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#### CARDIOLOGICAL TERMINOLOGY AND INTERNATIONALITY

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**Аннотация**: Данная статья посвящена созданию кардиологического словаря на основе кардиологических терминов и классификации кардиологической терминологии на основе результатов ее теоретического и практического анализа.

**Ключевые слова**: морфологическая система, кардиологическая лексика, кардиологическая терминология, национальный язык, интернационализм, исторические названия, терминологические единицы, этимологический анализ, транслитерация, транскрипция и кальцификация.

**Abstract**: This article is devoted to the creation of a cardiological dictionary based on cardiological terms and the classification of cardiological terminology based on the results of its theoretical and practical analysis.

**Key words**: morphological system, cardiological vocabulary, cardiological terminology, national language, internationalism, historical names, terminological units, etymological analysis, transliteration, transcription and calcification.

Introduction. Based on the results of theoretical and practical analysis of the cardiological dictionary, we have compiled our own classification of modern cardiological terminology based on linguistic origin:

- 1) word-borrowing classicisms, adapted to different degrees of adaptation to the sound and morphological system of the national language; most of the word-borrowing classicisms actually perform the function of internationalisms, that is, terms from different language groups that have received interlingual distribution in at least three languages (for example, Latin, Italian, French, English, German, Russian, etc.);
- 2) words borrowed from European and Eastern languages, some of which actually perform the function of internationalisms;
- 3) historical names (the source in English cardiological terminology is Old English, in Russian cardiological terminology Old Slavonic, in German Old High German, etc.).

It should be noted that there are direct and indirect borrowings. In the first case, words pass directly from one language to another, while in the second case, words from one language pass through another language to a third.

Cardiology, including since the dawn of medical knowledge, occurred at different times in different countries (ancient Greece, Rome, Italy, Spain, France, Germany, the Czech Republic, the Netherlands, Japan, etc.), then part of European medical terminology is characterized by the same linguistic sources of word borrowing. However, as we have already mentioned, the acquired vocabulary is the result of language contacts, cultural influences, social, economic and political ties. Based on this, it can be assumed that the degree of influence of the abovementioned sources for English and Russian will be different. Etymological analysis of cardiological terms in English has shown that the majority of acquired cardiological terms are Greco-Latin word units or Latinisms. Moreover, this group includes not only whole terms, but



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also elements of Greco-Latin origin, from which new lexical units, neo-Latinisms, were subsequently formed.

The words of the Latin vocabulary are mainly associated with three events in the history of the English people: the Roman Empire (from the 1st to the 5th century AD), the adoption of Christianity in England (6th-7th centuries) and the development of science and culture during the Renaissance (15th-16th centuries). This information can be illustrated by the example of the "core" of cardiological terminology, its main terms: atrium (XVI, from Latin "trium") adreserdie, chamber (XIII, from Latin "camera") kamera, muscle (XVI, from Latin "musculus") misssa, stenosis (XIX, from Greek "stenosis") stenoza, valve (late XIV, from Latin "valva") klapan, ventricle (late XIV, from Latin "ventriculus") zheludochek, etc.

Thus, based on the etymological analysis of the English terminological units of our sample, it was found that Greek-Latin word borrowings in English cardiological terminology account for 90.8% of the total number of terms studied (according to our classification - classicisms).

The second group consists of borrowings from European and Eastern languages. Among these sources of borrowings, French occupies a central place. According to our data, their number does not exceed 5%; some of these terms are represented by direct borrowings, and the other by indirect borrowings. Thus, the following terms were transferred from French to English:

Indirectly through French, terms of Greek-Latin origin entered the English cardiological terminology:

accident (XIV, "an occurrence, incident, event," from O.Fr. accident (XII), from L. accidentem) travma, active (XIV, from O.Fr. actif (XII), from L. activus) aktivniy, adherent (XIV c., from M.Fr. adhérent, from L. adhaerentem) srashenniy, a takje anemic anemichniy, arch svod, arrest ostanovka, branch vetv, dysfunction dis-funksiya, effusion vipot, function funksiya, interval interval, mitral mitralniy i td.

There are very few borrowings from other existing languages, and almost all word units are personal nouns, therefore they should be considered within a phrase, since outside it they lose the status of a term.

We noted four loanwords from German (enzyme, Dressler's syndrome, Eisenmenger's syndrome, Friedreich's symptom), only three eponymous combinations from Russian into English cardiology terminology (Sirotkin's symptom, Kukoverov's symptom, Popov's symptom), two lexical units from Italian (balloon, risk), d' Acosta' syndrome from the Spanish eponym, Purkinje's fiber from the Czech eponym, Takayasu's syndrome from the Japanese eponym.

The above loanwords make up more than 1% of the total number of cardiology terms in our English sample, but they cannot be excluded from the scope of linguistic research, since they are, like any eponym, important nominative signs.

The third group consists of terms that have passed from Old English to Modern English (according to our classification - local names). Such borrowed words are few and amount to less than 3%:

- blood (from O.E. blod) krov kōn, bundle (from O.E. byndele) puchok toplam, clot (from O.E. clott) sgustok laxta, heart serdse yurak, layer sloy qatl, lead otvedenie

In the framework of our study, analyzing the linguistic component of cardiological terminology, we identify 4 principles of word borrowing: 1) the principle of transliteration, by which we mean not only the transfer of a foreign word using the letters of the native language, but also such a method when borrowing is transferred from one letter system to another. As a result, we divide the principles of transliteration into:



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Transliteration (transfer of the letter composition of a borrowed word through the alphabet of the borrowing language, based on the same letter system in the source language) {engl. surgery frans. surgerie)); respelling (respelling (transfer of the letter composition of a borrowed word through the alphabet of the borrowing language, based on another letter system in the source language, for example, from Latin to Cyrillic (russk. isoritm <— fr. isorythme)).

The principle of transcription is that the sound form of the borrowed word is preserved in the receiving language.

The principle of considering the associative meaning and structural model of a word or phrase as acquired. In the calculation, the components of the borrowed word or phrase are translated separately and combined according to the pattern of the foreign word or phrase. As a result of the classification, observation sheets are created, for example: English: immobility Latin: akinesia.

The principle of quotation (citata), which is often used when the necessary graphic means for conveying the letter or sound structure of the borrowed word in the receiving language are not available. As a rule, when it is impossible to apply the principles of transliteration and transcription, the principle of quotation is resorted to (English: d' Acosta Spanish: d'Acosta).

The study of factual material showed that transliteration is the leading method of replenishing cardiological terminology in English. Almost 100% of the total number of terms studied in our study (1150 out of 1137) were borrowed words in English with its help.

Borrowed words, having entered another language, undergo a number of phonetic, graphic and grammatical changes. Some languages (French, German, Czech, Italian) use diacritical marks in their alphabet, which, when borrowed, are usually not transferred to the receiving language, for example, English procédure French procédure. The spelling of some endings in orthography also changes, which in turn leads to phonetic changes, for example, English therapy lat. therapia, English hypertrophy lat. hypertrophia, English surgery <— French surgerie, etc.

It is worth noting that in the medical literature in English there are spellings of these words that are terminological doublets in relation to each other. The ABBYY Lingvo 11 dictionary analyzed in our work records similar graphic doublets in its corpus, for example: hypertrophy, hypertrophia; artery, arteria, etc.

Words that are assimilated into the receiving language system, acquire suffixes and endings more characteristic of this language. The following examples can be given in English: congestive lat. congestus, mediate <— lat. mediatus, coronary lat. coronarius, concomitant lat. con¬comitants, venous \*— lat. venosus, obstruction lat. obstructio, failure <— frans. failer, etc. In some cases, when a foreign word is transferred to another language, the endings of the assimilated lexemes "disappear". According to our observations, this is typical for words of Greek-Latin origin, for example, in English medical terminology: adominal lat. abdominalis, mitral <— lat. mitralis, superficial <— lat. superficialis, Symptom lat. symptoma, etc. There may be grammatical changes.

We include personal names in a separate group of loanwords, since during their transition to English several principles were used at once: transcription + transliteration (personal names of French, German, Spanish and Czech, Russian, Japanese origin): Dressler German. Dressler, Eisenmenger <— German. Eisenmenger, Friedreich German. Friedreich, Purkinje Czech. Purkinje, Sirotkin <— Russian. Sirotkin, Kukoverov Russian. Ky- koverov, Popov Russian. Popov, Takayasu Japanese. According to our information, less than 1% of the words obtained by this method were found in the original material.



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The citation principle is a very rare method of borrowing foreign words (0.5%), most often in English cardiological terminology it is used to transfer letters of the Greek alphabet along with transliteration (interleukin-/D tumor-a, /?-blocker, ¡3-anrenergic-blocker) or to transfer proper names by transcription + transliteration (d' Acosta isp. d' Acosta).

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Another way to assimilate words borrowed from English is calcification, although this principle is rare in cardiological terminology (about 1%): rhythm disturbance Greek arrhythmia, blood spitting Greek hemoptosis, complete blindness <— Greek anaurosis, etc.

As in English, the majority of borrowings in Russian cardiological terminology are classicisms (87% of the total number of terms studied): aorta (Greek aorte), artery (XVIII, Latin arteria), atresia (XVII, Greek atresis), vein (XVII, Latin vena), capillary (XVII, Latin capillaris), etc. [Fasmer's etymological dictionary].



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In addition to Latinisms, Russian cardiological terminology also includes terms borrowed from European and Eastern languages. The greatest influence on the replenishment of the Russian cardiological vocabulary was exerted by borrowings from French and English

Medical terminology in the Russian language began to be actively replenished with foreign vocabulary in the 17th-19th centuries, when French scientists made remarkable discoveries in many clinical sciences. It is worth noting that almost all borrowings from this French language are indirect. The main source language is often Latin.

Borrowings from French in modern Russian cardiological terminology (less than 2%) can be classified as follows:

words translated from French into Russian:

kanyulya (19th century, fr. canule), conduit (19th century, fr. conduite), contour (19th century, fr. contour), perifericheskiy (19th century, fr. périphérie)',

Greek-Latin words that indirectly passed into Russian cardiological terminology through French:

isorhythm (19th century, fr. isorythme lat. isorhythmus grek. isorhythmos), interpolation (17th century, fr. interpolation lat. interpolationem), counter-pulsation (17th century, fr. contrepulsion lat. contrpulsationem), criterion (19th century, fr. critérium lat. critérium grek. kriterion), as well as metabolism, plastic, system, subclinical, tone, cycle, circulation (metabolism, plastic, system, subklinicheskiy, tone, cycle, circulating), etc.

Currently, terminologists note another increase in the process of borrowing and activation of foreign vocabulary, in particular, English, in modern Russian.

Many linguists, comparing the flow of French word acquisitions in the 18th century with the Russian language, consider borrowings from English (hereinafter - Anglicisms) to be the most striking feature of modern linguistic development. As the day goes on, English words are borrowed even when there are clear equivalents in the language [Velichko 2010:15].

Devices used during heart operations: marker (20th century, English marker), stent (19th century, English stent), inhibitor, defibrillator, shunt, prosthesis, implant, autotransplant, fibroplast, blocker, adrenoblocker, etc.;

Cardiovascular diseases: polyserositis (19th century, English polyserositis), microembolism, microalbuminuria, etc.;

Drugs: anticoagulant (20th century, English anticoagulant), interleukin (20th century, English interleukin), corticosteroid, thromboxane, etc.;

Most of the English terms, as can be seen from the examples given, were borrowed into the English language, in turn, from Latin and Greek. These words, as a rule, have an international character; despite some differences in the pronunciation of these words in different languages, they are understandable to medical specialists without translation.

In conclusion, it should be noted that in the Russian cardiological terminology, along with multi-component terms formed from foreign words by calcification, there are synonymous terms translated into Russian by transliteration. As a rule, this applies to multi-component terms consisting of three or more elements. In our opinion, the emergence of such synonymous variants in the Russian terminology fund is due to several reasons. First, the desire of the language for more precise terminology. Secondly, words obtained by respelling, as a rule, have an international character, which significantly facilitates the communication of specialists from different countries. A common feature of word acquisition in cardiological terminology in Russian and English is the Greek-Latin origin of these terms. The commonality of Greek-Latin internationalisms, the commonality of words and term elements in several European languages

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scientific concepts. The use of term elements of Latin origin in modern languages is explained by the fact that they are often direct instructions in determining the semantics of terms, since in medical terminology the meaning of each term element is clearly defined: the location of inflammatory processes, the type of pathological changes, the method of diagnosing the disease and the method of its treatment.

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#### List of used literature:

- 1. Anikienko A.A., Kamyshova L.I., Novodranova V.F., Persin L.S. Dictionary of orthodontic terms. Moscow: MMSI, 1993.
- 2. Arnaudov G.D. Medical terminology na pyati yazykax: Latinum. Russian. English. Français. Deutsch / per. s bolg V.V. Zavyalova. 4th Russian. izd., ispr. Sofia: Meditsina i fizkultura, 1979.
- 3. Avksenteva A.G. Latin language and basic medical terminology / 4. Series "Uchebniki, uchebnye posobiya". 3-e izd. Rostov-on-Don: Izd-vo "Phoenix", 2002
- 5.E.Yu. Gagarina // Slovo. Dictionary. Term. Lexicographer: sb. St. My material is Mejdunar. Nauch. practice conf. pamyati d-ra filol. Nauk, Prof.
- 6. German, Yu.P. Delo, kotoromu ty slujish / Yu.P. German. M.; L., 1987. –
- 7. Dvoretsky I.Kh. Latino-Russian dictionary. Moscow: Russky Yazyk, 1986.
- 8. Kochkareva A.G., Novodranova V.F., Ryzhkina Z.A. Tolkovyy latin-sko-russkiy slovar terapevticheskoy stomatologii. Moscow: GEOTAR-Media, 2006.
- 9. International anatomical terminology with grammatical Latin language / pod obshch. ed. G.V. Petrov. Moscow: Alma Media Grupp, 2019.
- 10. International histological nomenclature = Nomina histologi-ca / pod obshch. ed. i s predisl. Yu.N. Kopaeva. Moscow: Medicine, 1973.



ISSN: 2692-5206, Impact Factor: 12,23

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Journal: <a href="https://www.academicpublishers.org/journals/index.php/ijai">https://www.academicpublishers.org/journals/index.php/ijai</a>

- 11. Terminologia anatomica. International Anatomical Terminology / pod ed. L.L. Kolesnikova. Moscow: Medicine, 2003.
- 12. Trezubov V.N. Orthopedic dentistry. Otraslevoy terminologichesky slovar: uchebnoe posobie dlya meditsinskikh vuzov. St. Petersburg: Chelovek, 2019.
- 13. Actual problems of terminology National Information Agency of Uzbekistan-UzA branch of science (electronic magazine) 2021
- 14. Basic terminological concepts. National Information Agency of Uzbekistan-UzA science department (electronic journal) February 2022
- 15. The problem of synonymy in modern medical terminology National Information Agency of Uzbekistan-OzA science department (electronic journal) May 2022. Tashkent -2022-169-177 pages
- 16. Methodology of Teaching Medical Terms and using Tasks that Develop Qualification SkillsGlobal Scientific Review Volume 10 December 2022 211-213 p
- 17. Effects of Word Acquistion on Completion of Cardiology Terminology Central Asian Journal of Literature, Philosophy and Culture –Volume 04 Issue 02 Feb 2023 62- 64
- 18.A Method of Classification of waters Adapted from English to Cardiological Terminology Pindus Journal of Culture, Literature and ELT Volume-3 No.2 Feb.2023 40-42 p
- 19. Encyclopedic Dictionary for Diagnostic Radiology (English Russian). Moscow: Russian Academy of Sciences, 2017.
- 20. Entsiklopedicheskiy slovar meditsinskikh terminov / pod ed. B.V. Petrovsky. Moscow: Soviet Encyclopedia, 1982-1984. T. I: A-Y. 1982.
- 21. Ahrens G. Medizinisches und naturwissenschaftliches Latin. Leipzig: VEB, 1988. 355 p.
- 22. Bloch O., von Wartburg W. Dictionnaire étymologique de la langue fran-çaise. Paris: PUF, 1994.
- 23. Clinical terminology (na osnove greko-latinskikh terminologicheskikh elementov): uchebno-metodicheskoe posobie dlya studentsov lechebnogo, pediatricheskogo, mediko-psychologicheskogo i mediko-diagnosticheskogo fakultetov / D.K. Kondratev, O.S.Zaborovskaya. Grodno: GrGMU, 2008.
- 24. Medical terminology na pyati yazykax / Sost. G.D.Arnaudov. Sofia: Meditsina i fizkultura, 1979.
- 25. How many M.N. Latinskiy yazyk dlya lechebnyx fakultetov / M.N.How much. Rostovon-Don: Phoenix, 2007.
- 26. Tsysyk A.Z. Latin language: ucheb. for students uchrejdeniy, obeschivayushchih poluchenie vyshsh. Med. education / A.Z. Tsisyk. Mn.: TetraSistems, 2006.

#### Websites:



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- 2. http://dictionary. yandex.ru
- 3. www.gramota.ru.
- 4. www. krugosvet.ru (documents, reports)
- 5. www.google.ru (search system).
- 6. http://magazines.russ.ru/noviy.mir/ (journal).