

ROMANIAN MEDICAL TERMS WORD FORMATION: DERIVATION

Simona Nicoleta STAICU
“Victor Babeș” University of Medicine and
Pharmacy Timișoara
(Romania)
10.52846/SCOL.2022.1-2.19

Abstract

Our research paper is focused on Romanian medical terminology and the analysis tries to emphasize the morpho-lexical level from a linguistic point of view, namely, word formation, especially derivation. A larger number of derived or compound medical terms have already been borrowed from different languages, a lesser part being the result of internal ways of structural terms formation. Our methodological approach exemplifies derivation and back formation as means of medical term structures.

Keywords: *medical terms, derivation, back formation, borrowings, compounding*

Résumé

Notre recherche se concentre sur la terminologie médicale roumaine et l'analyse tente de mettre l'accent sur le niveau morpho-lexical du point de vue linguistique, à savoir la formation des mots, en particulier la dérivation. Un plus grand nombre de termes médicaux dérivés ou composés ont déjà été empruntés à différentes langues, une moindre partie étant le résultat de moyens internes de formation des termes structurels. Notre approche méthodologique illustre la dérivation et la dérivation régressive comme moyens de structures de termes médicaux.

Mots-clés: *termes médicaux, dérivation, dérivation régressive, emprunts, mots composés*

1. Theoretical approaches

Since borrowing is a consequence of cultural contact between two language communities, this process may be reversible, but, most of the times, there is a certain asymmetry between the source language and the target one, meaning that the number of borrowed words, in most cases, is higher than those entered from the mother tongue into the foreign language. As far as medical terms are concerned, we have

identified one-way direction of lexical units borrowed from a prestige language towards the native one.

This one-way influence of a language with international cultural-scientific prestige – such as French or English – on the Romanian language has manifested itself and manifests itself with intensity in the medical language as well. In turn, these languages also felt the beneficial influence of Greek and Latin, from which they borrowed basic terms in the medical domain.

Considering such, unidirectional, borrowing words, the receiving language community benefits from some notable advantages, in particular the semantic richness of the source language, through which the borrowed terms are incorporated into the lexical system of the receiving language, adapting to the new language codes.

Terminology, therefore, “*actively contributes to the production, accumulation, synthesis and generalization of knowledge about the essence of things, phenomena and processes in nature, society and thought*” (Berejan 2000: 21).

After detailed research on medical vocabulary, we came to the conclusion that the number of medical terms, as well as those in other specialized languages, is growing impressively, the Romanian language having different ways of enriching vocabulary, in general, as well as specialized vocabulary, in particular.

Scientific terminology, including medical terminology, raises a number of linguistic problems, one of the most complex being that of the formation, evolution and contribution of terminological units in the systems related to sciences.

Two categories of terminological units can be highlighted: terms of popular origin, national in point of their formation and use, and cultural terms, of scientific origin, many of which are international in nature (Berejan 2000: 21).

The Romanian language is a dynamic and open language to any changes. Borrowing words, taking over new, unknown meanings, but especially the “migration” of some words from the specialized lexicon to the common lexicon, exposes speakers (differently trained) to intense and complex lexical “pressures” (Bidu-Vrănceanu 2000: 10).

2. Mixed derived medical terms

This type of derivation implies both suffixes and prefixes added to the main root of the word at the same time. The following medical terms were already borrowed having this particular derived form:

- *periflebită* (<fr. *périphlébite*) – noun which defines inflammation of the connective tissue around a vein (DM 2007: 803):

prefix: peri- (<gr. *peri* “around”) + **root:** fleb- (<gr. *phleps, phlebos* “vein”) + **suffix:** -ită (<gr. *ites, itis* “resembling, belonging to” which indicates an inflammation);

- *hiperlipidemie* (<fr. *hyperlipidémie*) – noun defining the increase above normal blood cholesterol levels (DM 2007: 562):

prefix: hiper- (<gr. *hyper* “much more, excessively”) + **root:** lipide- (<gr. *lipos* “fats”) + **suffix:** -mie (<gr. *haima*, -*atos* “blood”: content in the blood of a compound, in this case, cholesterol);

During our analysis, we encountered numerous examples of medical terms that entered the Romanian language and were formed in the source languages after this type of derivation: *agammaglobulinemie* (<fr. *agamma-globulinémie*), *dezalcooliza* (<fr. *désalcooliser*), *electroencefalogramă* (<fr. *électro-encéphalogramme*), *hipercolesterolemie* (<fr. *hypercholestérolémie*), *laringotraheită* (<fr. *laryngotrachéite*), *traheobronhoscopie* (<fr. *trachéobronchoscopie*) etc.

3. Back formation in medical terminology

Derivation can be contrasted with inflection, in that derivation can produce a new word (a distinct lexeme) but isn't required to change this, whereas back formation produces grammatical variants of the same word. Generally speaking, this type of derivation applies in more or less regular patterns to all members of a part of speech, including medical terms. The following types are to be found in medical texts:

- new words formed by contrasting the suffix (verb to noun): *a auzi* < *auz*, *a drenea* < *drenaj*, *a fractura* < *fractură*, *a implanta* < *implant*, *a masa* < *masaj*, *a peria* < *periaj*, *a detartra* < *detartraj*, *a transplanta* < *transplant*, *a voma* < *vomă* etc.

- verb derivation by adding a suffix; e.g. *-ație* denoting actions, medical processes: *inflamație* > *a (se) inflama*, *obturație* > *a obtura*, *operație* > *a opera*, *palpitație* > *a palpita*, *regurgitație* > *a regurgita*, *respirație* > *a respira* etc.

- noun derivation, specialists, derived from medical specialities (suffix *-ie*): *stomatolog* < *stomatologie*, *dermatolog* < *dermatologie*, *nefrolog* < *nefrologie*, *cardiolog* < *cardiologie*, *neurolog* < *neurologie*, *radiolog* < *radiologie*, *chirurg* < *chirurgie* etc.

4. Types of compound medical terms

Compounding is the process of word formation that creates compound lexemes, occurring when two or more words or signs are joined to make a longer word or sign, having a completely new meaning. The meaning of the compound may be similar to or different from the meaning of its components in isolation. Composition is done by joining the terms (Ro. *parataxă*) or by fusing them to make a longer word, or two words having a hyphen (Coteanu/ Bidu-Vrănceanu 1975: 209-211). It has to be noted that most of these terms have been borrowed as such from the source languages:

- **compound agglutinated terms:** *adenopatie, amigdalectomie, bronșectazie, cardiologie, cardiovalvulotomie, dermatovenerologie, enteropatie, farmacologie, gastroenterocolită, hemoleucogramă, hemoragie, hernioplastie, ileorectostomie, imunoendocrinologie, laparoscopie, laringotraheită, mamografie, metroelitrografie, nefrotomografie, neuroendocrinologie, osteoarticular, otorinolaringologie, periapendicită, psihoterapie, radioanestezie, stafilococ, tomografie, traheobronhoscopie, vasodilatație* etc.

- **compound hyphenated terms:** *cardio-pulmonar, genito-urinar, maxilo-facial, medico-farmaceutic, medico-legal, medico-sanitar, scapulo-umeral, toraco-abdominal, uro-genital, utero-intestinal, utero-ovarian, utero-vaginal, vagino-uretral, vulvo-vaginal, vulvo-vaginită* etc.

Medical vocabulary is also rich in compound terms which have Romanian internal word formation, as in: *medico-farmaceutic, medico-legal, medico-sanitar, medic-șef, soră-șefă*.

5. Thematic compounding

At the intersection of derivation and composition there are the formations with the so-called thematic prefixes (ro. *prefixoide*), which the authors of the treaty *Formarea cuvintelor în limba română* consider *elements of composition* (Ciobanu/Hasan 1970: 19-23). Originally being proper words (from Latin or old Greek), endowed with meaning, their lexical value is better shaped and imposes itself more strongly in terms of the semantic structure of the units to which they belong.

We can notice quite a lot of thematic prefixes (or false prefixes) that enrich the Romanian medical vocabulary: **arterio-** “arteră”: *arterioflebită* (<fr. *artério-phlébite*), *arterioplastie* (<engl. *arterioplasty*), *arteriosclerotic* (<it. *arteriosclerotico*); **bronho-bronhi-** “bronhie”: *bronhodilatație* (<fr. *bronchodilation*), *bronhopulmonar* (<engl. *bronchopulmonary*), *bronhiolită* (<fr. *bronchiolite*); **cerebro-** “creier”: *cerebrotomie* (<fr. *cérébrotomie*), *cerebrofiziologie* (<engl. *cerebrophysiology*), *cerebroscleroză* (<fr. *cérébrosclérose*); **dermo- derma-** “piele, tegument”: *dermatologie* (<fr. *dermatologie*), *dermatoză* (<fr. *dermatose*), *dermopunctură* (<engl. *dermopuncture*); **hemato-** „sânge”: *hematologie* (<fr. *hématologie*), *hematoscop* (<fr. *hématoscope*), *hematoză* (<fr. *hématose*); **organo-** “organ, organism”: *organogenie* (<fr. *organogenie*, <engl. *organogeny*), *organotrop* (<fr. *organotrope*, <germ. *Organotrop*), *organotomie* (<fr. *organotomie*); **polio-** “cenușiu, materie cenușie”: *poliomielită* (<fr. *poliomyélite*), *polioplasmă* (<fr. *polyoplasme*); **strepto-** “streptococ”: *streptocemie* (<fr. *streptococcémie*), *streptomycină* (fr. *streptomycine*); **viro- viruso-** “virus, virotic”: *viroză* (<fr. *virose*), *virologie* (<fr. *virologie*), *virusolog* (<fr. *virusologie*) (DM 2007).

The existence of numerous Greek-Latin roots in the terminological lexicon, in which two or more such elements are joined, has led to the emergence of new terms (Chiș 2001: 197).

Some prefixing elements, of Greek or Latin origin, derive from other disciplines or have a certain semantic value, which helps to form new terms on the border between two disciplines: *electrocardiogramă*, *hidrocefalie*, *biosinteză*, *chimioterapie*, *telecobaltoterapie*. Such false prefixes have a meaning that is characteristic of other disciplines with certain values: *bio* < biologie, *hidro* (“apă”) < hidrologie, *tele* (“la depărtare”) < telecomunicații, *electro* < electric etc.

From a lexical point of view, in the category of borrowed medical terms there are numerous compound words, most of which, around the false prefix:

a) medical terms formed by two or more thematic compounds: *angiografie* (*angio-* + *-grafie*), *arterioflebografie* (*arterio-* + *flebo-* + *-grafie*), *angiocardiopneumografie* (*angio-* + *cardio-* + *pneumo-* + *-grafie*), *bronhopneumopatie* (*bronho-* + *-pneumo-* + *-patie*), *cardiovalvulotomie* (*cardio-* + *-valvulo-* + *-tomie*), *colecistocolostomie* (*cole-* + *cisto-* + *colo-* + *-stomie*), *dermatovenerologie* (*dermato-* + *venero-* + *-logie*), *endoscopie* (*endo-* + *-scopie*), *ecoencefalografie* (*eco-* + *encefalo-* + *grafie*), *farmacologie* (*farmaco-* + *-logie*), *fotolaparoscopie* (*foto-* + *laparo-* + *-scopie*), *gastroragie* (*gastro-* + *-ragie*), *gastroenterostomie* (*gastro-* + *entero-* + *-stomie*), *hematologie* (*hemato-* + *-logie*), *hemoleucogramă* (*hemo-* + *leuco-* + *-gramă*), *ileopatie* (*ileo-* + *-patie*), *ileocolostomie* (*ileo-* + *-colo-* + *-stomie*), *laringotraheotomie* (*laringo-* + *traheo-* + *-tomie*), *menometroragie* (*meno-* + *metro-* + *-ragie*), *nevralgie* (*nevr-*, *-algie*), *nazofaringoscop* (*nazo-* + *faringo-* + *-scop*), *oftalmologie* (*oftalmo-* + *-logie*), *osteartropatie* (*osteo-* + *artro-* + *-patie*), *otorinolaringologie* (*oto-* + *rino-* + *laringo-* + *-logie*), *pancreatectomie* (*pancreat-* + *-ectomie*), *psihoendocrinologie* (*psiho-* + *endocrino-* + *-logie*), *rinoree* (*rino-* + *-ree*), *reoangiografie* (*reo-* + *angio-* + *-grafie*), *sacralgie* (*sacr-* + *-algie*), *salpingoovariectomie* (*salpingo-* + *ovari-* + *-ectomie*), *tahipnee* (*tahi-* + *-pnee*), *traheobronhoscopie* (*traheo-* + *bronho-* + *-scopie*), *ureterocistostomie* (*uretero-* + *cisto-* + *-stomie*), *vaginaragie* (*vagino-* + *-ragie*), *xerostomie* (*xero-* + *-stomie*), *xerotomografie* (*xero-* + *tomo-* + *-grafie*) (DM 2007) etc.

b) medical terms formed by adding a false prefix and one word: *adipofibrom* (*adipo-* + *fibrom*), *bronhodilatator* (*bronho-* + *dilatator*), *cefalhematom* (*cefal-* + *hematom*), *dermovaccin* (*dermo-* + *vaccin*), *fibrocartilagos* (*fibro-* + *cartilagos*), *gerontoprofilaxie* (*geronto-* + *profilaxie*), *hipnoanestezie* (*hipno-* + *anestezie*), *imunoanticorp* (*imuno-* + *anticorp*), *limfoganglion* (*limfo-* + *ganglion*), *mioedem* (*mio-* + *edem*), *neuromuscular* (*neuro-* + *muscular*), *osteoartrită* (*osteo-* + *artrită*), *perivaginită* (*peri-* + *vaginită*), *rinolaringită* (*rino-* + *laringită*), *seroprofilaxie*

(*sero-* + *profilaxie*), *trombotest* (*trombo-* + *test*), *urolitiază* (*uro-* + *litiază*), *vasodilatație* (*vaso-* + *dilatație*) (DM 2007) etc.

The following false prefixes and suffixes of foreign origin with the highest degree of frequency have been extracted from the medical texts under analysis: *aden(o)-*, *-algie*, *angi(o)-*, *bronh(o)-*, *cardi(o)-*, *-card*, *derma-*, *dermat(o)-*, *-ectomie*, *-emie*, *enter(o)-*, *eritr(o)-*, *faring(o)-*, *fleb(o)-*, *gastro-*, *gineco-*, *-grafie*, *hem(o)-*, *hepat(o)-*, *hister(o)-*, *imuno-*, *laring(o)-*, *leuc(o)-*, *limf(o)*, *-logie*, *mio-*, *-miom*, *nefr(o)-*, *neur(o)-*, *oftalm(o)-*, *oste(o)-*, *patie-*, *-pedie*, *plasm(o)-*, *pneum(o)-*, *psih(o)-*, *-rafie*, *-ragie*, *schizo-*, *scler(o)-*, *-scleroză*, *-scop*, *-scopie*, *stafil(o)-*, *-stază*, *stomat(o)-*, *tomo-*, *-tom*, *tromb(o)-* etc.

It can be observed that this thematic composition process is a very productive way within the medical lexicon, ensuring a particular evolution of the formation of medical terms from simple structures to complex structures (Staicu 2017: 37).

6. To be continued

Most Romanian medical terms, viewed from the point of view of their morpho-lexical structure, are the result of loans mainly from French and English, which in turn are made up of elements of Latin and Greek origin through derivation and composition.

Being fully aware that many derivative or compound formations are analysable in the source languages of the loan, in fact they are external means of enriching the Romanian medical vocabulary. But in order to make a broad presentation in structural terms, we found it useful to highlight the internal form of the terms by revealing their morphematic structure at the level of the source language of the loan.

Thus, our analysis concerned the word formation of medical terms, in particular derivation and compounding, targeting the Romanian terminology system, as well as the source language system of the borrowing. We have thus tried to map a specialized lexical picture from a dual perspective, taking into account both the morphematic structure of borrowed terms and proper Romanian word formations (Staicu, 2017: 49).

Our research confirms the existence of some specific terms, as a result of derivation or compounding, which took place in the source language of the loan and contribute to the enrichment of Romanian medical terminology.

The current Romanian medical lexicon is characterized by diversity and vitality. It also contributes to its special relationship with the French medical lexicon, and more recently with the English lexicon.

BIBLIOGRAPHY

1. Berejan, Silviu, "Terminologia tehnico-științifică internațională în dicționarele naționale generale" in *Terminologie și limbaje specializate*, ed. a II-a, Chișinău, 2000, pp. 19-27.
2. Bidu-Vrănceanu, Angela (coord.), Ene, Claudia, Savulescu, Silvia, Toma, Alice, *Lexic comun, lexic specializat*, București, Editura Universității din București, 2000.
3. Bidu-Vrănceanu, Angela (coord.), *Lexic științific interdisciplinar*, București, Editura Universității din București, 2001.
4. Bidu-Vrănceanu, Angela, "Rolul lingvisticii în terminologie", in *Terminology and translation studies*, Cluj-Napoca, Scientia, 2011, pp. 21-36.
5. Cabré, Maria Teresa, "Terminologie ou terminologies? Spécialité linguistique ou domaine interdisciplinaire", in *Meta*, XXXVI/ 1, 1991, pp. 55-63.
6. Cabré, M. T., "Theories of terminology. Their description, prescription and explanation", in *Terminology* vol. 9, no. 2, John Benjamins Publishing Company, 2003, pp. 163-199.
7. Chiș, Dorina, *Cuvânt și termen*, Timișoara, Augusta, 2001.
8. Ciobanu, Fulvia, Hasan, Finuta, *Formarea cuvintelor în limba română (FCLR)*, Vol. I *Compunerea*, București, Editura Academiei RSR, 1970.
9. Coteanu, Ion, "Terminologia tehnico-științifică. Aspecte, probleme", in *LR*, XXXIX, nr. 2, 1990, pp. 95-99.
10. Coteanu, Ion, Bidu-Vrănceanu, Angela, *Limba română contemporană*, București, Editura Didactică și Pedagogică, 1975.
11. Ploae-Hanganu, Mariana, "Terminologia și limba comună (Pentru o bază de date terminologice)", *LR*, XLI, nr. 9, 1992, pp. 479-483.
12. Nistor, Mihai, "Concepte terminologice", in *Romanoslavica*, XL, București, Editura Universității din București, 2005, pp. 93-101.
13. Nistor, Valeria, „Despre termeni și terminologii științifice”, in *Analele Universității din Timișoara*, 31, 1993, pp. 169-175.
14. Staicu, Simona Nicoleta, *Aspecte ale limbajului medical românesc actual. Perspectivă sincronică: sistem și discurs*, Timișoara, Editura de Vest, 2016.
15. Staicu, Simona Nicoleta, *Analize morfo-lexicale în textul medical. Aplicații pentru cursul practic de limba română și limba engleză*, Timișoara, Editura de Vest, 2017.

Corpus of medical texts:

16. Sîrbu, Elena, *Kinetoterapia în afecțiunile reumatologice*, Timișoara, Editura Eurobit, 2007.
17. Sîrbu, Elena, *Contribuții la studiul neurorecuperării în accidentul vascular cerebral ischemic*, Timișoara, Editura Eurobit, 2008.
18. Suci, Oana, Poenaru, Dan V., *Recuperarea mersului în afecțiunile piciorului tratate ortopedico-chirurgicale*, Timișoara, Editura Politehnica, 2011.
19. Rusu, Valeriu, *Dicționar Medical*, (DM), București, Editura Medicală, 2007.
20. Zolog, Alexandru, *Afaziile, semiologie, neurolingvistică, sindromatologie*, Timișoara, Editura Eurobit, 1997.