list of verbs used in suchlike texts and the structure of pharmaceutical inserts. It is especially important for people to understand what these pharmaceutical

words, terms and symbols mean because not following strict instructions could have negative consequences for those who take and use drugs to stay healthy.

As suggested in this article, a comparison of stylistic and lexical properties of English and Romanian pharmaceutical texts, and namely, inserts provides several interesting data for analysis. However, what needs to be singled out is the fact that these texts display certain differences due to the fact that there is no one-to-one correspondence between the syntactical structures of the English and the Romanian languages. Based on the above comparative analysis, the obtained results might be summed up in the following way:

Pharmaceutical inserts/labels have a compositional structure of their own.

- The proportion of nouns employed in pharmaceutical inserts/labels is bigger than that of verbs.
- There is a preference for derivatives and simple nouns there.
- A more consistent use of short sentences was displayed in the English texts than in the Romanian texts.
- A common usage of longer words was also evident in the translated texts.
- The translated texts exhibited low variation yet high frequencies of word usage. In terms of segmentation, the Romanian texts demonstrated a more diversified use of punctuation marks.

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