

# THE MEDICAL LANGUAGE AND ITS DIFFICULTIES OF UNDERSTANDING AND RECEIVING BY FOREIGN STUDENTS

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*Abstract: The medical language, as a specialized language, supposes a good knowledge of Romanian by foreign students, in this case – of the domain specific terminology. This language has one of the most stable and uniform vocabularies, which ensures an important lexical equivalence, given the necessity of its exact understanding by foreign Romanian speakers. Most of the time the terms taken from English for various medical problems become rescuers in the attempt of explaining certain senses, for while teaching Romanian as a foreign language English is considered a transition language, being known by the majority of the students. The language specialist thus acquires an essential role having as purpose the facilitation of the access of those uninitiated both to the knowledge of Romanian and the medical terminology in the specialized sense in conformity with the norm.*

*Keywords: medical language, terminology, Romanian, sense, vocabulary*

## **1. Introduction**

The medical terminology represents a vast and various ensemble of terms characterized by unicity and non-ambiguity, generally being mono-semantic, which essentially contributes to their unicity and to the meeting of the strictest condition, necessary to a scientific terminology. The medical language is strictly specialized even when it displays the tendency to break the enclosure of medicine by migrating to the common language through a larger usage in order to realize a non-ambiguous specialty communication with the major function of transmitting knowledge in a particular domain of professional activity. It is certain that the [specialized] medical language falls into the category of the “professional groups’ «languages»” (Coșeriu, 1998: 113-126).

The teaching of the specialized medical language to the foreign students stresses the lexical characteristics of the medical scientific texts, the teaching of the related terminology with all its particularities, aiming at the formation of study habits for this kind of texts. One must take into account the fact that only a consistent terminology luggage can ensure an overview of the medical terminology, its later recognition by the foreign students who speak Romanian, in the sense of a better receiving of the proper medical lectures.

Like other specialized languages, the medical language accomplishes its referential-objectual aspect through lexemes and specific lexical-grammatical structures, such as strictly specialized terms, the affluence of neologisms, the frequency of de-verbal nouns (nouns derived

from long infinitives), impersonal reflexive-passive phrases, of punctuation elements (parentheses) etc.

The scientific style bears a distinct mark, compared to other functional styles, particularly at the lexical level, where one encounters a specialized vocabulary, very elaborate and diversified, interesting at the syntactic level “through the frequency of redundant structures which contain linguistic and non-linguistic signs that orient the communication” (Irimia 1986: 123) and innovative at the word formation level. The scientific style, being a neutral, objective one, does not allow the manifestation of the expressive function of the language, having as defintory trait the referential-denotative function (Dominte, 2003: 83-103; Jakobson, 1998: 50-57; Coteanu, 1973).

The large number of words borrowed from other languages, acronyms, abbreviations or international words are just a few characteristics of the scientific style, the medical language perfectly fitting in this stylistic register, governed by the referential-denominative function and the meta-linguistic one (Irimia 1986: 103), the latter conferring it specificity compared to the other functional styles. Nevertheless one must not ignore the essence, the core of the medical terms having as support autonomous and non-autonomous lexical units of Latin-Greek origin. Greek and Latin supply mostly mono-semantic lexical units thus establishing the basis of specialized language. This situation can only be a certain, coherent and unchanged source of older medical terms or of extraction or creation of new ones. It is true that an advantage for English speakers is also the medical terms (*Ex. screening*) relatively recently added to Romanian and easier to understand by the foreign students, being encountered in the international medical system. These terms which surpass the conservative tradition, through the international cliché, through the Anglo-Saxon lexical-semantic element are not adapted to the phonetic system of Romanian, their role being to cover the terminological holes, under etymological aspect.

## 2. The medical language – understanding and receiving

The medical language, as a functional variant of the scientific style, has a whole series of common traits with the special register of literary Romanian, but also distinguishes itself through numerous particularities which can only complicate the correct understanding of the medical terms by the foreign students. The particularities of the scientific style, specific to the medical language, can be classified at 4 levels: *phonetic, morphological, syntactic, and lexical*.

At a **phonetic** level, as an expression of the cumulative character of the conceptual knowledge, one may notice a tendency of term internationalization, achieved especially through the absorption of a large number of neologisms which sometime are, sometimes are not phonetically adapted. In the examples below the two medical terms *sprouting* and *stroke* were taken from English without being adapted to the Romanian phonological system.

„După o leziune, în sistemul nervos apare fenomenul de **“sprouting”** (de creștere, încolțire, germinare), ce constă în creșterea prelungirilor neuronale (dendrite, axon terminal, nod Ranvier) prin extensie protoplasmatică” (Sîrbu E. 2008: 59). „Incidența crecută a HTA reprezintă un semnal de alarmă, existând o corelație directă între severitatea HTA și frecvența AVC. De asemenea, scăderea HDL- colesterolului ar fi corelată cu severitatea **stroke**-ului” (Sîrbu E., 2008: 92).

Therefore it is not accidental the fact that the Anglicization of the medical terms with Latin etymon has represented a process beneficial to the easy decryption of the specialized language by foreign students. A few examples of medical and pharmaceutical terms are relevant in this sense:

lat. *acutus* > engl. *acute*; lat. *adjuvans* > engl. *adjuvant*; lat. *agglutinare* > engl. *agglutination*; lat. *ampulla* (vas mic pentru ulei sau parfum) > engl. *ampulla*; lat. *angor* > engl. *angor*; lat. *balsamum* > engl. *balsam*; medieval lat. *bronchia* > engl. *bronchus*; lat. *calculus* > engl. *calculus*; lat. *calyx* > engl. *calix*; lat. *capsula* > engl. *capsula*.

The adoption of Anglicisms/Americanisms to the medical language is one of the causes of extra-linguistic nature justifiable through the evolution of the medical science. The linguistic factors are plurivalent: the absence of a mono-semantic Romanian term, breviloquence, international circulation. The anatomic terms which define the cardiovascular system: rom. *sept interatrial* (cf. engl. *interatrial septum*); rom. *valvă aortică* (engl. *aortic valve*); rom. *circulația coronariană* (cf. *coronary circulation*). Diagnosis terms: rom. *malformații congenitale ale inimii* (engl. *congenital anomaly of heart*). Terms for diagnosis tests and procedures: rom. *imagine de medicină nucleară* (engl. *nuclear medicine imaging*). This resemblance almost identical between certain actual diagnosis wordings and their English translation only helps the foreign student to better understand the explained notions. Another way to access the medical system at the level of understanding of those outside the system is the usage of synonymy, precisely to explain medical terms specific to a disease in the register of a common language, generally valid. For example, in the case of medical semiology and diagnosis, the denomination of the symptoms, of the reactions or of the diseases develops synonymic series which fall into different registers of the language: *shiver* = involuntary shaking; *piloerection* = goose bumps; *apnea* = respiratory arrest; *heterotrophy* = *strabismus* = squint, crossed eyes; *pruritus* = itching; *paresthesia* = tingle, numbness; *varicella* = chicken pox; *pneumonia* = *pulmonary congestion* = inflammation of the lungs; *tonsillitis* = *quinsy* = inflammation of the tonsils; *cervical spondylosis* = the wear of the articulations of the neck.

The most often encountered generic terms having a value of determinant term and which constitute a synonymic series are: *sickness*, *disease*, *malady*. The following terms are also generically used:

- *syndrome*: “the totality of signs and symptoms that occur during a disease, giving its character” (*dexonline*),

- *tumor*: “a newly formed mass of tissue which grows inside an organism through the exaggerated, pathological multiplication of cells” (*dexonline*).

- *edema*: “pathological retention of fluid into the tissues of the organism, especially into the interstitial tissue” (DM 2011: 294).

Another drawback for the correct receiving of the message by foreign medicine students are **abbreviations** and **acronyms** in the medical system, which for the connoisseurs are nothing but a practical and economic means of expressing medical techniques or maladies, thus offering “the possibility of an easy utterance” (Stoichițoiu-Ichim 2008: 43). In this way, in the medical

terminology one uses abbreviations for the designation of the diverse medical techniques for investigation: ACG (*angiocardiology*), C.T. (*computed tomography*), RMN (NMR) (*nuclear magnetic resonance*), EKG (*electrocardiogram*), EEG (*electroencephalogram*), IRM (MRI) (*magnetic resonance imaging*); MRF (MRP) (*micro-radio-photography*). At the same time, in the case of different maladies or viruses a very large number of acronyms are inventoried respecting the correspondence of each letter in the reading succession (abbreviation) in Romanian: AVC (*accident vascular cerebral - cerebrovascular accident*), HTA (*hipertensiune arterial - arterial hypertension*), LES (*lupus eritematos sistemic*), SIDA (*sindromul imunodeficienței dobândite - Acquired immunodeficiency syndrome*), TBC (*tuberculoză - tuberculosis*), TOC (*tulburare obsesiv-compulsivă - obsessive compulsive disorder*), SAPHO syndrome (*sinovită + acnee + pustuloză + hiperostoză + osteită - synovitis + acne + postulosis + hyperostosis + osteitis*) or the acronym in English: ADHD (*Attention Deficit Hyperactivity Disorder*), HBV (*hepatitis B virus - virusul hepatitei B*), ECHO (*Enteric Cytopathogenic Human Orphan Virus*), HIV (*human immunodeficiency virus - virusul imunodeficienței umane*) etc.

Adriana Stoichițoiu Ichim reminded that “the term *abbreviation* is used in the current language, even in the linguistics terminology, with the generic meaning of «shortening a word or group of words» and groups «diverse linguistic facts» (Stoichițoiu Ichim 2001: 37). Unlike other languages, the medical language largely uses abbreviations and acronyms, given the complexity of the syntactic groups existing in this domain. There is the category of symbols which are conventional abbreviating signs used particularly in chemistry, physics and mathematics and which became a common place in the medical and pharmaceutical terminology. In comparison with abbreviations and acronyms, these signs generate confusion due to polysemy, the disambiguation taking place only in context. The symbols existing in the medical language are signs with a very stable trait, for referents show a great stability.

Also, from a stylistic point of view, one notes specific characteristics in the usage of **punctuation** (the use of specific signs: slash, accolade, parentheses, asterisk, double parentheses, colon etc.). The use of parentheses is a frequent stylistic means encountered in the written medical text, both to enumerate, explain a phenomenon, a symptom, and to underline the Latin designation of organs or parts of organs.

For example, in the following fragment, parentheses are used for the enumeration of all the systems of the human body:

*“Several organs having a similar structure and perform a major function (circulation, respiration, etc.) constitute a system (nervous system, endocrine system, osseous system, muscular system, digestive system, respiratory system,*

*circulatory system, excretory system and reproductive system*) (Biriş, 2015: 12.).

Most of the times, in the anatomic texts, the authors specify in the description of an organ or of a part of an organ also its Latin designation:

*“The long bones are those whose length largely surpasses their width and thickness and mostly form the skeleton of the members: humerus, radius, cubitus, femur, tibia, peroneus.”* (Biriş, 2015: 45.)

Unlike the literary style, the stylistic medical register does not exist a rhythmic organization of the phrases, compared to the artistic style, due to the specific terminology, the neologism borrowings, the compound words.

The **morphological** particularities of the medical terms are less emphasized in the specialty literature. There is a large number of abstract nouns, but also proper names, of which most have become components of the medical terms (B. Alzheimer, B. Marfan, B. Parkinson, Papanicolau test, Weber syndrome, etc.). The use of the personal pronoun is also limited, most of the time, to the first person plural (*we remark, we notice, we treat, we diagnose, we underline, etc.*) in the written version of the medical language, precisely to emphasize a certain scientific authority in the domain. The adjectives, broadly used in specialty medical texts, play a decisive part in the as exact as possible description of the various symptoms, diseases, anatomic parts:

*“The congenital cardiac diseases (the septal ventricular defect or septal atrial defect, the persistence of the arterial duct, aorta coarctation, pulmonary artery stenosis, aortic stenosis) may manifest through syncopal attacks with convulsive crises, transitory ischemic attacks, cerebral strokes manifested through hemiplegias, aphasias, mental retardation”* (Sîrbu E. 2008: 22).

Verbs are preponderantly used in the indicative present, one very often encountering the impersonal reflexive (*one manifest, one recommends, one disposes, one shows, one indicates, one flexes, one executes, one avoids, one performs* and others) and the verbal forms of the passive voice (*is mobilized, are attenuated, is recommended* and others). Such verbal forms, as well as the absence of the interjection, denote the neutrality of the style.

At a **syntactic** level the medical discourse is not characterized by optative, exclamatory or interrogative sentences, unanalyzable phrases or the syntactic dislocation, which facilitate the understanding of the message by the foreign students. In exchange, the length of the enunciations differs, from

complex sentences to ample phrases, in order to minutely describe a process, an anatomic organ, a symptom:

*“The digestive system is formed by the totality of the organs having as main functions the digestion and the absorption of the food and, at the same time, the excretion of the food residues”* (Biriş, 2015: 91).

One aspect that explains the complex phrasing in the medical texts is represented by the numerous enumerations:

*“The head muscles, according to the function they perform, are grouped in: mimic muscles (or skin muscles), the eye ball muscles and masticatory muscles”* (Biriş, 2015: 62). Also specific to the medical texts is the use of percentages as well the frequency of the *gerund, infinitive and participle phrases*: *“Blood is the red colored fluid that circulates inside the circulatory tree representing approximately 8% of the body mass. Blood is constituted by figurate elements and plasma. The three types of figurate elements representing 45% of the sanguine volume are: the red globules (red cells or erythrocytes), the white globules (leukocytes) and the sanguine plaquettes (thrombocytes)”* (Biriş 2015: 121).

What may seem surprising, for a correct expression of the foreign students within the medical language it is vital to have a deep knowledge of Romanian, in general, especially of prepositions, the use of the dative and the genitive, of the verb, etc. As for the prepositions that are so often found in the medical texts, *de, din, dintre* - are three prepositions that require an adequate usage. The preposition *de* has a mandatory median positioning between the numeral larger than 19 and the noun (20 + *de* + noun) - *The study included 63 patients*. In the tables that disclose certain data, it is sometimes permitted to omit the preposition *de*. The symbol % requires the prepositions *din, dintre*. Thus: a) % + *din* + inanimate nouns - *În 30% din cazuri s-a înregistrat cefaleea (Cephalalgia was registered in 30% of the cases.)*

b) % + *dintre* + animate noun - *10% dintre pacienți au acuzat vertij. (10% of the patients complained of dizziness.)*

The preposition *dintre* is also recommended in structures such as: *una dintre* (not *din*) *problemele fundamentale este...* (one *of* the fundamental issues is...); *unul dintre* (not *din*) *factorii trigger este...* (one *of* trigger factors is...); *o mare parte dintre* (și nu *din*) *pacienți* (most *of* the patients) etc. The verbs *to influence, to indicate* do not suppose the use of the preposition. Nevertheless, the wrong use of the preposition (*la=at, asupra=over*) is rather frequent in some texts of medical terminology.

There can be many examples of this kind and unfortunately prepositions are wrongly used even by Romanian native speakers because of an incomplete knowledge of the language. It is precisely why, beyond accessing a scientific language, for example the medical one by the foreign students, the latter should master a minimal knowledge of the literary language.

### 3. Conclusions

The Romanian medical terminology is grafted on the thesaurus of roots and affixes of Greek–Latin origin, the forms thus obtained being easily integrated and easily adapted to any language. The medical concepts are updated through terms which have developed connotative senses, through the semantic extension of the units taken from the European cultural sphere. This language has one of the most stable and uniform vocabularies, which ensures an important lexical equivalence, taking into account the necessity of its most correct understanding by foreign Romanian speakers. Most of the times the terms taken from English for diverse medical issues become saviors in the attempt of explaining certain sense, for while teaching Romanian as a foreign language English is considered a transition language, being known by the majority of the students. The language specialist thus acquires an essential role having as purpose the facilitation of the access of those uninitiated both to the knowledge of Romanian and the medical terminology in the specialized sense in conformity with the norm.

In the medical field, as well as in other spheres of the human sciences, the structure of the vocabulary is based on a considerable amount of fundamental concepts. The respective style does not infirm the internationalization tendency that guides its evolution, the synchronization with the universal terminology being achieved at the general level of the process of formation and enrichment of the vocabulary. Referring to the main functional traits of the scientific style in literary Romanian, Doina David shows that:

*“The scientific terms tend to integrate into systems that the scientists want coherent and universal, being motivated from a perspective which surpasses the limits of the national idiom, most often through the internal form they have”* (David 1986: 130).

### BIBLIOGRAPHY

Biriş, Gabriela, *Limba medical. Anatomie*, Bucureşti, Editura Universităţii din Bucureşti, 2015.

Coseriu, Eugenio, *Textos, valores, enseñanza* (1998), în Eugenio Coseriu, Óscar Loureda Lamas, *Lenguaje y discurso*, EUNSA, Pamplona, 2006.

Coteanu, Ion, *Stilistica funcţională a limbii române. Stil, stilistică, limbaj*, Bucureşti, Editura Academiei, 1973.

David, Doina, *Stilul ştiinţific al limbii române literare. Caracterizare generală*, în *Buletin informativ metodico-ştiinţific*, III–IV, Timişoara, TUT, 1986.

Dominte, C., *Funcţiunile şi caracteristicile definiţiei ale limbajului*, în *Lingvistică Generală*, coord. Zamfira Mihail, Bucureşti, Ed. Fundaţiei România de Măine, 2003

Irimia, D., *Structura stilistică a limbii române contemporane*, București, Editura Științifică și Enciclopedică, 1986.

Jakobson, Roman, *Funcțiile limbii*, în *Crestomație de lingvistică generală*, ediție îngrijită de I. Coteanu, București, Editura Fundației România de Măine, 1998.

Sîrbu, Elena, *Contribuții la studiul neurorecuperării în accidentul vascular cerebral ischemic*, Timișoara, Editura Eurobit, 2008.

Stoichițoiu Ichim, Adriana, *Vocabularul limbii române actuale: dinamică, influențe, creativitate*, București, Editura All, 2008.

DM – *Dicționar de medicină*, (traducere din limba franceză *Le Petit Larousse de la médecine* de Iulia Anania și George Anania), București, Grupul Editorial Univers Enciclopedic Gold, 2011.

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