# COGNITIVE AND STRUCTURAL CHARACTERISTICS OF LATIN TERMS FOR INFECTIOUS AND INVASIVE DISEASES WITH A ZOOMORPHIC COMPONENT

DOI: 10.36740/WLek202202135

Olena M. Bieliaieva<sup>1</sup>, Valentyna H. Synytsia<sup>2</sup>, Olena V. Myronyk<sup>2</sup>, Yuliia V. Lysanets<sup>1</sup>, Iryna M. Solohor<sup>1</sup>, Halyna Yu. Morokhovets<sup>1</sup>, Svitlana M. Efendiieva<sup>1</sup>

<sup>1</sup>POLTAVA STATE MEDICAL UNIVERSITY, POLTAVA, UKRAINE

<sup>2</sup>BUKOVINIAN STATE MEDICAL UNIVERSITY, CHERNIVTSI, UKRAINE

#### ABSTRACT

**The aim** was to analyze the morphological, structural and lexico-semantic presentation of the Latin terms denoting the infectious and parasitic diseases, part of which is a zoonymic component.

Materials and methods: The presentation sample was made by the method of continuous sampling based on textbooks, manuals, including the three-volume edition "Infectious and parasitic diseases", and a number of modern dictionaries. Structural, semantic and descriptive methods were used to address the aim of the research.

**Results**: Monolexemic composites with a zoomorphic component are formed in a suffixal way. In multi-word phrases, syntactic constructions of mixed type, are usually used and they are characterized by the combination of words of Greek and Latin origin, but these formations are few. The eponymous and toponymic formations to denote specific nosological forms in helminthology are not typical. The data on the first contribution of a researcher to the description of the disease in the name of the term is not displayed, preference is still given to the name of the pathogen, rather than the name of the researcher. The prefix-suffix-based method of formation of terms denoting infectious and parasitic diseases with a zoonymic component is observed sporadically.

**Conclusions**: The comparison of the above-analyzed terms with the corresponding terminological units of the English medical terminology indicates the predominant use of Latin terminological units. In contrast to many clinical terms with a zoomorphic component, where certain associative moments are taken into account.

KEY WORDS: medical terminology, Latin terms, infectious and invasive diseases, a zoomorphic component, cognitive and structural approach

Wiad Lek. 2022;75(2):520-523

### INTRODUCTION

Acquaintance with scientific publications of the last ten years testifies to the interest of researchers in terms of various sublanguages of medicine, in which a zoomorphic component is traced, although the number of studies in this direction is insignificant. Perhaps the greatest attention is paid to the coverage of zoomorphic components based on the material of Latin anatomical terms (Y. Brazhuk, 2014; O. Kharik, 2017); features of metaphorical connotative meanings of medical terms with an animal component in modern Chinese researches (K. Cui, 2014). O. Kryzhko's publications (2010, 2015) are devoted to the cognitive features of zoonymic terms of the Ukrainian language in semasiological and onomasiological aspects; 97 lexical and semantic units with zoonymic and ornithonymic components based on the material of Russian and English medical vocabulary were analyzed by A. Ryabova and O. Kozlova (2012); some remarks on the functioning of terms with an animal component in the "Infectology" terminology are set out in the research by V. Synytsia (2019). However, we have not found any studies that would comprehensively focus on the structural and semantic aspects of the nomination

of Latin terms with the use of zoonyms as monolexic and terminological phrases of the microfield "infectious and invasive diseases". The choice of this area of research is also explained by the extreme prevalence of diseases caused by pathogenic protozoa, helminths or arthropods among adults and children. The number of terms with an animal component is quite numerous and requires a detailed study, which will ensure an in-depth understanding of the functioning of nominative units from the outlined microfield of medicine from the standpoint of cognitive and structural approach.

# THE AIM

The aim of the research is to analyze the morphological, structural and lexico-semantic presentation of the Latin terms denoting the infectious and parasitic diseases, part of which is a zoonymic component.

### **MATERIALS AND METHODS**

The presentation sample was made by the method of continuous sampling based on textbooks, manuals, including the three-volume edition "Infectious and parasitic diseases", and a number of modern dictionaries [1-8]. Structural, semantic and descriptive methods were used to address the aim of the research.

# **RESULTS AND DISCUSSION**

The largest number of terms with a zoomorphic component is found in medical helminthology, a section of medical parasitology that studies worms and the diseases they cause. The term "helminthologia" itself refers to one-word two-morpheme composites: the first position is occupied by the term element "helminth-", which comes from the noun of Greek origin ἕλμινς, ινθος – "worm" (Latin version helmins, helminthis, base helminth-) and the final term element "-logia". The lexeme helmins, inthis f has come down to this day due to to the surviving works of Hippocrates, and in modern dictionaries it is interpreted as "a group of parasitic worms, which includes representatives of the classes of trematodes, cestodes, nematodes; pathogens of helminthic diseases of humans and animals" [8, p. 392]. The concept of "helminthiasis / helminthiasis: a disease caused by helminths; worm infestation" is codified by the Latin terms helminthosis (base helminth- + suffix -osis), helminthiasis (base helminth- + suffix -iasis) and helminthismus (base *helminth*-+ suffix -*ismus*). Doctors in most countries of the world attribute helminthiasis to both parasitic and infectious diseases. Focusing on the ways of transmission, the famous Soviet helminthologist, Academician K.I. Skriabin (1878-1972) and Professor R.S. Schultz (1896-1973) identified two epidemiological groups of helminthiasis and introduced the concepts "biohelminthosis" and "geohelminthosis" into medical discourse in 1937. The terms "biohelminthosis" and "geohelminthosis" refer to one-word three-component formations: *biohelminthosis* ← bi- (from the Greek noun  $\beta i \circ \zeta - life + helminth$ - (from the Greek noun ἕλμινς - *worm*) + Greek suffix -*osis* – *invaders*, whose pathogens develop and are transmitted to humans through the tissues of their body [2, p. 254]; geohelminthosis  $\leftarrow$  ge-(from the Greek noun  $\gamma \tilde{\eta}$  - *earth*) + *helminth*- (from the Greek noun ἕλμινς - worm) + Greek suffix -osis - invasions, whose causative agents develop directly (without the participation of an intermediate host) and are transmitted to humans through the elements of the environment, contaminated with invasive eggs or larvae [2, p. 254]. In 1952, Professor E.S. Shulman identified an additional group - contact helminthiasis. To denote this concept, medical dictionaries offer a two-word term "helminthosis contactilis", which is etymologically of Greek-Latin origin: single-word composite of Greek origin helminthosis + Latin adjective contactilis, e, formed by the suffix "-al" from the past participle, passive contactus, a, um of the verb contingo, tigi, tactum, ere - "to touch". The article by M. Teleky elaborates on the terminological units with an adjective component in the medical terminology system in more detail [9], where, in particular, the suffix "-al" is mentioned, among others, as one that belongs to a small group of deverbal adjectives, which are found in medical

terminological phrases. However, analyzing the terminological phrases of infectious and invasive diseases with a zoomorphic component, we can question the above statement, because we found six phrases with adjectives, which used the suffix "-al": *myiasis intestinalis, myiasis nasalis, helminthosis naturalis et focalis, schistomiasis intestinalis, schistomiasis urogenitalis,* whereas only 4 terminological formations with the suffix "-os" were revealed: *myiasis mucosa, myiasis dermatosa, myiasis iomaginosa, myiasis oestruosa;* and with the suffix "-ic" – only two examples: *myiasis traumatica, ascaridosis hepatopancreatica.* 

According to the unified nomenclature of invasive diseases, the dominant structural model is schematically represented as follows: the Greek suffix "-osis / -iasis" is added to the generic name of the parasite. For example, the term "worm disease caused by Ancylostoma duodenale or Necator americanus" is verbally denoted by the term ankylostomosis or its variant ankylostomiasis [7, p. 118]. Given the nomenclature of parasitic diseases, this nomination is structurally a two-component formation: the first position is occupied by the generic name of the pathogen Ankylostoma (or rather, the truncated form of ankylostom-), which is joined by the suffix "-osis" (or as a variant "-iasis"). However, one must not forget that the generic name of the pathogen Ankylostoma is etymologically derived from the Greek word ἀγκύλος – *curve* + Greek noun στόμα - *mouth* and is also a two-component formation. That is, if we "decompose" the term ankylostomosis / ankylostomiasis without taking into account the name of the pathogen, we can distinguish three morpheme components: cκπaγκύλος + στόμα + "-osis / -iasis".

The study found that the dictionaries by Arnaudov [6, p. 23] and Rudzitis [7, p.118] record spelling forms Ankylostoma, ankylostomosis / ankylostomiasis, whereas the encyclopedic dictionaries by Dornald [5, p. 100] and Petrukh [8, p. 143] – Ancylostoma, ancylostomosis / ancylostomiasis. Moreover, in the dictionary by Dornald [5] on p. XX, which lists the "The list of analytical words", two initial terminological elements are given without any explanation: "ancyl-" and "ankyl-". In our opinion, the variant "ancyl-" contradicts the rules of Latinization of the Greek words, because to transmit the sound [k], available in the Greek word ἀγκύλος, one must use the letter of Greek origin [k], because according to the phonetics of Latin, the letter [c] in the position before [y] is pronounced [ts]. It should also be remembered that the combination of the Greek letters ук corresponds in Latin to the combination "nk", not "nc" [6, p. XVIII], which again indicates that the spelling of the above terms is not entirely correct. However, a review of recent scientific papers published on the Internet shows that the variant Ancylostoma, ancylostomosis / ancylostomiasis can be found more often in medical discourse. It is thought that one reason may be the influence of English, another – the reluctance of the medical community to take into account the etymology of a terminological unit due to lack of knowledge of the phonetic system of the language from which the term was borrowed, in this case - the ancient Greek.

In ICD-10, code B-76.0, the invasion, caused by Ankylostoma species is referred to as "ankylostomiasis/ankylostomosis", whereas the common name for code B-76 is "ankylostomidosis (hookworm disease)". Thus, the term "hookworm disease" refers to a disease that combines two invasions: ankylostomosis / ankylostomiasis, caused by Ankylostoma duodenale, and necatorosis, caused by Ankylostoma americanum, also known as Necator americanus. The term "ankylostomidosis" is formed according to a well-known model: the Greek suffix "-osis" is added to the name of the family of nematodes of the class Rhabditida Ankylostomatidae: *ankylostomidosis*.

In general, in ICD-10, subheading B65 - B99 "Helminthiasis" of heading  $A_{00} - B_{99}$  Class I. "Some infectious and parasitic diseases" record 19 nosologies, where a zoomorphic component is distinguished. Quantitative analysis of the selected terminological units is as follows: two two-component formations with the suffix "-osis", five - with the suffix "-iasis" and several word-forming variant forms, which have a common root, equivalent lexical and grammatical meaning, but the discrepancy is in the use of close by semantic load, but different in the verbal expression of suffixes: helminthosis et helminthiasis, taeniosis et taeniasis, trichinosis et trichiniasis, bilhaziosis et bilhaziasis; there are nine three-component one-word nominations; among them, eight are formed with the suffix "-osis" and one variant form: ankylostomosis et ankylosto*miasis*. The four-component terms are represented by three composites: word-forming variant forms diphyllobothriosis et diphyllobothriasis and lexemes trichostrongyloidosis and angiostrongylidosis.

Regarding the morphological nature of term components, the following conclusion can be made:

1) noun morpheme of Greek origin + suffix "-osis" or "-iasis" – these are the most numerous examples. Let us illustrate this statement with several examples: *ascaridosis*  $\leftarrow$  basis of "ascarid-" from the Greek noun ἀσκαρις – "worm", + suffix "-osis". It is known that the term "ascarid" (*Ascaris, idis f*) was introduced by Hippocrates, and the modern name Ascaris lumbricoides – a roundworm of the nematode class – was given to the helminth by Carl Linnaeus in 1758.

2) two noun morphemes of Greek origin + suffix "-osis" or "-iasis": echinococcosis ← base echin- from the Greek noun ἐχῖνος - hedgehog + Greek noun κόκκος - grain + suffix "-osis"; cysticercosis ← base cyst- from the Greek noun κύστις - bubble + Greek noun κέρκος - tail + suffix "-osis"; trichocephalosis ← basis trich- from the Greek noun θρίξ - hair + Greek noun κεφαλή - head + suffix "-osis", etc.

3) prefix of the Greek origin + adjective morpheme + suffix "-osis" / "-iasis" – three examples: *metastrangylosis*  $\leftarrow$  Greek prefix *meta* + base *strongyl*- from the Greek adjective  $\sigma \tau \rho \circ \gamma \gamma \upsilon \lambda \circ \varsigma$  - *round* + suffix "-osis"; *metagonimosis* / *metagonimiasis*:  $\leftarrow$  Greek prefix µ $\epsilon \tau \alpha$  + base *gonim*- from the Greek adjective  $\gamma \circ \upsilon \mu \circ \varsigma$  - *fruitful* + suffix "-osis" / "-iasis" and *paragonimosis* / *paragonimiasis*:  $\leftarrow$  Greek prefix  $\pi \alpha \rho \alpha$  + base *gonim*- from the Greek adjective  $\gamma \circ \upsilon \mu \circ \varsigma$  - *fruitful* + suffix "-iasis".

Medical terminology in general is characterized by the use of a huge number of terms, where one of the components refers to the name of a certain person, to whom we owe the functioning of a particular eponymous term. This phenomenon is inherent in the terminology of all subsystems of medicine, as evidenced, for example, by the publications on eponymous terms based on the material of English and Latin terminology [9; 12 - 17]. However, we did not find any mention of eponymous formations in the names of helminthiases, therefore, we also paid attention to this aspect. The analysis of verbal notations of the concept in the above-mentioned thematic field revealed the existence of several terms, which can be attributed to eponymous ones. In particular, it is a one-word composite brugiosis - helminthiasis from the group of filariasis caused by Brugia malayi. Thus, the term is based on the name of the Dutch parasitologist S.L. Brug (1879-1946), who isolated a helminth called Filaria malayi in 1927. However, in 1958 (according to other sources, in 1960), D. Buckley proposed to classify the pathogen in the genus Brugia - a genus of filamentous worms of the superfamily Filarioidea, which parasitize in humans and mammals, a new species named Brugia malayi in honor of the discoverer S.L. Brug, to which the medical community of the time responded favorably.

Another monolexemic composite is represented by the term *bilharziasis / bilharziosis*, which corresponds to the name of the German doctor Th.M. Bilharzar (1825-1862), who in 1851 described the genus of trematodes Bilharzia, parasitizing in blood vessels, and after whom this genus was named.

Another name for helminthiasis *wuchereriasis / wuchereriosis* has its origins in the name of the German physician Otto Wucherer (1820-1873), to whom we owe the existence of the name Wuchereria of the genus Nematode of the superfamily Filarioidea.

Eponymous terminological phrases include schistosomiasis/ schistosomatosis Mansoni - infection with trematodes of the species Schistosoma mansoni, which live mainly in the superior and inferior mesenteric veins. As you one observe, the general term schistosomiasis (from the Greek adjective σχιστός - split Greek noun  $\sigma \tilde{\omega} \mu \alpha$  - body + Greek suffix "-osis") is used to verbalize the concept, which means "helminthiasis caused by trematodes of the genus Schistosoma" and the name of the English doctor Sir Patrick Manson (1844-1922), who in 1898 proposed to distinguish between two forms of schistomosis: the intestinal (schistosomiasis intestinalis) and the urogenital ones (schistosomiasis urogenitalis). Later, in 1907, the Italian and English physician Louis Westerna Sambon (1867-1931) suggested that intestinal schistomatosis should be named after the person who first noticed helminth eggs in a patient's feces in South America, namely schistosimiasis Mansoni [10]. Modern encyclopedic medical dictionaries record two synonymous names for the transmission of tropical helminthiasis, which occurs with allergic manifestations and signs of damage to the mucous membrane of the colon by migrating eggs of the helminth Schistoma mansoni: schistosomiasis Mansoniis and intestinal beniponia. These terminological units are absolute synonyms, and their parallel functioning

in medical discourse is explained by the historical stages of the study of helminthiasis caused by the genus of trematodes of the family Schistosomatidae. Quite correct in this regard is the remark of M. Kuzmin that one scientific concept can have many different features, it can be perceived differently and have several names that reflect the different properties of the object of nomination [11, p. 78].

In addition to the eponymous formation recorded in the dictionary article "schistomatosis", we should pay attention to the two-lexemic composite with a toponymic component. It is a terminological phrase *schistosomiasis japonica* - helminthiasis of the group of trematodes, which is caused by the species Schistosoma japonicum and is characterized mainly by lesions of the gastrointestinal tract, where the term schistosomiasis occupies a constant position, and the variable part is expressed by the adjective. Since the parasite was first discovered in 1904 by the Japanese parasitologist Fujiro Katsurada (1867-1947) in a patient from Kofu, Yamanashi Prefecture (Japan), the genus Schistosoma was joined to the species japonicum, which fixed the name of the area where the helminth eggs were first isolated.

The term "loaosis" refers to "hybrid" terminological units, as the first position is not occupied by the classical (Greek or Latin) component, but by "the local word in Angola, West Africa" [5, p. 1328], *loa* – "the eye worm" [3, p. 310]. In 1778, the French surgeon F. Guyot described the parasite and gave it the name Loa loa, and the disease became known as *loaosis*.

The vast majority of the studied names of helminthiasis are characterized by terminological compatibility, which seems to us a well-motivated phenomenon: a specific pathogen that causes a specific disease, and the suffix "-osis" / "-iasis". For example, the larvae of nematodes Toxocara canis or Toxocara mystax cause severe parasitic toxocarosis; the Chinese sucker Clonorchis sinensis is the causative agent of chronic helminthiasis, known as clonorchosis; despite the two species of *Fasciola hepatica et Fasciola gigantica*, helminthiasis is codified by one term – "fasciolosis".

However, parasitism of four types of schistosomes in the human body has led to the emergence of terminological phrases, which differ depending on the predominant helminthic damage of the organ. Thus, *schistosomiasis urogenitalis* informs about the predominant lesion of the urogenital organs (*urogenitalis*, *e*); *schistosomiasis intestinalis* indicates intestinal invasion (*intestinalis*, *e*); *schistosomiasis intercalatum* is caused by Schistosoma intercalatum and is an endemic intestinal disease prevalent in West Central Africa; *schistosomiasis japonica* is characterized by damage to the digestive system and its spread in the regions of southern Japan, southern China, and the Philippine archipelago.

#### CONCLUSIONS

The conducted study allows us to draw the following conclusions:

1) monolexemic composites with a zoomorphic component are formed in a suffixal way: the Greek suffix "-osis" / "-iasis" is added to the name of the genus of the pathogen, which occupies the initial position; the vast majority of terms are of Greek origin;

2) in multi-word phrases, syntactic constructions of mixed type, are usually used and they are characterized by the combination of words of Greek and Latin origin, but these formations are few;

3) eponymous and toponymic formations to denote specific nosological forms in helminthology are not typical. The data on the first contribution of a researcher to the description of the disease in the name of the term is not displayed, preference is still given to the name of the pathogen, rather than the name of the researcher. For example, chronic helminthiasis with a predominant lesion of the small intestine was first described by the French physician L. Norman in 1876 under the name "Cochin-China diarrhea", because signs of the disease were found in soldiers returning from Cochin-China, one of the districts of the Mekong River Delta in southeastern Indochina. However, none of the dictionaries we relied on in the study recorded terms related to the doctor's name or geographical area. Three years later, in 1879, the eminent Italian parasitologist Giovanni Battista Grassi (1854-1925) provided in-depth information on the parasite's life cycle and proposed a name for a new genus of Stoangyloides parasites, resulting in the disease now known as strongyloidosis / strongyloidiasis;

4) prefix-suffix-based method of formation of terms denoting infectious and parasitic diseases with a zoonymic component is observed sporadically;

5) comparison of the above-analyzed terms with the corresponding terminological units of the English medical terminology indicates the predominant use of Latin terminological units, cf.: *schistosomiasis* (Latin and English); *strongyloidosis* (Latin and English) etc., which once again confirms the influence of Latin on the formation of the English medical terminology;

6) in contrast to many clinical terms with a zoomorphic component, where certain associative moments are taken into account, cf.: *auris felina* - cat's ear (because of similarity in shape), terms with an animal component in infectology emphasize the name of the pathogen: *onchocercosis* – from the name of the pathogen - round helminth Onchocerca volvulus (etymologically the generic name is derived from the Greek noun *onkos* – "tumor" and the Greek noun *kerkos* – "tail").

#### PROSPECTS FOR FURTHER RESEARCH

In our opinion, it is quite logical to carry out a comparative analysis of the terms of infectious and invasive diseases with a zoomorphic component based on the example of modern European languages, focusing on the current International Classification of Diseases, revision 10, to draw relevant conclusions about derivational characteristics of terms denoting a group of intestinal diseases caused by different types of pathogens. Our previous investigation, in particular, of the verbal codification of the concept of "a disease caused by Ascaris lumbricoides" confirmed the conclusion about the influence of Latin on the formation of national terms of infectious and invasive diseases with a zoomorphic component (Table I): **Table I.** The verbal codification of the concept of "a disease caused by Ascaris lumbricoides"

Language	Term
Latin	ascaridosis, ascaridiasis, ascarisiasis
English	ascaridiasis, ascariasis
German	Askariasis, Ascaridiasis
French	ascaridiase, ascaridiose
Italian	ascaridiasi
Polish	ascaridoza
Ukrainian	аскаридоз
Russian	аскаридоз

# REFERENCES

- 1. Bieliaieva OM. Latyns'ko-ukrayins'kyy tlumachnyy slovnyk klinichnykh terminiv [Latin-Ukrainian explanatory dictionary of clinical terms]. Kyiv: VSV «Medytsyna», 2016. (in Ukrainian).
- 2. Bieliaieva OM, Zhdan VM, Tsisyk AZ. Latyns'ko-ukrayins'kyy medychnyy entsyklopedychnyy slovnyk: u 2 t., T.1 [Latin-Ukrainian medical encyclopedic dictionary: in 2 volumes, T.1]. Kyiv: VSV «Medytsyna», 2020. (in Ukrainian).
- 3. Vozianova Zh. Infektsiyni i parazytarni khvoroby [Infectious and parasitic diseases]. Kyiv: Zdorovya, 2002 (in Ukrainian).
- 4. Pishak VP, Boychuk TM, Bazhora Yul. Klinichna parazytolohiya [Clinical parasitology]. Chernivtsi, 2003 (in Ukrainian).
- 5. Ilyustrovanyy anhlo-ukrayins'kyy medychnyy slovnyk Dornalda u dvokh tomakh [Dornald's English-Ukrainian medical dictionary is illustrated in two volumes]. Lviv: Nautilius, 2002. (in Ukrainian).
- 6. Arnaudov G. Terminologia medica polyglotta: Latinum, Russkyi, English, Francais, Deutsch, Sofia, 1979. (in Russian).
- 7. Rudzitis K. Terminologia medica in duobus voluminibus. Riga: Liesma, 1977. (in Russian).
- 8. Petrukh L, Holovko I. Ukrayins'ko-rosiys'ko-latyns'ko-anhliys'kyy medychnyy entsyklopedychnyy slovnyk [Ukrainian-Russian-Latin-English medical encyclopedic dictionary]. Kyiv: VSV «Medytsyna», 2016. (in Ukrainian).
- 9. Teleky MM. Hramatychni zasoby vyrazhennya morfolohichnykh i slovotvirnykh katehoriy latyns'koho prykmetnyka [Grammatical means of expression of morphological and word-forming categories of the Latin adjective]. Aktual'ni pytannya suspil'nykh nauk ta istoriyi medytsyny. 2017;№3(15): 85-90. (in Ukrainian).
- 10. Chuyelov SB, Rossina AL. Vspyshka mochepolovogo shistomoza na Korsike [Outbreak of genitourinary schistosomiasis in Corsica]. Detskiye infektsii. 2018; 17(2):45-51. (in Russian).
- 11. Kuz'min NP. Normativnaya i nenormativnaya spetsial'naya leksika. Lingvisticheskiye problemy nauchno-tekhnicheskoy terminologii [Normative and profanity vocabulary. Linguistic problems of scientific and technical terminology]. Moscow, 1970: 68–81. (in Russian).
- 12. Bieliaieva OM, Lysanets YV, Znamenska IV, Rozhenko IV, Nikolaieva NM. Terminological collocations in medical Latin and English: A comparative study. Wiadomości Lekarskie. 2017;70(1):139-143. (in English)
- Lysanets YV, Bieliaieva OM. The use of Latin terminology in medical case reports: quantitative, structural, and thematic analysis. J Med Case Reports. 2018;12,45: https://doi.org/10.1186/s13256-018-1562-x. (in English).

- 14. Bieliaieva OM, Synytsia VH, Lysanets YV. Pharmaceutical Terms with Onomastic Component: Quantitative, Structural and Lexico-Semantic Analysis. Wiadomości Lekarskie. 2018;Vol.71.Nr.1.cz.II:217–221. (in English).
- 15. Synytsya V, Bieliaieva O, Myronyk O. Latyns'ki eponimichni terminy na poznachennya vrodzhenykh vad rozvytku ta spadkovykh syndromiv [Latin eponymous terms to denote congenital malformations and hereditary syndromes]. Aktual'ni pytannya suspil'nykh nauk ta istoriyi medytsyny: ukrayins'ko-rumuns'kyy naukovyy zhurnal. Ser. Filolohichni nauky. 2017;3:79–84. (in Ukrainian).
- 16. Bieliaieva O, Uvarkina O, Lysanets Yu, Morokhovets H, Honcharova Ye, Melaschenko M. Gerhard Hansen Vs. Albert Neisser: Priority for the Invention of Mycobacterium Leprae and Problems of Bioethics. Georgian Medical News. 2020;№ 12(309): 156–161. (in English).
- 17. Synytsia VH, Bieliaieva OM, Myronyk OV. Strukturno-semantychni osoblyvosti kil'kaslivnykh terminiv z yadernoyu semoyu «tyf» [Structural and semantic features of several-word terms with the core seme "typhus"]. Aktual'ni pytannya linhvistyky, profesiynoyi linhvodydaktyky, psykholohiyi i pedahohiky vyshchoyi shkoly. Poltava, 2020: 341–346. (in Ukrainian).

The article is part of the research project "Improvement of the content and means of teaching foreign languages and Latin at higher educational institutions of the 4th accreditation level" (state registration number 0120U105553, 2021-2025), Supervisor: Ph.D., Assoc. Prof. Olena M. Bieliaieva.

# ORCID and contributionship:

Olena M. Bieliaieva: 0000-0001-9060-4753<sup>A,D,F</sup> Valentyna H. Synytsia: 0000-0002-8346-3662<sup>E,F</sup> Olena V. Myronyk: 0000-0002-5717-7267<sup>B,D</sup> Yuliia V. Lysanets: 0000-0003-0421-6362<sup>B,D</sup> Iryna M. Solohor: 0000-0001-9899-6552<sup>B</sup> Halyna Yu. Morokhovets: 0000-0002-6079-6878<sup>B</sup> Svitlana M. Efendiieva: 0000-0002-9633-0236<sup>B</sup>

# **Conflict of interest:**

The Authors declare no conflict of interest.

# **CORRESPONDING AUTHOR**

Yuliia V. Lysanets Poltava State Medical University 23 Shevchenko Str., 36011 Poltava, Ukraine e-mail: julian.rivaqe@gmail.com

**Received:** 02.04.2021 **Accepted:** 27.12.2021

A - Work concept and design, B – Data collection and analysis, C – Responsibility for statistical analysis, D – Writing the article, E – Critical review, F – Final approval of the article



*Article published on-line and available in open access are published under Creative Common Attribution-Non Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0)*