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TO THE PROBLEM OF “LATIN IN PHARMACY” COURSE MODERNIZATION

Obtaining Ukraine the status of a permanent member of the European Pharmacopoeia, which provides for certain changes in pharmaceutical legislation and special terminology, rapid development of science, technology and production of new pharmaceutical substances, drugs and medical devices necessitate constant revision of existing special terminology. At the same time, the issue of correction of the Latin course in specialized universities of Ukraine taking into account the current industry standards becomes relevant. Today in Ukraine there is a lack of scientific linguistic research of pharmaceutical terminology. The proposed work deals with the analysis of the current state of the domestic pharmaceutical terminology. The aim is to track the transformation processes and the place of traditional Latin terminology in it and to develop specific proposals for optimizing the Latin language course in specialized higher education institutions. Proposals for correction of curricula and content of the course are formulated on the basis of analysis of the main regulatory industry documents: the State Pharmacopoeia of Ukraine of the second edition, the European Pharmacopoeia, the State Register of Medicines, the State Form of Medicines. It is proposed to introduce some new topics into the program, to revise some traditional ones, to exclude obsolete terms and names from the list of obligatory vocabulary and to supplement it with special terminology widely used today. In addition, some issues of organization of the educational process are considered, emphasis is placed on the inadmissibility of reducing Latin curricula and the inexpediency of planning three-hour classes during one semester (instead of two semesters course with two-hour classes), especially for foreign students who learn Latin and Ukrainian professional terminology at the same time. As a result, Latin, despite the rapid expansion of the English language, remains the basis of international scientific terminology and special nomenclature codes. The fundamental study of Latin terminology is the key to professional terminological literacy of future medical professionals and pharmacists.

Key words: *Latin, European Pharmacopoeia, State Pharmacopoeia of Ukraine, Latin pharmaceutical terminology, Latin teaching methods, educational process organization.*

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ДО ПРОБЛЕМИ МОДЕРНІЗАЦІЇ КУРСУ «ЛАТИНСЬКА МОВА У ФАРМАЦІЇ»

Отримання Україною статусу постійного члена Європейської Фармакопеї, що передбачає певні зміни у фармацевтичному законодавстві та спеціальній термінології, швидкий розвиток науки, технологій і виробництва нових фармацевтичних субстанцій, препаратів та виробів медичного призначення зумовлюють потребу у постійному перегляді чинної спеціальної термінології. Водночас набуває актуальності питання про корекцію навчального курсу латинської мови у спеціальних вишах України з урахуванням чинних вітчизняних і міжнародних галузевих стандартів. Нині в Україні бракує наукових лінгвістичних досліджень із фармацевтичної термінології. Аналізу сучасного стану вітчизняної фармацевтичної терміносистеми і присвячено пропонувану роботу. Метою роботи є відстеження трансформаційних процесів і місця в ній традиційної латинської термінології та вироблення конкретних пропозицій щодо оптимізації курсу латинської мови у спеціалізованих вищих навчальних закладах. Пропозиції щодо корекції навчальних програм і змістового наповнення курсу сформульовані на основі аналізу основних нормативних галузевих документів: Державної Фармакопеї України другого видання, Європейської Фармакопеї, Державного реєстру лікарських засобів, Державного формуляру лікарських засобів. Запропоновано ввести до програми деякі нові теми, суттєво переглянути окремі традиційні теми, вилучити із переліку обов'язової для запам'ятовування лексики застарілі терміни і назви та доповнити його широковживаною нині спеціальною термінологією. Крім того, розглянуто окремі питання організації навчального процесу, акцентовано увагу на неприпустимості скорочення у навчальних планах годин на вивчення латинської мови і недоцільності планування трьохгодинних занять протягом одного семестру, особливо для іноземних студентів, які паралельно із латинською засвоюють і професійну українську термінологію. У висновках стверджується, що латина, незважаючи на стрімке розширення сфери функціонування англійської мови, залишається і надалі основою міжнародного наукового термінотворення і спеціальних номенклатурних кодексів, а фундаментальне вивчення мови і латинського термінотворення є запорукою професійної термінологічної грамотності майбутніх спеціалістів медичного і фармацевтичного профілів.

Ключові слова: латинська мова, Європейська фармакопея, Державна фармакопея України, латинська фармацевтична термінологія, методика викладання латинської мови, організація навчального процесу.

Introduction. Today, the problem of updating the course “Latin in Pharmacy” is especially relevant to increase the effectiveness of practical training of future pharmacists in higher education. Mastering pharmaceutical terminology is impossible without knowledge of Latin. A professionally oriented Latin course is a fundamental basis for the terminological training for pharmaceutical specialists, which ensures further conscious mastering of professional disciplines by students. The rapid development of the pharmaceutical industry, constant changes in pharmaceutical legislation, the constant production of new pharmaceutical substances, drugs, medical

supplies necessitate constant active work on the creation of new nomenclature names and revision of existing special terminology, both Ukrainian and especially Latin. Against this background, it is necessary to correct the Latin course in medical and pharmaceutical universities of Ukraine, considering current international standards.

Analysis of recent researches and publications. The problem of professional training of future specialists in higher education has always been given due attention, in particular, such aspects as the problem of continuing professional education and professional training of specialists in higher education; development and

implementation of modern pedagogical technologies of professional training of specialists and the problem of professional training of future specialists in the context of personality-oriented education. Recently, in the works of scientists much attention is paid to the introduction of active teaching methods in the pedagogical process of professional training of future pharmacists and doctors (E. Mareckova, F. Simon, L. Gerveniy, O. M. Bilyaeva, S. I. Tykholaz). However, today in Ukraine there is a lack of works that would pay attention to the study and analysis of international and domestic pharmaceutical terminology, as well as the correction of the training course "Latin" in medical and pharmaceutical universities of Ukraine. These issues have been analyzed by the authors earlier in a number of articles: Svitlychna Ye. I., Savina V. V. "Adjectives and participles in Latin Index European Pharmacopoeia (9th edition)" (Світлична, Савіна, 2018: 7); "Structural analysis of drug names in the international pharmaceutical nomenclature" (Світлична, Савіна, 2019: 8); "Latin chemical nomenclature in domestic and international pharmaceutical nomenclature" (Світлична, Савіна, 2020: 9). Vocabulary selected on the basis of analysis is included for compulsory study in the textbook "Latin language" (Svitlychna Ye. I., Tolok I. O., 3rd edition, 2014).

The aim of the article. After analyzing modern international and domestic terminology systems in order to clarify the transformation processes and the place of traditional special Latin terminology in it, to offer a general vision of ways to modernize and optimize the Latin language course in higher educational institutions of pharmaceutical profile.

Results. Pharmaceutical terminology serves the field of scientific and practical activities in health care related to the development and implementation of drugs. The leading place in it is occupied by nomenclature names to denote individual concepts and objects. The combination of them forms the appropriate nomenclature, which is the basis of the pharmaceutical terminology. Its role as a neutral international sign system in the globalized modern world is unique and especially interesting for in-depth study, both from a general philological point of view and in order to further optimize the content of the course of pharmaceutical Latin.

In 2001, the State Pharmacopoeia of Ukraine (SPU) was published, which became the first pharmacopoeial publication in Ukraine and the first national pharmacopoeia among the CIS countries. And from January 1, 2016, the 2nd edition of the State Pharmacopoeia of Ukraine (SPU 2.0) was put into operation. Given the process of Ukraine's integration into the EU and the status of a full

member of the European Pharmacopoeia (EF), the 2nd edition of SFU is fully harmonized with the EF, which has significantly changed many common terms, both Ukrainian and Latin. Regarding Latin, it is important, in our opinion, to pay attention to several points. It is important now to increase the time in the curriculum for the study of clinical terminology and to provide hours for students to master the basics of the Latin microbiological nomenclature, which has traditionally not been studied in the course of pharmaceutical Latin. As for the content, it would be timely to revise the list of Latin botanical names of medicinal plants and expand it by the names of those plants whose use has become relevant recently. When studying the topic "Latin nomenclature of drugs", more attention should be paid to the analysis of structures and methods of creating international non-proprietary names of drugs, as well as the study of the most commonly used "common bases" in the names of pharmacological groups of drugs proposed by the WHO. The analysis shows that there is a significant amount of important and frequently used vocabulary, which would be useful to expand the list of mandatory study. In the names of groups of drugs by purpose substantivized adjectives are widely used: *Auricularia* – *Ear medicines (auricularis, e – otic)*; *Vaginalia* – *Medicines for vaginal use (vaginalis, e – vaginal)*; *Ophthalmica* – *Ophthalmic drugs (ophthalmicus, a, um – eye)*; *Rectalia* – *Drugs for rectal use (rectalis, e – rectal)*. Traditionally, in the domestic nomenclature, such names were indicated by agreed attributes with nouns **remedia** or **medicamenta**: *remedia (medicamenta) auricularia etc.* And the term "medicines" is translated in pharmacopoeias as *praeparationes* or *pharmaceutica*.

The noun **species, ei f** – **species, collection, tea** – is used in the pharmacopoeial nomenclature in contrast to the previous tradition only in the meaning of "collection", and "medicinal herbal teas" are referred to as *Praeparationes ad ptisanam*.

It is also necessary to take into account the fact that the names of separate dosage forms new for the domestic nomenclature came into use.: *compressi – tablets, granulata – granules, inhalanda – medicines for inhalation, immunoserum – immunoserum etc.*

It should be noted that almost all Latin names of vaccines are constructed using the construction "disagreed attribute". For example: *Vaccinum diphtheriae et tetani, antigeni-o(-is) minutum, adsorbatum* – *Diphtheria and tetanus vaccine (adsorbed, with reduced antigen(s) content)*. The disagreed attribute in these names is the name of the disease in the genitive case, against which the action of this drug is directed. In SPU 2.0, such names are

translated by prepositional expressions (“Vaccine for diphtheria and tetanus” as an example). However, in Ukrainian vaccine names, the names of pathogenic microorganisms remain untranslated due to the lack of an established official Ukrainian microbiological nomenclature. In our opinion, the development of such a nomenclature would be appropriate and practically useful. In our opinion, a number of new adjectives and participles should be added to Latin textbooks, which are often found in the names of vaccines and sera for additional characterization and indicate the origin, purpose or condition, for example.: *infectivus, a, um – infectious; multiplex, icis – complex, folded; aviarius, a, um – bird; virisomalis, e – virosomal; vivus, a, um – live; integer, gris, gre – whole; (in)activatus, a, um – (in)activated; dispergibilis, a, um – dispersible; densatus, a, um – thickened; solubilisatus, a, um – solubilized, dissolved; adsorbatus, a, um – adsorbed; cryodesiccatus, a, um – dried by sublimation.*

When studying the topic “Chemical nomenclature” it is necessary to pay additional attention to adjectives with numeral prefixes: *hemihydricus, a, um – hemihydrate; monohydricus, a, um – monohydrate; dihydricus, a, um – dihydrate; trihydricus, a, um – trihydrate; tetrahydricus, a, um – tetrahydrate; pentahydricus, a, um – pentahydrate; hexahydricus, a, um – hexahydrate; heptahydricus, a, um – heptahydrate; octahydricus, a, um – octahydrate; nonahydricus, a, um – nonahydrate; decahydricus, a, um – decahydrate; dodecahydricus, a, um – dodecahydrate; sesquihydricus, a, um – sesquihydrate.* Also, the following attributes should be added to the course: *ponderosus, a, um – heavy; acidus, a, um – sour; levis, e – light; glacialis, e – icy; conexus, a, um – conjunct; polymerisatus, a, um – polymerized; racemicus, a, um – racemic.*

Considering the topic: “Names of medicinal plant raw materials and products of primary processing”, it is important to pay attention to the following adjectives and participles: *normatus, a, um – standardized; raffinatus, a, um – refined; virginalis, e – whole, virgin, cold pressing; quantificatus, a, um – quantized; hydrogenatus, a, um – hydrogenated; herbarius, a, um – vegetable; immaturus, a, um – immature; minimatus, a, um – minimized, integer, gris, gre – whole.*

A large number of Latin adjectives and participles, which are rarely or not at all used in the pharmacopoeial nomenclature, are found in the names of finished drugs, active pharmaceutical substances and medical devices: *dessicatus, a, um – dried; humanus, a, um – human; hydrogenatus, a, um – hydrogenated; densatus, a, um – thickened; crudus, a, um – raw; basicus, a, um – basic; absorbens,*

ntis – adsorbing; perliquidus, a, um – superfluous; abundans, ntis – full of water; cri(y)stallisabilis, e – crystallising; derivatus, a, um – derivative; conjugatus, a, um – conjugated; transcutaneus, a, um – transcutaneous; colloidalis, e – colloidal.

In both the EP and the SPU, prepositional expressions are often used. In our opinion, the most commonly used expressions with prepositions should be included in the list of required vocabulary in the Latin language course, namely: *ad usum veterinarium – for use in veterinary medicine; ad praeparationes homoeopathicas – for homeopathic medicines; ad iniectabile – for injectable medicines; sine cellulis ex elementis – acellular, component; ad usum humanum – for human use; ad radiopharmaceutica – for radiopharmaceutical medicines.* To the obligatory lexical minimum in Latin textbooks for students of pharmaceutical profile it is expedient to introduce a number of new vocabulary which is relevant today for pharmaceutical terminology: nouns, adjectives and participles and special prepositional expressions. In addition to lexical features, in the learning process we should focus on the currently accepted as the norm uncharacteristic of the Latin nomenclature reverse word order in simple nominative constructions (disagreed attribute + attributed noun + agreed attribute): *citocoline oral solution – Citocolini solutio peroralis; juniper oil – Juniperi aetheroleum* etc. For such constructions in inflectional languages, which include (as opposed to English) Latin, Ukrainian and Russian, there is a different order of words: attributed noun + disagreed attribute + agreed attribute. However, despite the philological preferences, there is a real situation that can not be ignored.

Nowadays there are different points of view on the current state of Latin and the prospects for its further use. One of them is the German scientist H. Schipperges, who believes that modern students of medical schools do not need Latin. His position is not supported by Czech and Slovak specialists in medical and pharmaceutical Latin E. Mareckova, F. Simon and L. Gervený, who believe that “...the very course of development of terminology for two millennia confirms the establishment of a very influential and viable tradition, a competitive replacement for which is almost impossible to find. Therefore, any doubts about the continued functioning of Latin in medicine should be regarded as unconfirmed.” (Mareckova, Frantisek, Gervený, 2002: 11). Believing that in the future Latin will withstand the increasing pressure of English, they nevertheless claim: «In pharmaceutical terminology, Latin remains an effective means of international communication, even despite the future strengthening of the influence of national languages,

as guaranteed by the European Pharmacopoeia, as well as the corpus of international non-proprietary names of medicinal substances (INN)". (Mareckova, Frantisek, Gervený, 2002: 11). Fully supporting this point of view, we add that the guarantee of the continued functioning of Latin in the pharmaceutical field is also approved at the state level in many countries, and in Ukraine in particular, the tradition of prescribing Latin and the existence of numerous Latin international codes and nomenclatures. The main ones are: anatomical terminology (Nomina anatomica parisiensia PNA); Latin histological nomenclature (LNH); the International Code of Nomenclature for algae, fungi, and plants (ICN); the International Code of Zoological Nomenclature (ICZN); The International Code of Nomenclature of Prokaryotes (ICNP); Classification and nomenclature of the vitamins.; International Latin embryological nomenclature etc. Internationally, the alphabet, phonetics, morphological, syntactic and lexical resources of Latin continue to function actively, playing the role of a supranational sign system in the terminology of various branches of science. Yes, indeed, the English language today has a huge impact on pharmaceutical and medical terminology at all levels – lexical, morphological and syntactic. This global process is difficult to influence however we must analyze and take into account acceptable real changes in scientific and practical terminology, as well as in the development of programs and content of professionally oriented Latin language courses in higher education. Latin remains the basis of fundamental professional language training of pharmaceutical specialists despite any influences so, in our deep conviction, professionally oriented Latin courses should not be simplified or shortened, but modernized, optimizing the content of education taking into account all important transformational terminological processes, practical needs of modern science and production, while maintaining the best traditions and a high level of professional language culture. Maintaining the optimal number of teaching hours, the use of modern methods and forms of education is the main condition for productive work and quality learning of Latin by students. However, certain organizational aspects of the educational process are also important, which relate to the specifics

of studying professionally oriented language courses. For example, it is very impractical to plan three-hour Latin classes once a week and limit the time of study of the discipline to one semester, which is preferred in some universities. Due to the terminological specifics of the discipline, which involves the assimilation of a large amount of lexical items (with such planning, it is an average of 50 terms and nomenclature names and sometimes even more per lesson) such a distribution of hours is unproductive. According to psychological and linguistic researches, the optimal amount of foreign language vocabulary that is learned at the level of long-term memory per lesson is about 20-25 words. Practical experience shows that regular two-hour practical classes for at least two or three semesters allow to evenly distribute the lexical material between classes, and students are able to master it at the level of long-term memory. As a result, learning productivity increases significantly.

Conclusions. Despite the rapid expansion of English, Latin has traditionally been the basis of international scientific terminology and specialized nomenclature codes, especially in the medical and related fields of human activity, and the fundamental study of Latin and the basics of term formation is the key to professional terminology literacy for pharmacists and doctors. Rapid response to transformational changes in the pharmaceutical terminology system, abandonment of obsolete and introduction of new terms and nouns in training courses, detection and correction of undesirable errors in Latin content will increase the overall level of professional language training of future professionals. In the educational process it is impossible to pay one's attention to the changes that are actually taking place in the field of pharmaceutical activity. They should be monitored and the curricula and then education content should be adjusted based on the analysis. In our opinion, it is necessary to focus mainly on the terminology of the State Pharmacopoeia of Ukraine and the European Pharmacopoeia.

It should be noted that it is inexpedient to reduce the number of Latin classes for foreign students, because when studying Latin pharmaceutical terminology, they simultaneously learn a significant number of professional terms and nomenclature names in Ukrainian, which is especially important for this category of students to increase their professional level.

BIBLIOGRAPHY

1. Державна Фармакопея України : в 3 т. Харків : Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів», 2015. Т. 1. 1128 с.
2. Державна Фармакопея України : в 3 т. Харків : Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів», 2014. Т. 2. 724 с.

3. Державна Фармакопея України : в 3 т. Харків : Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів», 2014. Т. 3. 732 с.
4. Державна Фармакопея України. Доповнення 1. Харків : Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів», 2016. 360 с.
5. Державна Фармакопея України. Доповнення 2. Харків : Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів», 2018. 336 с.
6. Державна Фармакопея України. Доповнення 3. Харків : Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів», 2018. 416 с.
7. Світлична Є.І., Савіна В.В. Прикметники та діеприкметники в Latin Index European Pharmacopoeia (9th edition). *Гуманітарна складова у світлі сучасних освітніх парадигм: матеріали II Всеукраїнської науково-практичної конференції з міжнародною участю*, м. Харків, 19-20 квітня 2018 р. Харків, 2018. С. 122–129.
8. Світлична Є.І., Савіна В.В. Структурний аналіз назв лікарських засобів у міжнародній фармацевтичній номенклатурі. *Scientific Journal Virtus Issue*. 2019. № 31. Р. 197–201.
9. Світлична Є.І., Савіна В.В. Латинські хімічні номенклатури у вітчизняній та міжнародній фармацевтичній номенклатурі. *Scientific Journal Virtus Issue*. 2020. № 43. Р. 207–213.
10. European Pharmacopoeia 10.5 URL: <https://pheur.edqm.eu/home> (дата звернення: 26.12.2020).
11. Mareckova E., Frantisek S., Gerveny L. Latin as the language of medical terminology: some remarks on its role and prospects. *Swiss Medical Weekly* 2002. No. 23. Vol. 132(41-42). P.581–587. URL: <https://pubmed.ncbi.nlm.nih.gov/12571757/> (дата звернення: 26.10.2021).
12. Jagzape A., Jagzape T., Pathak S. Medical Education Terminologies: Do These Really Percolate to the Level of Medical Students? A Survey. *Journal of Clinical and Diagnostic Research*. 2017. No 11(9). URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5713760/> (дата звернення: 26.10.2021).

REFERENCES

1. Derzhavna Farmakopeia Ukrainy : v 3 t. [State Pharmacopoeia of Ukraine : 3 vol.]. Kharkiv : State Enterprise "Ukrainian Scientific Pharmacopoeial Center for Drug Quality", 2015. Vol. 1. 1128 p. [in Ukrainian].
2. Derzhavna Farmakopeia Ukrainy : v 3 t. [State Pharmacopoeia of Ukraine : 3 vol.]. Kharkiv : State Enterprise "Ukrainian Scientific Pharmacopoeial Center for Drug Quality", 2014. Vol. 2. 724 p. [in Ukrainian].
3. Derzhavna Farmakopeia Ukrainy : v 3 t. [State Pharmacopoeia of Ukraine : 3 vol.]. Kharkiv : State Enterprise "Ukrainian Scientific Pharmacopoeial Center for Drug Quality", 2014. Vol. 3. 732 p. [in Ukrainian].
4. Derzhavna Farmakopeia Ukrainy. Dopovnennia 1. [State Pharmacopoeia of Ukraine. Appendix 1]. Kharkiv : State Enterprise "Ukrainian Scientific Pharmacopoeial Center for Drug Quality", 2016. 360 p. [in Ukrainian].
5. Derzhavna Farmakopeia Ukrainy. Dopovnennia 2. [State Pharmacopoeia of Ukraine. Appendix 2]. Kharkiv : State Enterprise "Ukrainian Scientific Pharmacopoeial Center for Drug Quality", 2018. 336 p. [in Ukrainian].
6. Derzhavna Farmakopeia Ukrainy. Dopovnennia 3. [State Pharmacopoeia of Ukraine. Appendix 3]. Kharkiv : State Enterprise "Ukrainian Scientific Pharmacopoeial Center for Drug Quality", 2018. 416 p. [in Ukrainian].
7. Svitlychna Ye. I., Savina V. V. Prykmetnyky ta diieprykmetnyky v Latin Index European Pharmacopoeia (9th edition). [Adjectives and participles in the Latin Index European Pharmacopoeia (9th edition)]. *The humanities in the light of modern educational paradigms: abstracts of the 2nd Ukrainian scientific and practical conference with international participation*, Kharkiv, 19-20 April 2018. Kharkiv, 2018. Pp. 122–129. [in Ukrainian].
8. Svitlychna Ye. I., Savina V. V. Strukturnyi analiz nazv likarskykh zasobiv u mizhnarodnii farmatsevychnii nomenklaturi. [Structural analysis of the names of medicines in the international pharmaceutical nomenclature]. *Scientific Journal Virtus Issue*. 2019. № 31. P. 197–201. [in Ukrainian].
9. Svitlychna Ye. I., Savina V. V. Latynski khimichni nomeny u vitchyzniani ta mizhnarodnii farmatsevychnii nomenklaturi. [Latin chemical nomenclature in the Ukrainian and international pharmaceutical nomenclature]. *Scientific Journal Virtus Issue*. 2020. № 43. P. 207–213 [in Ukrainian].
10. European Pharmacopoeia 10.5 URL: <https://pheur.edqm.eu/home> (data zvernennia: 26.12.2020).
11. Mareckova E., Frantisek S., Gerveny L. Latin as the language of medical terminology: some remarks on its role and prospects. *Swiss Medical Weekly* 2002. No 23. 132(41–42). P. 581–587. URL: <https://pubmed.ncbi.nlm.nih.gov/12571757/> (data zvernennia: 26.10.2021).
12. A. Jagzape, T. Jagzape, S. Pathak. Medical Education Terminologies: Do These Really Percolate to the Level of Medical Students? A Survey. *Journal of Clinical and Diagnostic Research*. 2017. № Sept; 11(9). – URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5713760/> (data zvernennia: 26.10.2021).