sciendo

ISSN 2335-2019 (Print), ISSN 2335-2027 (Online)
Darnioji daugiakalbystė | Sustainable Multilingualism | *19*/2021
https://doi.org/10.2478/sm-2021-0018

Olesia Lazer-Pankiv
Taras Shevchenko National University of Kyiv, Ukraine
Iuliia Pysmenna
Taras Shevchenko National University of Kyiv, Ukraine

PECULIARITIES OF PHONETIC AND ORTHOGRAPHIC ADAPTATION OF LATIN TERMS IN ENGLISH CLINICAL TERMINOLOGY: ON THE ISSUE OF LATIN TERMINOLOGICAL COMPETENCE FORMATION OF FOREIGN MEDICAL STUDENTS

Summary. The article deals with the phonetic and orthographic adaptation of Latin terms in English clinical terminology in the context of Latin terminological competence formation of foreign medical students with English as the language of instruction. About 8,000 of the most common clinical terms selected from various lexicographic English sources have been studied on the basis of etymological and comparative approaches to demonstrate the grade of inconsistency in the reflection of Latin terms in modern English medical terminology. The quantitative analysis allowed us to determine and classify the main tendencies in the process of phonetic and orthographic development of Latin terms: (1) imitation of classical Latin spelling; (2) 'simplification' of classical Latin spelling; (3) syncretism of the first and second tendencies (parallel use of classical Latin and 'simplified' variants as synonyms). The analysis has also identified in some cases the phenomenon of 'hypercorrectness'. The lack of a unified norm is reflected in all the analyzed reference sources, complicating the lexicographic description of medical terms as well as the process of teaching / learning the medical terminology. The proposed solution is to develop and implement some unified criteria for phonetic and orthographic adaptation of Latin terms in English. The possible ways to solve the problem are either to adhere to the etymological principle, returning *ad fontes* of medical terminology, and to use only non-monophthongized and non-simplified forms or to use monophthongized and phonetically and graphically simplified forms following the norms of modern English. Consistent adherence to one system of rules for the development of Latin terms is a needed requirement for the proper formation of terminological competence in medical students and correct use of terminology in their further professional activity.

Keywords: clinical terminology; Latin language; phonetic and orthographic development of Latin terms; terminological competence.

Background and Purpose

The discipline *Latin Language and Medical Terminology* is mandatory in the training program of medical specialists in higher educational institutions.

In view of this, we fully concur with the opinion of researchers (including, in particular, Lysanets & Bieliaieva, 2018; Marečková et al., 2002), who argue that the formation of terminological competence of future medical professionals is impossible without mastering at least basic knowledge of Latin. Moreover, according to B. Džuganová, "the students' knowledge of basic medical Latin supports understanding of new English medical terms based on Latin" (1998, p. 551).

Important learning outcomes of foreign medical students who study the course *Latin Language and Medical Terminology* include a significant expansion of the professional English vocabulary, with English being a foreign language to the majority of students and used as a language of instruction. It is also necessary to mention the propaedeutic load of mastering Latin medical terminology before mastering other special disciplines. In this regard, the logical conclusion is reached by E. Marečková et al., that "it is debatable whether the English medical terminology can at all be reasonably mastered without the knowledge of basic Latin" (2002, p. 582).

An important factor that determines the medical students' need to study Latin is the number of Latin and Latinized Greek borrowings in English medical terminology (EMT). According to research data, at the current stage about 95% of special medical terminology are borrowed from or created on the basis of Latin and Latinized Greek (in particular, Bieliaieva et al., 2017; Qreshat, 2019), therefore "the vocabulary of any physician during a professional communication with other medical specialists comprises almost 70-80% of words of Latin and Greek origin" (Zhiljaeva, 2015). The functioning of national variants of medical terminology is also predominantly based on the Greek-Latin basis, "as most of the medical terms, which found their way into the national languages, were derived from medical Latin" (Wermuth & Verplaetse, 2018, p. 86).

Obviously, within the course *Latin Language and Medical Terminology* it is not possible to cover all aspects of the array of medical terminology that medical students will use in their future careers, especially given the fact that the estimated size of the actual medical vocabulary amounts to about 200,000 terms (Wermuth & Verplaetse, 2018, p. 87). Therefore, the selection of language material for the use in the educational process should be carried

out with a focus on the formation, primarily, systematic knowledge of the basic principles, patterns and norms of medical terminology, as well as the skills to apply them in their future professional activities.

In modern linguistic and methodological works, researchers pay attention mainly to the peculiarities of teaching EMT. They differentiate between etymological, definitive and comparative approaches to the formation of the terminological competence. M. Bujalková claims that "medical terms as well as all other groups of word classes can be studied from two basic points of view: etymology and definition" (2013, p. 477), as well as emphasizes the necessity of bringing cultural and historical aspects of the ancient and medieval medicine into the course, in order to "make didactic process more effective" (ibid.).

A. O. Brown also stressed the need for the etymological approach, stating that using orthographic deconstruction processes, such as the Etymological Approach, during the learning of scientific terminology may provide students with an independent learning tool, empower them with an ability to think critically and to transfer that knowledge to new learning situations, to provide a perspective on the structure / function properties of the new terminology, as well as to enable them to process lexical terminology at high cognitive levels (2014, p. 9).

We share the views of M. Bujalková (2013) and A. O. Brown (2014) but consider it necessary and methodologically justified to combine etymological and comparative approaches. Since our study is focused on the formation of Latin terminological competence (phonetic and orthographic aspect) of foreign medical students, who will use English both for their studies and future professional activity, we consider it appropriate to give parallel attention to the peculiarities of borrowing and adaptation of individual Latin term-elements (TE) and terms in the EMT.

Thus, the formation of Latin terminological competence (phonetic and orthographic aspect) of foreign medical students should be carried out on the basis of etymological and comparative approaches, i.e., it is necessary to teach phonetic and orthographic peculiarities of clinical terminology, applying the etymological analysis of English clinical terms and comparing phonetic and orthographic peculiarities of terms both in Latin (the source language)

and English (the recipient language). Personal experience of teaching the course *Latin Language and Medical Terminology* allow us to make the conclusion that the syncretic application of these approaches is appropriate at all language levels.

The formation of Latin terminological competence of foreign medical students is complicated to a certain degree due to "lack of international consistency" (Wermuth & Verplaetse, 2018, p. 104) (in particular, by the irregularity of the reproduction of phonetic and orthographic peculiarities of Latin and Latinized Greek terms). This problem is especially relevant for clinical terminology, which uses mainly Latinized Greek terms and TEs. According to M. Bujalková & D. Džuganová, "in medical terminology generally there can be observed two completely different phenomena: a very precisely worked-out, internationally standardized anatomical terminology and a quickly developing clinical terminology of all medical branches, characterized by a certain terminological chaos" (2015, p. 82). Thus, "in contrast to the anatomical terminology, clinical terms [...] are much less standardized, and there are no generally valid regulations regarding the formation of clinical terms" (Wermuth & Verplaetse, 2018, p. 91).

In this respect, the problem of formation of Latin terminological competence of medical students (in particular, phonetic and orthographic peculiarities of Latin terms and TEs as well as their representation in EMT) becomes especially relevant and merits high priority. The experience of teaching medical terminology for the foreign medical students (non-native English speakers) proves that the formation of Latin terminological competence is directly reflected in English terminological competence. It appears as an important aspect for the sustainable development of terminological multilingualism in the international medical community.

Our study aims to demonstrate the grade of inconsistency in the reflection of Latin medical terms and TEs in modern English medical terminology, which is an essential didactic problem in the aspect of terminological competence in a multilingual audience. The purpose of quantitative analysis is to determine and classify the main tendencies in the process of phonetic and orthographic development of Latin terms, reflected in English medical dictionaries. The complex usage of comparative,

etymological, and quantitative analysis is aimed at finding out the optimal solutions for the problem of unification of English medical terminology because of its functional pragmatics as a language of international professional communication.

Methods

Our study is based on a comparative, etymological and quantitative analysis of about 8,000 clinical terms collected by continuous sampling from English-language lexicographic sources (LS) (mostly specialized medical)[1]. When choosing LS, we were guided primarily by the principle of their availability on the Internet as supporting material for foreign students of medical specialties with English as the language of instruction within the course *Latin Language and Medical Terminology*. To give the full picture of the use of medical terms of Greek and Latin origin in modern EMT, the results of the analysis of phonetic and orthographic peculiarities of these terms in the International Classification of Diseases (ICD) were also applied. All the results of the quantitative analysis are presented in figures.

The analysis of phonetic and orthographic peculiarities of medical terms and TEs borrowed from Latin has revealed that the process of their development often takes place irregularly and not systematically, which gives rise to controversy concerning both lexicographic representation of medical terms and the issues of language teaching. Thus, we can outline the key points that determine the need for syncretic implementation of comparative and etymological approaches to formation Latin phonetic and orthographic competence of medical students with English as the language of instruction. We have selected the most commonly used Latin TEs in clinical terminology and analyzed the peculiarities of their phonetic and orthographic adaptation in English clinical terminological system.

[1] A list of all dictionaries that served as a source of illustrative material is given at the end of the article.

Digraphs 'ae' and 'oe'

Terms and TEs, which in Latin contain the digraphs 'ae' and 'oe' (Fig. 1, 2), in EMT can have two variants of phonetic and orthographic development:

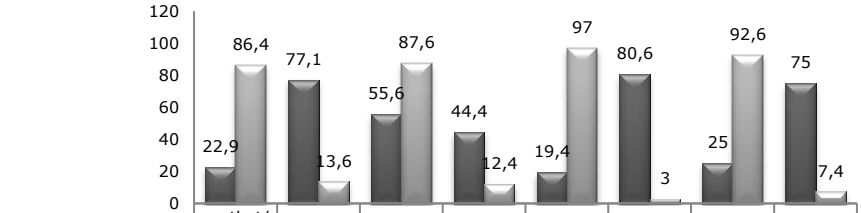
> (1) classical Latin digraph is represented in writing with the letter 'e' (for our purpose we use the term 'monophthongization'). D. Kachlika et al. view 'monophthongization' of the digraph 'ae' and its graphic representation in the form of one letter 'e' as a common mistake in the use of medical terminology (2009, p. 160).
>
> (2) classical Latin spelling of digraphs 'ae' and 'oe' with preservation of Latin reading /e/.

The use of 'monophthongized' and 'non-monophthongized' (classical Latin) spelling can be interpreted differently in English LS:

> (1) one alternative is treated as the only possible and correct;
>
> (2) both alternatives are treated as absolute synonyms (sometimes with an indication of the prevalence in British English or American English);
>
> (3) 'non-monophthongized' alternative is treated as a more archaic variant of 'monophthongized' (occasionally).

Figure 1

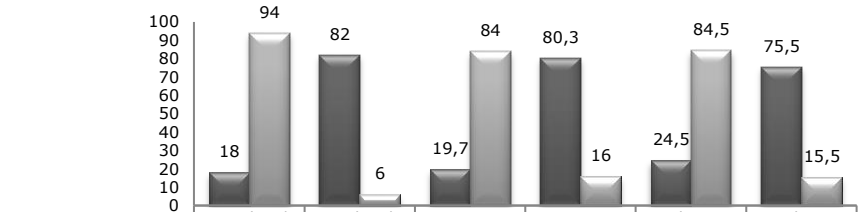
AE/E. The use of 'monophthongized' and 'non-monophthongized' phonetic-orthographic variants in lexicographic sources and ICD (in %)



	aesthet/o	esthet/o	haem/o	hem/o	gynaec/o	gynec/o	paed/o	ped/o
Lexicographic sources	22,9	77,1	55,6	44,4	19,4	80,6	25	75
ICD	86,4	13,6	87,6	12,4	97	3	92,6	7,4

Figure 2

OE/E. The use of 'monophthongized' and 'non-monophthongized' phonetic-orthographic variants in lexicographic sources and ICD (in %)



	oesophag/o	esophag/o	-pnoea	-pnea	-rhoea	-rhea
Lexicographic sources	18	82	19,7	80,3	24,5	75,5
ICD	94	6	84	16	84,5	15,5

Lexicographic sources ICD

aesthet/o, aesthesi/o Among the analyzed terms, including the TEs aesthet/o and aesthesi/o (< AG[2] αἴσθησις 'feeling'), there are only 46 cases out of 519 with the classical Latin spelling of the digraph 'ae' (e.g. acroparaesthesia CDM[3], para-anaesthesia SMD), in 327 cases it is represented in the 'monophthongized' form of 'e' (e.g. bathyanesthesia FPMD, thermanesthesia MKEDM) (8.9% and 63% of cases respectively).

Furthermore, in 146 dictionary entries (28.1%) 'monophthongized' and 'non-monophthongized' alternatives are presented as synonymous. In ACM, AHMD, CED, KWCD, MD, MKE, SMD 'monophthongized' alternatives are often interpreted as "US spelling", "in American English", "an Americanization of the Greek root" (e.g. hyperesthesia CED), and on the contrary, alternatives with preservation of classical Latin spelling in the above mentioned dictionaries are marked as "in British English", "an Anglicization of the Greek root", "the UK equivalent to the US…" respectively (e.g. anaesthetics SMD).

When considering parallel phonetic and orthographic alternatives, there are several points to be made. First, some LS provide a parallel 'monophthongized' (by analogy with the phonetic and spelling alternatives

[2] AG – ancient Greek. All the dictionary entries of ancient Greek words are given according to Dvoreckij, I. H. (1958). Drevnegrechesko-russkij slovar' [Ancient Greek – Russian vocabulary]. Moscow: Gos. izd-vo in. i nac. slovarej. (In Russian).
[3] See the list of dictionaries at the end of the article.

common in English clinical terminology) alternative 'anesthesia dolorosa' (MDHPN, MDDP) for the Latin term 'anaesthesia dolorosa'. Secondly, in three dictionary entries the phenomenon of 'hypercorrectness' is found: for the term 'acroanesthesia' there is a parallel alternative such as 'acroanaesthaesia' MDHPN, MDDP or 'acroparesthaesia' MDHPN, with a digraph in the syllable where its use cannot be etymologically justified.

In the ICD, among 154 terms that contain the TEs aesthet/o or aesthesi/o, 133 terms (86.4%) retain the etymologically correct spelling with the Latin digraph 'ae' (e.g. anaesthesiology, anaesthesia), and only 21 terms (13.6%) are the 'monophthongized' forms (e.g. hypoesthesia, anesthetist), wherein there are cases when the same term can have two forms (e.g. anaesthetic / anesthetic, dysaesthesia / dysesthesia, paraesthesia / paresthesia).

(h)aem(at)/o, -aemia The Latinized Greek TEs (h)aem(at)/o and -aemia (< AG αἷμα 'blood') can retain the form of haem(at)/o / hem(at)/o and -aemia / -emia in EMT. The analysis of entries in specialized LS made it possible to conclude that this TE is mainly used in the 'monophthongized' alternative (208 cases) (e.g. hemadsorption MKE, anemia MKE, FPMD etc.), whereas the use of the classical Latin digraph in this TE is far less common (166 cases) (e.g. haemophthalmia DOVS, haemolytic CDM etc.) (55,6% and 44,4% respectively). In some cases (in particular, in AHMD, ACM, CED, KWCD, MD, MKE) 'monophthongized' and 'non-monophthongized' alternatives are treated as American ("in American English") and British ("in British English") variants respectively (in particular, haemophobia, haematolysis). Instead, much more frequently, in LS (in particular, in AHMD, CDB, MDDP, MDHPN) 'monophthongized' and 'non-monophthongized' phonetic and orthographic alternatives are given as absolute synonyms without marking their spread and use (e.g. anemia / anaemia AHMD, hemolysinogen / haemolysinogen MDHPN).

We have also analyzed 2529 terms in the ICD, which contain the TEs haem(at)/o / hem(at)/o and -aemia / -emia. The vast majority of terms (2216 units constituting 87.6%) retain the Latin digraph 'ae' (e.g. haemangioma, haematopoietic, hypercalcaemia and many others), and only 313 terms (12.4%) are used with 'monophthongization' (e.g. hypoxemia,

thalassemia, hemodynamic etc.). The parallel use of certain terms in 'monophthongized' and 'non-monophthongized' variants (e.g. dyslipidaemia / dyslipidemia, haemochromatosis / hemochromatosis, haemothorax / hemothorax, uraemic / uremic as well as about some 50 other terms) is illustrative with regard to the lack of regularity and standardization of the use of this borrowed term in EMT. It is also true in relation to the use in one phrase of terms, which contain the analyzed TE in different phonetic and orthographic variants (e.g. "haemodialysis, hemofiltration, haemodiafiltration filters", "aleukemic leukaemia", "haemolytic–uremic" etc.).

gynaec/o According to CED and MD, the Latin TE gynaec/o (< AG γυνή 'woman'), retains the Latin spelling with the digraph 'ae' in British English ("gynaeco- is used outside the U.S."), while in American English its 'monophthongized' alternative gynec/o is used (ACM, AHMD, KWCD, MD, MKE). The MKE states that both alternatives can be used in parallel. However, the vast majority of the terms with the TE gynaec/o we have analyzed are used with the letter 'e' in place of the 'monophthongized' Latin digraph 'ae' (25 out of 31 cases of use, i.e. in 80.6% of cases) (e.g. gynaecomastia CDM, gynaecology SMD; gynephobia FPMD, gynemimetophilia SMD).

In the ICD the TE gynae(c)/o is used in a 'monophthongized' form only in the term 'neonatal gynecomastia', in all the other cases (about 30) – with preservation of the Latin digraph 'ae' (e.g. gynaecomastia, gynaephobia, gynaecological).

paed/o For the Latinized Greek TE paed/o (< AG παῖς 'child') English LS provide 'monophthongized' and 'non-monophthongized' alternatives in parallel: in some dictionaries (in particular, AHMD, DEL, KWCD, MDHPN) – as synonymous, in others – as characteristic of some versions of English (in particular, in CED and MD a 'non-monophthongized' variant of paed/o is marked "in British English / used outside the US", and a 'monophthongized' variant of ped/o – "in American English / esp US"). With regard to this term, it should be noted that the American Academy of Orthopaedic Surgeons has officially adopted the spelling 'orthopaedics' (MKE). At the same time, some LS provide only a 'monophthongized' variant (ACM, MD, MKE) or only a 'non-monophthongized' (CDB) variant. Among the analyzed cases of use of this

TE, the preference is given to the phonetic and orthographic variant with the letter 'e' (36 cases, e.g. pediatric FPMD, pediatrician MKE), while the spelling with the digraph 'ae' is preserved only in 12 cases (e.g. paedogenesis AHMD, orthopaedic FPMD) (75% and 25 % of cases of use respectively).

In the ICD the TE paed/o is used in the 'monophthongized' variant only in 6 cases out of 81 (7.4%), e.g. pediatric, orthopedic, instead of paediatric, orthopaedic.

(o)esophag/o, -(o)esophageal The analysis of the specialized LS revealed that among the terms, which include the TEs (o)esophag/o or -(o)esophageal (< AG οἰσοφάγος 'oesophagus'), there are 'non-monophthongized' variants with the digraph 'oe' in 18% cases, and the remaining 82% of terms contain 'monophthongized' esophag/o and -esophageal (27 and 122 cases respectively) (e.g. oesophagitis CDM, esophageal MDHPN). For the term 'oesophagus' in ACM, CED, MD and MKE, there are two possible variants, one of which ('monophthongized' esophagus) is interpreted as American, and the other ('non-monophthongized' oesophagus) – as British; in AHMD and DEL the variants of 'oesophagus' and 'esophagus' are given as synonymous without indicating the specifics of their use and spread.

In the use of the term 'oesophagus' and the TE oesophag/o in the ICD, there is a steady tendency to follow the traditional Latin spelling: the digraph 'oe' is preserved in 94% of cases (374 terms out of 396 analyzed), e.g. megaoesophagus, paraoesophageal, oesophagobronchial etc. The instability of the norm is evidenced by the parallel use of the terms 'oesophagus' / 'esophagus', 'oesophageal' / 'esophageal', 'oesophagitis' / 'esophagitis', as well as by the use of two terms with the specified TE in its different phonetic and orthographic variants in one sentence (e.g. "do not have apparent esophagitis or oesophageal mucosal injury"). In terms of linguodidactics, the functioning of parallel phonetic and orthographic variants oesophag- / esophag- leads to confusion primarily in the lexicographic representation (including alphabetical rubricating) of terms, which undoubtedly complicates the formation of terminological competence.

As for the term 'gastro-oesophageal / gastroesophageal' in the ICD, we have revealed a certain pattern in the use of 'monophthongized' and 'non-

monophthongized' alternatives: in the case where the Latin digraph is preserved, the term is spelled with a hyphen; if the digraph is 'monophthongized', the term is spelled as one word. However, such a use cannot be considered the norm, since there are the terms 'laryngotracheooesophageal' / 'laryngo-tracheo-oesophageal', 'tracheo-oesophageal' / 'tracheooesophageal' and 'oesophagogastric' / 'esophago-gastric', in which the use of the hyphen does not depend on the phonetic and orthographic characteristics of the TE (o)esophag/o.

-pno(e)a The variants -pnoea and -pnea correspond to the Latinized Greek TE -pnoea (< AG πνο(ι)ή / πνοιά 'breath') in EMT. Considering the analyzed entries in LS, we can state that in many cases (34, which is 24.8%) 'monophthongized' and 'non-monophthongized' variants are presented as synonymous, usually without any marking as for the peculiarities of their use (e.g. apnea / apnoea, hyperpnea / hyperpnoea DEL, FPMD, KWCD, MDHPN, MKE, OI etc.). Instead, the CDM states that 'monophthonged' variants are used in the United States, and 'non- monophthongized' variants are used in British English. However, in the vast majority of sources, only one of the alternatives is given: in 10 cases (7.3%) – 'non-monophthongized' variant (e.g. hypopnoea CDM), in 93 cases (67.9%) – 'monophthongized' variant (e.g. apnea MGH). The instability of phonetic and orthographic development of digraphs in English clinical terminology is clearly demonstrated by the use of two terms with different spelling of the analyzed TE in one phrase ("hypopneic of or relating to hypopnoea" in CED), as well as by the phenomenon of 'hypercorrectness', when there is a good understanding that the TE is spelled with a digraph, but a wrong one is used (eupnaea / eupnea CDB). The English pronunciation of the final TE -pn(o)ea is represented in writing by the orthographic variant orthopny, which is found in the OI and given as a synonym for orthopnea.

-rh(o)ea We have analyzed 487 terms with the final TE -rh(o)ea (< AG ῥοή / ῥοιά 'stream'), given in specialized LS: in 313 cases (64.5%) a 'monophthongized' variant is given as the only possible (e.g. albuminorrhea MD, bromomenorrhea MKEDM etc.), in 66 cases (13.5%) a 'non-monophthongized' spelling with the digraph 'oe' (e.g. otorrhoea CDM, saccharorrhoea SMD etc.) is proposed. It is important to emphasize that in

108 analyzed dictionary entries (22%) both variants are presented as synonyms, while in 24 entries the 'non-monophthongized' variant is marked as "Chiefly British" (e.g. galactorrhoea, gonorrhoea in AHMD, DEL, KWCD etc.), in other cases they are given as absolute synonyms (e.g. agalactorrhea / agalactorrhoea MDHPN, gastrorrhea / gastrorrhoea MDDP, polyrrhea / polyrrhoea MD etc.).

The final Greek-Latin TEs -pn(o)ea and -rh(o)ea in the vast majority of cases in the ICD retain the traditional Latin spelling with the digraph 'oe'. Thus, among the 189 analyzed terms with the TE -pn(o)ea, there are 30 cases (about 16%) of using the 'monophthongized' variant of the terms in parallel with the 'non-monophthongized' variant (e.g. apnoea / apnea, dyspnoea / dyspnea, tachypnoea / tachypnea). Approximately the same results were received after the analysis of the peculiarities of the use of the final TE -rh(o)ea: only in 35 out of 225 analyzed terms (15.5% of cases) there was 'monophthongization' of the digraph 'oe' (e.g. amenorrhoea / amenorrhea, seborrhoeic / seborrheic etc.).

koil/o, c(o)el/o, -cele In EMT the TE derived from AG κοῖλος 'hollow, empty' can have such alternatives as koil/o, coel/o and cel/o. The authors of LS adhere to different principles when giving these variants: in CED and WNWCD 'monophthongized' variants are marked as "a less frequent US spelling" (e.g., celiac, celom); in CED a 'non-monophthongized' variant is marked "in British". Many LS (39 dictionary entries, which is 22.7%) give 'monophthongized' and 'non-monophthongized' alternatives as synonymous without indicating the peculiarities of their spread or use (e.g., celiac / coeliac MDHPN, celom / coelom FPMD, pseudocele / pseudocoele MD). However, the use of just one of the alternatives is more common: in 26.2% (45 cases) the Latin digraph is preserved (e.g., coeloblastula MKE, enterocoele DEL), in 41.3% (71 cases) the letter 'e' is used instead of the Latin digraph (e.g. celitis FPMD, celiac MKE). The TE koil/o is used much less frequently (17 cases, which is 9.8%) (e.g., koilocyte MDDP; koilonychia CDM). Moreover, it is important to emphasize that of all the terms given with the TE koil/o, only for the term 'koilonychia' there is a possibility of parallel use of the phonetic and orthographic variant 'celonychia' (only in AHMD).

Along with the TE c(o)el/o (< AG κοῖλος 'hollow, empty'),

the Latinized AG final TE -cele (< AG κήλη ‘pouching, hernia’) is used (e.g. hydrocele, varicocele). In fact, the phonetic development of terms, which include the TE -cele, occurs without specificities and deviations: the spelling -cele is preserved everywhere (e.g., cardiocele MDHPN, cephalhematocele FPMD, choriocele MKE etc.). However, due to the above-mentioned peculiarities of the development of TEs derived from the AG lexical tokens κήλη, ή and κοῖλος, in English clinical terminology they become homonyms, and in some dictionaries they are even given in one dictionary entry (in particular, in FPMDN, MD, MD, MD), with the emphasis placed on the necessity to “distinguish carefully among the various senses of this stem”.

Furthermore, such confusion of these “quasi-homonymous” TEs leads to ‘hypercorrectness’: for the terms that include -cele, etymologically related to κήλη, ή, the phonetic and orthographic variant -coele is given (in particular, in FPMD, MD, MDHPN, MKE and SMD in the dictionary entry “-cele”). We have also found a case of using a TE with the digraph ‘oe’ in the case when its use is not due to etymology: colpocoele (CDM).

A similar situation is found in the ICD. The analysis of the spelling peculiarities of the TEs c(o)el/o and -cele in the ICD proved the lack of a certain norm of their use. Thus, the TE c(o)el/o, derived from κοῖλος is used both in the ‘monophthongized’ (cel/o) and in the ‘non- monophthongized’ (coel/o) variants (20.9% (12 cases) and 75.8 % (44 cases) respectively), yet the same term may have parallel forms, e.g., celoschisis / coeloschisis, celiac / coeliac. The phonetic and orthographic variant koil/o is used just twice, which is 3.4% of all cases of use of the analyzed TE.

Diphthong ‘ei’

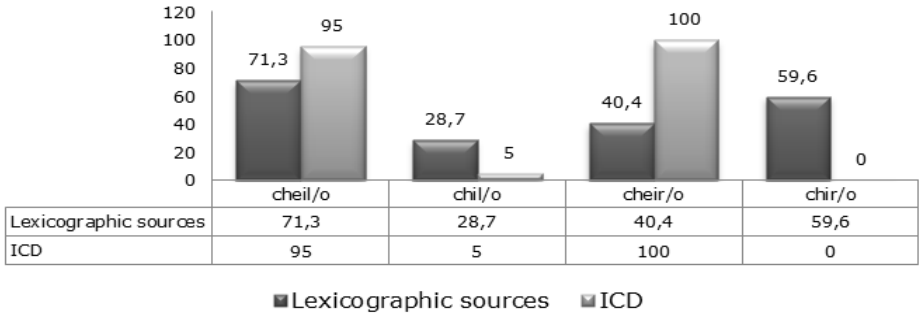
In English clinical terminology, for terms that include Latinized Greek TEs with the diphthong ‘ei’, the parallel use of ‘monophthongized’ (with ‘i’) and ‘non-monophthongized’ (with ‘ei’) variants is allowable (without indicating the predominant use of one of them) (Fig. 3).

ch(e)il/o, -ch(e)ilia The English equivalents of the Latin TEs cheil/o and -cheilia (< AG χεῖλος ‘lip’) are ch(e)il/o and -ch(e)ilia (FPMD, MD, MDDP,

MDHPN). The vast majority of LS give only the 'non-monophthongized' phonetic and orthographic variant cheil/o (54 cases, e.g. acheilia SMD, cheilion CDM etc.). In contrast, the 'monophthongized' variant chil/o is used much less frequently (only 8 cases, e.g., synchilia MKE, xerochilia MDDP etc.) (50% and 7.4% respectively).

Figure 3

EI/I. The use of 'monophthongized' and 'non-monophthongized' phonetic-orthographic variants in lexicographic sources and ICD (in %)



	cheil/o	chil/o	cheir/o	chir/o
Lexicographic sources	71,3	28,7	40,4	59,6
ICD	95	5	100	0

It is important to emphasize that in 46 of the analyzed dictionary entries (42.6% of cases) both variants are given as synonyms without a certain marking as for the specificities of their use (although the main variant is considered to be with a diphthong), e.g., cheilitis / chilitis FPMD, cheiloplasty / chiloplasty AHMD, pachycheilia / pachychilia MDHPN etc. The 'non- monophthongized' cheil/o is marked as "less commonly" only in MW.

In MD the graphic variant chelitis is found (which is not found in any other LS), the existence of which, in our opinion, became possible due to the peculiarities of the English pronunciation.

ch(e)ir/o, -ch(e)iria As for the TEs ch(e)ir/o and –ch(e)iria (< AG χείρ 'hand'), both in British English and American English, the parallel use of 'monophthongized' and 'non-monophthongized' variants is allowable, as stated in CDM, CED, FPMD, MD and MDHPN. According to MD and MDHPN, the use of the 'monophthongized' variant is typical of American English.

However, in WNWCD, the 'non-monophthongized' variant cheir/o is interpreted as American.

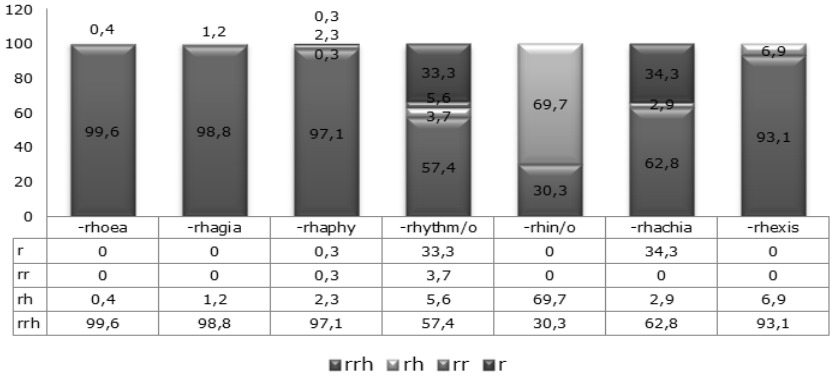
The results of the analysis of LS demonstrated that in the vast majority of cases the 'monophthongized' variant with the letter 'i' is used (62 cases, e.g. chiragra MD, chiromegaly SMD, chiropractic GEM etc.), while the 'non-monophthongized' variant with the diphthong 'ei' is less frequent (37 cases, e.g. cheirokinesthetic FPMD, cheirospasm MDHPN etc.); still there are numerous cases when both variants are given as synonymous (31 cases, e.g. allocheiria / allochiria CED, cheiroplasty / chiroplasty AHMD, dicheiria / dichiria FPMD etc.) (47.7%, 28.5% and 23.8 % respectively).

According to the results of the analysis, the use of the TEs ch(e)il/o and ch(e)ir/o in the ICD is the most standardized if compared to other terms and TEs that contain a diphthong or digraph: since for cheil/o there is only one term out of 20 analyzed, in which the aforementioned TE is used with 'monophthongization' (e.g. chilomastigiasis, but cheilitis, blepharocheilodontic, cheilodynia etc.), and for the TE cheir/o the use of the 'monophthongized' variant chir/o has not been detected (e.g. cheirospondyloenchondromatosis, cheiromegaly, acheiria etc.).

Letter Combination 'rh'

Figure 4

Phonetic and orthographic variants of terms with term-elements, which originate from Greek lexical tokens with the initial letter 'ῥ' in lexicographic sources (in %)



	-rhoea	-rhagia	-rhaphy	-rhythm/o	-rhin/o	-rhachia	-rhexis
r	0	0	0,3	33,3	0	34,3	0
rr	0	0	0,3	3,7	0	0	0
rh	0,4	1,2	2,3	5,6	69,7	2,9	6,9
rrh	99,6	98,8	97,1	57,4	30,3	62,8	93,1

As we have observed, vital attention should be given to the analysis of the peculiarities of phonetic and orthographic development of TEs, which originate from the AG lexical tokens with the initial letter ῥ-, in particular: -rhachia, -rhachicus; -rhagia, -rhagicus; -rhaphia; -rhexis; -rhoea, -rhoideus, -rhoeicus; -rhin/o; -rhythm/o) (Fig. 4).

We have identified the following possible phonetic and orthographic variants of joining the final TEs with the initial 'rh' that occur in English clinical terminology:

(1) there is double 'r' and a graphical representation of aspiration is preserved: 'rrh'. In fact, such use is normative and prescribed in some LS. In particular, the FPMD states: "the diagraph rh occurring at the beginning of a syllable in a word of Greek origin is ordinarily changed to rrh when a prefix or other lexical element is placed before it". It is worth noting that this rule applies only when joining TEs with the initial 'rh' after a vowel, although it is not stressed;

(2) there is no doubling, but aspiration is preserved: 'rh';

(3) there is doubling, but aspiration is not reflected: 'rr';

(4) there is no doubling and aspiration is not reflected: 'r'.

In many LS, several of the aforementioned phonetic and orthographic variants are given as synonymous without indicating the specificity of their use.

-rh(o)ea, -rhoid, -rh(o)eic In English clinical terminology, the use of the final TE -rh(o)ea and derivative adjectival formants -rhoid, -rh(o)eic (< AG ῥοή / ῥοιά 'stream') is the most normalized (e.g. amenorrheic FPMD, hemorrhoid MD). Out of the 448 cases of their use, only in two terms (0.4%) there is a deviation from the rule: the term 'cholerheic' (FPMD) does not have double 'r', and the term 'bronchorrhea' has a parallel variant 'bronchorroea' (MDHPN) without indication of aspiration.

-rhage (-rhagia), -rhagic This rule is regularly applied for the TEs -rhage (-rhagia), -rhagic (< AG ῥήγνυμι 'break'): in 253 cases (98.8%) there is double 'r' and aspiration (e.g., balanorrhagia MKE, colorrhagia MDHPN, hemorrhagic diathesis MGH) and only three dictionary entries (1.2%) give

synonyms to normative variants without doubling (e.g. subarachnoid hemorrhage / subarachnoid haemorhage MDDP).

-rhaphy Among the 305 analyzed terms with the TE -rhaphy (< AG ῥαφή 'stitch'), there are 296 cases (97.1%) with doubling and aspiration reflected in spelling (e.g., herniorrhaphy AHMD, CDM, FPMD, GEM, MDHPN, MKE). There are 7 cases (2.3%) without aspiration and doubling (e.g., uraniscoraphy WRUD, staphylorrhaphy / staphyloraphy DEL) and two cases (0.3%) without aspiration or without doubling (e.g. orchidorraphy / orchiorrhaphy FPMD, -rrhaphy / rhaphy KWCD) that are given only as synonymous to regular phonetic and orthographic variants with doubling and aspiration.

In fact, such variability is characteristic of the term 'r(h)aphe', which, as noted in some dictionaries, can be used with or without the marking of aspiration (raphe or rhaphe): "although r at the beginning of a Greek word is usually followed by h in English spelling, this word is correctly spelled either raphe or rhaphe" (in particular, AHMD, FPMD, MDDP, MDHPN). So, for example, we see raphe in CED marked "in British English", in MM and WNWCD – marked "in American English".

-rhythm/o Certain phonetic and orthographic peculiarities are characteristic of those terms in which the TE -rhythm/o (< AG ῥυθμός 'rhythm') is added to the initial TE with a final vowel sound. Among 108 terms with the TE rhythm/o used after a vowel, there were 62 cases (57.9%) of doubling 'r' and aspiration (e.g., pararrhythmia FPMD, MDHPN), 36 cases (33,6%) where doubling does not occur (e.g. arhythmia CED; bradyrhythmia MD), 5 cases (4.7%) with no doubling and aspiration, 4 cases (3.8%) without aspiration (e.g. arrhythmia / arhythmia / arythmia CED, arrhythmic / arhythmic / arythmic / arrythmic OI, arrythmia GEM). It is important to emphasize that 16 terms from the last three groups are given in dictionary entries as synonymous to normative variants with doubling and aspiration (CED, OI). Instead, after a consonant, the aforementioned term is regularly used without double 'r', but with aspiration (e.g., dysrhythmia MDHPN, MKE, KWCD, AHMD, dysrhythmic CED, tachydysrhythmia MKE etc.).

-rhin/o The same system is characteristic of the use of the TE -rhin/o (< AG ῥίς 'nose'). In general, on the basis of the analysis of 33 terms

with the TE -rhin/o, it can be concluded that the use of phonetic and orthographic variants without doubling, but with aspiration (23 cases, which is 69.7%, e.g. arhinia MDHPN, MKE, dacryocystorhinostomy MDHPN, MKE, AHMD, monorhinic FPMD, MD) is more common, and only 3 of them are synonymous with regular variants (e.g. arrhinencephaly FPMD / arhinencephaly MD; leptorrhine CED / leptorhine MD; catarrhinian KWCD / catarrhine DEL / catarhine CED). In contrast, regular variants with doubling and aspiration are much less common (10 cases, which is 30.3%, e.g., arrhinencephalia MGH, macrorrhinia MKE, mesorrhine FPMD).

-rhachia, -rhachic When using the final TE -rhachia / -rhachic (< AG ῥάχις 'spine'), in 22 cases (62.8%) there is a regular double 'r' and persistence of aspiration (e.g., craniorrhachischisis MDHPN), in 12 cases (34.3%) the variants with the letter 'r' without doubling and reproduction of aspiration are used (e.g., bilirachia MKE). There was also one case (2.9%) of the use of this TE without doubling, but with aspiration (atelorhachidia MD).

-rhexis Among 87 terms that contain the TE -rhexis (< AG ῥῆξις 'tear'), deviations from the norms of phonetic and orthographic development are observed only in 6 cases (6.9%), while in 4 cases they are manifested in omission of doubling 'r' (e.g., capsulorhexis MD, MDOVS; iridorhexis MKEDM; keratorhexis MKEDM), and in two cases the variants with double 'r' and without it are given as synonymous (e.g., keratorhexis / keratorrhexis FPMD, MDHPN). In other terms, when the TE -rhexis is added, aspiration is preserved, and double 'r' occurs (e.g., angiorrhexis MD).

In the ICD there were no cases of deviation from the rule of joining the final TEs formed from AG lexical tokens with the initial 'ῥ': when joining these TEs after a vowel sound, doubling occurs (e.g., haemorrhage, bronchorrhoea, haemorrhoid, arrhythmic, arrhinia etc.); if these TEs are joined to the initial TE, which ends in a consonant sound, doubling does not occur: dysrhythmia, dysraphism.

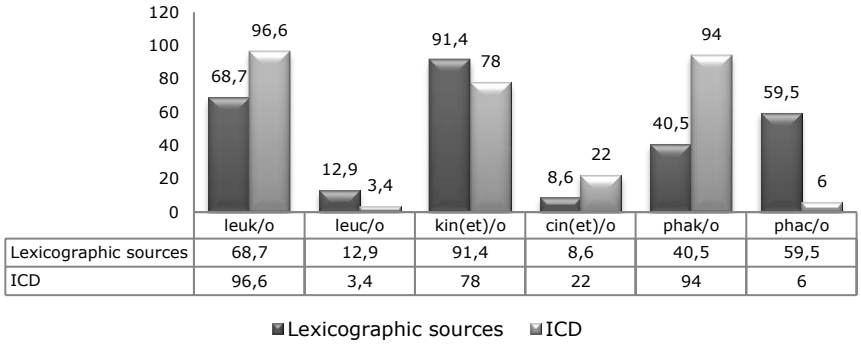
Greek Letter 'κ'

In terms of the formation of Latin phonetic and orthographic competence of medical students, it is important to pay attention to the peculiarities of

phonetic and orthographic development of Latinized clinical terms of Greek origin, which contained the letter 'κ' in AG. In English clinical terminology for such terms, it is possible to use parallel variants with the letters 'c' / 'k' or to exclusively use only one of the variants. Among the most commonly used TEs of this group are cephal/o / kephal/o, -cephalia, glyc/o / glyk/o, phac/o / phak/o, -phacia / phakia and kin(et)/o, kinesi/o, -kinesia, -kinesis) (Fig. 5).

Figure 5

Phonetic and orthographic variants of terms with term-elements, which originate from Greek lexical tokens with the initial letter 'κ' in lexicographic sources and ICD (in %)



	leuk/o	leuc/o	kin(et)/o	cin(et)/o	phak/o	phac/o
Lexicographic sources	68,7	12,9	91,4	8,6	40,5	59,5
ICD	96,6	3,4	78	22	94	6

kin(et)/o / cin(et)/o, kinesi/o / cinesi/o, -kinesia / -cinesia, -kinesis / -cinesis The alternatives for TEs kin(et)/o / cin(et)/o; kinesi/o / cinesi/o; -kinesia / -cinesia; -kinesis / -cinesis (< AG κινέω 'move', κίνησις 'movement') are English variants kin(et)/o / cin(et)/o; kinesi/o / cinesi/o; -kinesia / -cinesia; -kinesis / -cinesis. In the analyzed LS, the use of these TEs with the letter 'k' significantly exceeds the use of those with the letter 'c' (466 cases compared to 29; 88.4% and 5.5% of cases respectively) (e.g. acrocinetic SMD, anesthecinesia MKE, cinegastroscopy FPMD; akinesia GEM, biokinetics MDHPN, dyskinesia DEL etc.). In 32 dictionary entries (6.1% of cases) such variants are presented as synonyms (e.g., bradykinesia / bradycinesia, adiadochokinesis / adiadochocinesis, acrocinesia / acrokinesia FPMD, synkinesis / syncinesis MDHPN etc.). In SMD, phonetic and

orthographic variants of the term 'paleocinesis / paleokinesis' are even given in separate dictionary entries. The lack of regularity in lexicographic description is complicated by different phonetic development of the etymologically Greek term in Latin and English. In classical Latin phonetics, the letter 'c' is pronounced as /k/ in all positions, but in English, when it precedes 'i', it is pronounced as /s/, thus, due to the functioning of parallel variants, the relation between the sound form and the graphic form of the term, as well as its meaning, is broken, which leads to certain methodological difficulties in the process of terminological competence formation.

phak/o / phac/o, -phakia / -phacia There is also a lack of regularity in presenting of the AG letter 'κ' in EMT in the TEs phak/o / phac/o and -phakia / -phacia (< AG φακός 'lentils'). For the terms that include the TE phak/o / phac/o, in 16 of the analyzed dictionary entries (i.e., in 13.8% of cases) both phonetic and orthographic variants are given as synonymous (e.g. aphakia / aphacia MD, phakoemulsification / phacoemulsification MDHPN, phakoma / phacoma FPMD, phakitis / phacitis MD etc.). However, in the vast majority of cases, there is only one variant: either with the letter 'k' (39 cases, e.g. keratophakia AHMD, CDM, DOVS, FPMD, MDHPN, MKE, pseudoaphakia DOVS, FPMD, MDHPN, spherophakia DOVS, FPMD, MDHPN, MKE etc.) or with the letter 'c' (62 cases, e.g. phacoanaphylaxis FPMD, MKE, periphacitis MD, MKE, phacocystectomy AHMD, FPMD, MKE) as the only correct one (33.6% and 52.6% respectively).

leuk/o / leuc/o Another tendency can be traced in the use of the TE leuk/o / leuc/o (< AG λευκός 'light'). In the vast majority of cases, it is given with the letter 'k' (314 cases out of 457, which is 68.7%, e.g., erythroleukemia MKE, leukemic MDHPN, leukemogen SMD). The variant leuc/o is used only in 59 cases (12.9%, e.g., leucorrhoea CDM, leucapheresis MDHPN). Quite often in dictionary entries both variants are given as synonymous (84 cases, i.e., 18.4%, e.g. leucapheresis / leukapheresis MDHPN, leucoderma / leukoderma CED, leucotomy / leukotomy AHMD).

Among the analyzed TEs, the reproduction of the Latinized AG TEs -cele (< AG κήλη 'distention, tumor'), cephal/o / -cephalia (< AG κεφαλή 'head'), glyc/o (< AG γλυκύς 'sweet') and gyn(a)ec/o (< AG γυνή 'woman') is

the most standardized in English clinical terminology. These TEs are not presented in phonetic and orthographic variants with the letter 'k' in any of the analyzed LS (e.g., hydrocele MKE, varicocele MGH, MDHPN, cephalhydrocele FPMD, MDHPN; encephalatrophy MKE, MDHPN, MD; glycocalyx MDHPN, hypoglycaemia SMD, glycolysis MKE, glycogen FPMD; gynaecomastia CDM, gynaecology SMD etc.).

The analysis of terms in ICD, which include the TEs -cele, cephal/o (-cephalia), glyc/o and gyn(a)ec/o (71, 408, 196 and 26 cases respectively), did not reveal any cases of their use with the letter 'k' (e.g., cephalgia, brachiocephalic, cephalosyndactyly; hyperglycaemia, glycogen, glycolysis etc.). Instead, for the terms with the TEs phac/o / phak/o, -phacia / -phakia; kin(et)/o / cin(et)/o, kinesi/o / cinesi/o, -kinesia / -cinesia, -kinesis / -cinesis and leuk/o / leuc/o ICD, the use of the variants with the letter 'k' is preferential (16, 50 and 337 cases respectively, e.g. aphakia, pseudophakia, microspherophakia; dyskinesia, kinesthesia, kinematic etc.), but sporadically there are also variants with the letter 'c' (1, 14 and 12 cases, which is 6%, 22% and 3.4% respectively, e.g. phacoantigenic, acinetobacter, leucocytoclastic etc.).

Conclusions

Thus, we have studied the peculiarities of phonetic and orthographic development of Latin TEs in English clinical terminology (about 8,000 items) on the basis of comparative and etymological approaches with the involvement of quantitative analysis. The study made it possible, on the one hand, to prove the lack of norms and regularity, and even certain chaos of the process, and on the other, to identify its main trends and outline some possible ways to solve the problem. Following the purpose of the study, based on a complex analysis of English medical lexicographic sources, we identified the main trends for the adaptation of Latin TEs in English clinical terminology:

(1) preservation of the classical Latin spelling (in particular, preservation of the digraphs 'ae' and 'oe', the diphthong 'ei',

reproduction of doubling and aspiration in writing when joining the final TEs with the initial 'rh', preservation of the spelling of the letter 'k' in Latin TEs of Greek origin in place of the AG letter 'κ');

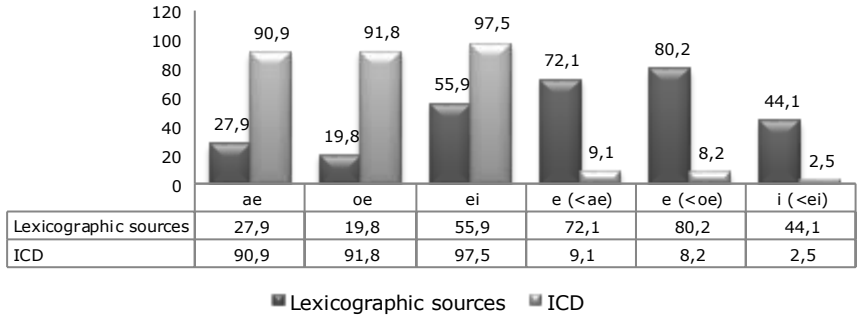
(2) a certain 'simplification' (compared to Latin root words) of the classical Latin spelling (in particular, 'monophthongization' of digraphs and diphthongs, consequently the use of the letter 'e' in place of Latin digraphs 'ae' and 'oe', the letter 'i' in place of the diphthong 'ei'; no doubling and / or aspiration when joining the final TEs with initial 'rh'; the replacement of the letter 'k' in Latin TEs of Greek origin with the letter 'c');

(3) syncretism of the first and second tendencies, which is manifested in the parallel use of classical Latin and 'simplified' variants as synonyms (sometimes with a certain marking as for the peculiarities of their spread and use).

It is important to emphasize that none of the analyzed LS can be characterized as fully complying with all the norms of phonetic and orthographic development of Latin terms and TEs within only one of the tendencies mentioned. The lack of regularity and a unified norm is reflected even in ICD.

Figure 6

The use of 'monophthongized' and 'non-monophthongized' phonetic-orthographic variants in lexicographic sources and ICD (in %)



	ae	oe	ei	e (<ae)	e (<oe)	i (<ei)
Lexicographic sources	27,9	19,8	55,9	72,1	80,2	44,1
ICD	90,9	91,8	97,5	9,1	8,2	2,5

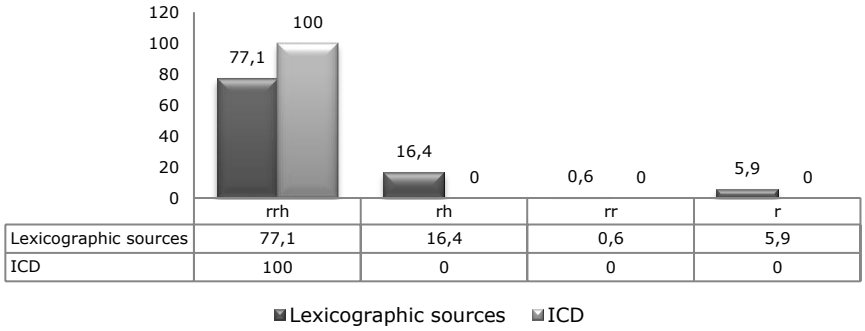
As can be seen from the quantitative ratio (in %) of clinical terms in which the classical Latin norms of spelling digraphs and diphthongs are observed

and 'simplified' ('monophthongized') (Fig. 6), in the analyzed LS there is a tendency to 'simplification' ('monophthongization'), while in ICD there is a tendency to adhere to the Latin rules of spelling.

The phonetic and orthographic development of TEs that originate from AG lexical tokens with the initial letter 'ῥ' is more unified. Although some LS provide a rule for doubling 'r' and reflecting aspiration in writing ('rrh'), it needs to be clarified and concretized (in particular, for the use of such TEs after consonants and diphthongs). As can be seen from the diagram (Fig. 7), in the analyzed LS most terms are given in compliance with the norms of Latin spelling: with double 'r' and with reflection of aspiration in writing ('rrh'), while in ICD there are no cases of variation from the norm at all.

Figure 7

Phonetic and orthographic variants of terms derived from Greek lexical tokens with the initial letter 'ῥ' in lexicographic sources and ICD (in %)

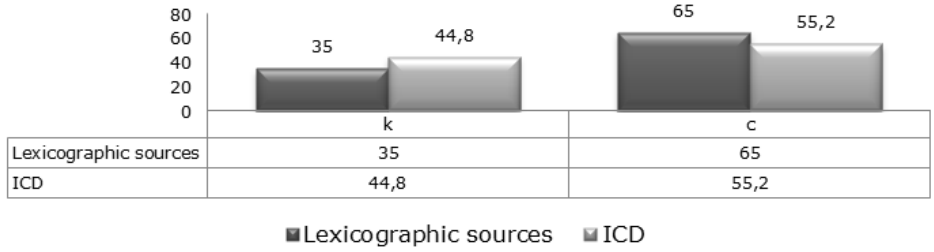


	rrh	rh	rr	r
Lexicographic sources	77,1	16,4	0,6	5,9
ICD	100	0	0	0

The reproduction of Latin TEs derived from AG lexical tokens containing the letter 'κ' is also non-unified in English clinical terminology. Some terms are characterized by the use of 'k' in almost 100% of cases in LS, while in ICD – only with the letter 'c', and for others – vice versa. In general, we can say that both in the analyzed LS and ICD, the two variants are common (with a slight advantage of the variants with the letter 'c') (Fig. 8).

Figure 8

The use of phonetic and orthographic variants of term-elements derived from Greek lexical tokens containing the letter 'κ' in lexicographic sources and ICD (in %)



	k	c
Lexicographic sources	35	65
ICD	44,8	55,2

We cannot overlook the phenomenon of so-called 'hypercorrectness', which is the excessive application of the rules of phonetic and orthographic adaptation in the reproduction of Latinized AG TEs in English clinical terminology. In particular, the cases of use of digraphs 'ae' and 'oe' (instead of 'e') that are not etymologically justified were revealed. Moreover, there were cases in which the term was represented by a combination of letters in writing, homophonous to the correct spelling, but incorrect in terms of etymology of the term.

The lack of clearly defined principles of phonetic and orthographic development of individual Greek and Latin letters and letter combinations causes instability in the spelling of Latin terms and TEs in English clinical terminology as well as the parallel functioning of numerous phonetic and orthographic variants. The implementation of various tendencies in phonetic and orthographic development of Latin TEs creates contradictions in the lexicographic representation of terms, including differences in the alphabetical rubricating of terms, duplication of lexicographic entries, the emergence of pseudo-homonymous forms, etc.

As our own pedagogical experience shows, in the process of teaching, phonetic and graphic multivariativity and lack of unambiguous standardization of clinical terms, breakdown of relation between the external form of the term and its meaning complicates the formation of terminological

competence in medical students. Therefore, it seems practically necessary to develop and implement some unified criteria for phonetic and orthographic development of Latin clinical terms in English. In our opinion the only possible way to solve the problem of formation of terminological competence in foreign students of medical specialties is to consistently adhere to the principles and norms of phonetic and orthographic adaptation of Latin terms, for example, to use (based on the etymological principle, returning *ad fontes* of medical terminology) only non-monophthongized and non-simplified forms. Thus, we believe that it would be the right thing to preserve the Latin digraphs ‘ae’ and ‘oe’, the diphthong ‘ei’, the letter combination ‘rrh’ and the letter ‘k’ (to replace Greek ‘κ’) in the original spelling found in the Latin TE. Another possible solution, in our opinion, is to use only monophthongized and phonetically and graphically simplified forms according to the norms of modern English. In this case, it would be right to use 'e' instead of Latin digraphs 'ae' and 'oe', 'i' instead of Latin diphthong 'ei', the letter combination 'rh' and the letter 'c' instead of 'k' (to replace Greek 'κ').

Given the quantitative data, we strongly believe that phonetic and orthographic characteristics of terminology of Greek and Latin origin as well as the explanation of the principles of their development in modern English need much attention to be paid to in multilingual class, since it is a vital component of the formation of terminological competence in medical students and a needed requirement for the proper use of terminology in their further professional activity.

It is certainly impossible to cover the whole array of clinical terms that will be used by medical students in their future professional activities within one article. We have outlined the most important (according to our observations in the teaching process) aspects of phonetic and orthographic adaptation of terms and TEs borrowed from Latin which are the most common in English clinical terminology. Therefore, we were forced to overlook such TEs as (a)eti-, c(o)en-, (a)eter-, -coria / -koria, -plakia / -placia, -kerat- / -cerat-, -kraur- / -craur-.

References

Bieliaieva, O. M., Lysanets, Y. V., Znamenska, I. V., Rozhenko, I. V., & Nikolaieva, N. M. (2017). Terminological collocations in medical Latin and English: a comparative study. *Wiad Lek*, *70*(1), 139–43.

Brown, A. O. (2014). Lexical access, knowledge transfer and meaningful learning of scientific terminology via an etymological approach. *International Journal of Biology Education*, *3*(2). https://bit.ly/2UG7tea

Bujalková, M., & Džuganová, B. (2015). English and Latin corpora of medical terms – a comparative study. *IJHSSE*, *2*(12), 82–91.

Bujalková, M. (2013). Are the methods to use historical lexicology (etymology) in contemporary medical terminology teaching reasonable? *JaHR*, *4*(7), 469–478.

Džuganová, B. (1998). Word analysis – a useful tool in learning the language of medicine in English. *Bratislavske lekarske listy*, *99*(10), 551–553. https://bit.ly/3eVUmw5

Kachlika, D., Bozdechovac, I., Cech, P., Musil, V., & Baca, V. (2009). Mistakes in the usage of anatomical terminology in clinical practice. *Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub*, *153*(2), 157–162.

Lysanets, Y. V., & Bieliaieva, O. M. (2018). The use of Latin terminology in medical case reports: quantitative, structural, and thematic analysis. *Journal of Medical Case Reports*, *12*(45). https://bit.ly/3BOOheW

Marečková, E., Šimon, F., & Červený, L. (2002). Latin as the language of medical terminology: some remarks on its role and prospects. *Swiss Med Wkly*, *132*(41–42), 581–587.

Qreshat, J. Y. (2019). The history of loan words in English and its impact on the English Lexicon. *Journal of Critical Reviews*, *6*(6). https://bit.ly/2TyrJO6

Wermuth, M.-C., & Verplaetse, H. (2018). Medical terminology in the Western world: Current situation. In: A. Alsulaiman, & A. Allaithy (Eds.), *Handbook of Terminology*. Vol. 2, Terminology in the Arab world (pp. 84–108). John Benjamins Publishing Company.

Zhiljaeva, O. A. (2015). Terminological Competence of Future Medical Professionals. https://bit.ly/2V7Owkg

Sources

[ACM] Embree, M. (2077, 2013). *Abused, Confused, & Misused Words*. https://bit.ly/3eVkgQz

[AHMD] *The American Heritage Medical Dictionary*. (2007). https://bit.ly/3eVkgQz

[CDB] Hale, W. G., Saunders, V. A., Margham, J. P. (2005). *Collins Dictionary of Biology*. https://bit.ly/3eVkgQz

[CDM] *Collins Dictionary of Medicine*. (2004, 2005). https://bit.ly/3eVkgQz; https://www.collinsdictionary.com

[CED] *Collins English Dictionary – Complete and Unabridged*. (2014). Harper Collins Publishers. https://bit.ly/3eVkgQz

[DEL] *Dictionary of the English Language*. (2016). Fifth Edition. Houghton Mifflin Harcourt Publishing Company. https://bit.ly/3eVkgQz

[DOVS] *Millodot: Dictionary of Optometry and Visual Science*. (2009). Butterworth-Heinemann. https://bit.ly/3eVkgQz

[FPMD] *Farlex Partner Medical Dictionary*. (2012). https://bit.ly/3eVkgQz

[GEM] *Gale Encyclopedia of Medicine*. (2008). https://bit.ly/3eVkgQz

[ICD] *International classification of diseases – Mortality and morbidity statistics*. 11th Revision. World Health Organisation. https://icd.who.int/browse11/l-m/en

[KWCD] *Kernerman Webster's College Dictionary*. (2010). Random House, Inc. https://bit.ly/3eVkgQz

[MD] *Medical Dictionary*. (2009). https://bit.ly/3eVkgQz

[MDDP] *Medical Dictionary for the Dental Professions*. (2012). https://bit.ly/3eVkgQz

[MDHPN] *Medical Dictionary for the Health Professions and Nursing*. (2012). https://bit.ly/3eVkgQz

[MGH] *McGraw-Hill Concise Dictionary of Modern Medicine*. (2002). https://bit.ly/3eVkgQz

[MKE] *Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and*

Allied Health. (2003). https://bit.ly/3eVkgQz

[MM] *Most material*. (2019). Penguin Random House LLC and HarperCollins Publishers Ltd. https://bit.ly/3eVkgQz

[MW] Merriam-Webster.com. 2011. https://www.merriam-webster.com

[OI] -*Ologies & -Isms*. (2008). https://bit.ly/3eVkgQz

[SMD] Segen's Medical Dictionary. (2011). https://bit.ly/3eVkgQz

[TCMD] Venes, D. *Taber's Cyclopedic Medical Dictionary*. https://bit.ly/3zylE3v

[WNWCD] *Webster's New World College Dictionary*. (2010). Houghton Mifflin Harcourt. https://bit.ly/3eVkgQz

[WRUD] *Webster's Revised Unabridged Dictionary*. (1913). G. & C. Merriam Co. https://bit.ly/3eVkgQz

Olesia Lazer-Pankiv
Kijevo Taraso Ševčenkos nacionalinis universitetas, Ukraina
olazerpankiv@gmail.com
Iuliia Pysmenna
Kijevo Taraso Ševčenkos nacionalinis universitetas, Ukraina
pysmennaju@gmail.com

LOTYNŲ KALBOS TERMINŲ FONETINĖS IR ORTOGRAFINĖS ADAPTACIJOS YPATUMAI ANGLŲ KALBOS KLINIKINĖJE TERMINOLOGIJOJE: UŽSIENIO MEDICINOS STUDENTŲ LOTYNIŠKOS TERMINOLOGINĖS KOMPETENCIJOS FORMAVIMAS

Santrauka. Straipsnyje nagrinėjama, kaip lotyniški medicinos terminai fonetiškai ir ortografiškai vartojami profesinėje anglų kalbos terminologijoje. Tyrimą paskatino anglakalbių užsienio studentų poreikis mokytis specialybės lotynų kalbos. Apie 8 000 dažniausiai pasitaikančių klinikinių terminų, atrinktų iš įvairių leksikografinių anglų kalbos šaltinių, buvo ištirti remiantis etimologiniais ir lyginamaisiais metodais. Tyrimu siekta nustatyti, ar šiuolaikinėje anglų kalbos medicinos terminologijoje lotyniškų terminų vartojimas yra nuoseklus. Kiekybinė analizė atskleidė ir padėjo suklasifikuoti pagrindines lotyniškų terminų fonetinės ir ortografinės raidos proceso tendencijas: (1) originali klasikinės lotynų kalbos rašyba; (2) „supaprastinta" klasikinė lotynų kalbos rašyba; (3) abiejų minėtų tendencijų sinkretizmas (sinonimiškai vartojami ir originalios, ir „supaprastintos" lotynų kalbos variantai). Kai kuriais atvejais nustatytas ir „hiperkorekcijos" reiškinys. Iš visų analizuotų informacinių šaltinių akivaizdu, kad medicinos terminių vartojimas nėra nusistovėjęs, ir tai apsunkina jų leksikografinį aprašymą bei mokymo(si) procesą. Siūlomas sprendimas – sukurti ir įgyvendinti kai kuriuos bendruosius lotyniškų terminų fonetinės ir ortografinės adaptacijos anglų kalba kriterijus. Galimi problemos sprendimo būdai – (1) laikytis etimologinio principo, grąžinti medicininės terminijos *ad fontes* ir vartoti originalias formas arba (2) vartoti monoftongizuotas ir fonetiškai bei grafiškai supaprastintas formas, sudarytas laikantis šiuolaikinės anglų kalbos taisyklių. Norint, kad medicinos studentai įgytų tinkamą kompetenciją ir teisingai vartotų profesinę terminiją, būtina nuosekliai laikytis vienos lotyniškų terminų vartojimo taisyklių sistemos.

Pagrindinės sąvokos: klinikinė terminologija; lotynų kalba; fonetinė ir ortografinė lotynizmų raida; terminologinė kompetencija.

Олеся Лазер-Паньків
Кандидат філологічних наук, доцент, доцент кафедри загального мовознавства, класичної філології та неоелліністики Київського національного університету імені Тараса Шевченка
olazerpankiv@gmail.com

Юлія Письменна
Кандидат філологічних наук, доцент, доцент кафедри загального мовознавства, класичної філології та неоелліністики Київського національного університету імені Тараса Шевченка
pysmennaju@gmail.com

ОСОБЛИВОСТІ ФОНЕТИКО-ОРФОГРАФІЧНОЇ АДАПТАЦІЇ ЛАТИНСЬКИХ ТЕРМІНІВ У АНГЛІЙСЬКІЙ КЛІНІЧНІЙ ТЕРМІНОЛОГІЇ: ДО ПИТАННЯ ФОРМУВАННЯ ЛАТИНСЬКОМОВНОЇ ТЕРМІНОЛОГІЧНОЇ КОМПЕТЕНТНОСТІ ІНОЗЕМНИХ СТУДЕНТІВ-МЕДИКІВ

Анотація. У статті розглядаються особливості фонетичної та орфографічної адаптації латинських термінів у англійській клінічній термінології в контексті формування латинськомовної термінологічної компетентності іноземних студентів-медиків з англійською мовою навчання. На основі етимологічного та порівняльного підходів було проаналізовано близько 8000 найпоширеніших клінічних термінів, вибраних з лексикографічних англомовних джерел, з метою продемонструвати ступінь невідповідності у відображенні латинських термінів у сучасній англійській медичній термінології. Кількісний аналіз дозволив визначити та класифікувати основні тенденції у процесі фонетичного та орфографічного освоєння латинських термінів: (1) дотримання класичного латинського правопису; (2) «спрощення» латинської орфографії; (3) синкретизм першої та другої тенденцій (паралельне використання класичного латинського написання та «спрощених» варіантів як синонімів). Аналіз також виявив у деяких випадках явище «гіперкоректності». Відсутність єдиної норми відображається у всіх аналізованих довідкових джерелах, що ускладнює лексикографічний опис медичних термінів, а також процес навчання / вивчення медичної термінології. Запропоноване рішення полягає у розробці та впровадженні єдиних критеріїв фонетичної та орфографічної адаптації латинських термінів англійською мовою. Можливі шляхи вирішення проблеми – це або дотримання етимологічного принципу і звернення ad fontes медичної термінології з використанням лише немонофтонгізованих та неспрощених форм, або вживання виключно монофтонгізованих та фонетично і графічно спрощених форм згідно з нормами сучасної англійської мови. Послідовне дотримання уніфікованої системи правил освоєння латинських термінів є необхідною передумовою належного формування термінологічної компетентності студентів-медиків та правильного використання термінології у їхній подальшій професійній діяльності.

Ключові слова: клінічна термінологія; латинська мова; фонетико-орфографічне освоєння латинізмів; термінологічна компетентність.