

Method of Structural Semantic Analysis of Dental Terms in the Instructions for Medical Preparations

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Abstract. The purpose of the article is to analyze and distinguish essential characteristics of medical terms; to analyze terms in the dental terminology of Ukraine and the USA, to determine the word structure of such terminological entities, to find out the peculiarities of their functioning; to determine the word structure of such terminological formations, to find out the peculiarities of their functioning; to determine the place of terms in the pharmaceutical term system, to study their structure and origin; systematize the theoretical material of dental terms in the texts of instructions for medical preparations; to find out the general ways of translating the dental vocabulary of the Ukrainian-language and English-speaking medicines; to analyze the basic tendencies of terms formation in Ukrainian and English-language instructions of medical preparations; to identify productive ways of translating the semantic and structural features of dental terms in the texts of Ukrainian-language and English-language instructions for medical products. The text of the instructions for medical preparations (120 in total, 60 in each of the studied languages) served as the material of the study. The texts have been formulated according to the instructions to different pharmacological groups, namely according to the International Anatomical Therapeutic Chemical Classification System. The instructions for medical products were approved during 2000-2018, selected from the Internet resources of the Ministry of Health of Ukraine, WebMD - Better information. Better health.

Keywords. Semantic Analysis, Dental Terms, Medical Preparations, Instructions, Content Analysis, Preparations Instructions

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1 Introduction

Modern medicine as one of the most developed branches of Ukrainian science is used in a properly organized national language, the basis of which is a special vocabulary [62-67]. Ukrainian medical-clinical terminology is not only one of the largest sections of general medical terminology, which unites blocks of terms of different medical specialties, but also the least normalized group of terminological vocabulary of medical sciences, the disorder of which is primarily related to the presence of such phenomena as polysemy, synonymy, variant. The main factor that caused the heterogeneity of the composition of Ukrainian medical terminology, the complexity of its conceptual system, is the centuries-old history of development of medicine, the diversity of sources of replenishment of its vocabulary [32, p.80-83].

Generally, the terminology means the totality of terms in a given field of knowledge, production, activity, and the like. Because the terms of a particular industry reflect concepts that are interconnected and represent a particular system, there is also a link between the terms that express them, which connects them to the system. That is, terminology should be understood not simply as a totality, but as a system of terms that integrates the concepts with which it operates. The term is always endowed with the quality of denoting a scientific concept that combines with other concepts of the relevant field of science a single semantic system. The term is usually characterized by unambiguity, accuracy, brevity, and its independence of meaning from the context.

The medical macroterminal system in its composition has a considerable number of layers, each of which is a subterminal system serving a particular medical, biological or pharmaceutical science. Each term is an element of a certain subterminal system (anatomical, histological, surgical, therapeutic, etc.). Each subterminal system reflects a certain scientific classification of the concepts adopted in this science, but at the same time, terms from different subsystems, interacting with each other, are in a definite sense relations and relationships at the level of the macroterminal system. This reflects a twofold trend of progress: the further differentiation of the medical sciences on the one hand, and their interdependence and integration on the other. The importance of research in the field of dental clinical terminology has been pointed out by both linguists and physicians. It is due to the fact that it is the oldest terminology, by which we can trace the ways of formation, development and improvement of terms, the realization of semantic processes, certain tendencies, ways and means of word formation, as well as the functioning of these tools in the field of medicine .

However, there is still no complex work in Ukrainian studies in which a comprehensive study of the medical-clinical terminology of dentistry on the basis of systematic-semasiological, onomasiological and functional-communicative analysis, which would be possible to accomplish the task of a semiological description of dental vocabulary. Nowadays, according to the analysis of modern sources on dental terminology, the medical-clinical dental terminology is insufficiently studied, its vocabulary is disordered, due to the lack of a complete dictionary of dental clinical terms in the Ukrainian language, as well as the lack of a complete list of definitions of dental clinical terms. in the available medical interpretative dictionaries. When semantizing new

unknown terms in dentistry vocabulary, the term is derived based on its internal structure or context. Knowledge of the meaning of term elements contributes to the semanticization of the term as a whole. The presence of a certain conceptual base and a broad outlook also stimulate the process of deriving the meaning of the terms.

We have an urgent need to translate medical instructions as the number of imported medicines in Ukraine has grown rapidly in recent years. Because of this, the study of terms, terms and instructions for medical products, from the semantic and structural aspects, will allow to identify exceptional peculiarities and differences of Ukrainian and English terminologies. The interpretation and translation of terms in the field of dentistry is based on the ability to perceive the term as a whole, taking into account the meaning of all its term elements. To choose an equivalent translation of the term, you need to have a dental terminology of the mother tongue and be well versed in the field of medicine in question. Medicines sold in pharmacies have accompanying leaflets - instructions for proper use. In linguistics, instruction is defined as text, which is a kind of discourse, and therefore has its main characteristics. The instruction includes certain macrostructures that determine its thematic content.

However, the texts of the instructions, describing the various preparations, reveal the common features of the structural organization. There is a clear structural division of the text corpus into separate sections. The distinction is made by the system of headings and subheadings. The system of headings and subheadings forms a structural skeleton of the text, and the blocks within the frame have a certain semantic content and pragmatic orientation [43, c.83]. Creating a complete medical dictionary of dental terms will help you to solve the following tasks:

- to consider the linguistic status of dental medical-clinical terms, to find out their sign specificity;
- to analyze the ways of forming the system of dental clinical terminology, to determine the sources of its replenishment;
- to investigate ways of term formation, to point out the basic word-forming models, to determine the status and semantic characteristics of formants – constituents of the term;
- to identify lexical-semantic features of the terminology under study; analyze the reasons that led to the synonymization of names in the sub-field of the industry;
- to identify ways of normalizing dental medical-clinical terminology at the present stage.

The **topicality** of the work is due to the fact that at the moment we have a need to study the structural and semantic features of dental terms in the instructions for medical preparations and processing the means of translation of these instructions. Because of this, the study of terms to medical products, from the side of translation and semantic aspects, will reveal the unique peculiarities and differences of Ukrainian and English terminologies. The terminology of dentistry is one of the most complex in the language of medicine. The urgent internationalization of medical communication and the formation of a large number of new terms encourage linguists to study in depth the medical dental terminology. These provisions determine the relevance of research, which we continue the cycle of our own articles on the functioning of the scientific

style in the language of dentistry. While reading foreign language literature, many experts have difficulty semanticizing an unknown vocabulary. When semanticizing new unknown terms in dentistry vocabulary, the term is derived based on its internal structure or context. Knowledge of the meaning of term elements contributes to the semanticization of the term as a whole. The presence of a certain conceptual framework and a broad outlook also stimulate the process of deriving meaning of terms.

The above factors confirm the topicality of the problem of terminology and the need for its research today. Increased requirements for terms as key units of scientific communication and exchange of information determine the need for the collaboration of linguists and professionals from different disciplines.

The **research object** of the study is the terms in the Ukrainian and English instructions for dental preparations.

The **research subject** of the study is the structural-semantic features of the terms.

The **aim of the research** is to analyze the Ukrainian and English terms in the instructions for dental products in translation. The stated purpose is to solve the following tasks: to describe and systematize the evolution of medical terminology in Ukraine and the USA; to consider the structure of instructions for medical preparations; describe the methodology for analyzing terms that are specific to the texts of instructions for medical products; to establish structural-semantic features of speech realization of terms of instructions to medical preparations.

Issues of modern terminology are considered in the works of native linguists both within the framework of general lexicology and within its semantic, grammatical and derivative aspects, in the development of the theory of the term as a whole.

In recent years, a great deal of attention has been devoted to the study of medical terminology (by Kosenko A.V., Litvinenko N.P., Leshchenko T.O., Perhach R.-Y. T.), features of multicomponent terms, both by world and Ukrainian linguists. (Drozdova T.V.), functional-stylistic parameters (Sizonov D.Y.), structural-semantic features of the instructions (Stanivchuk V.). The study material is based on the texts of the instructions for medical preparations (a total of 120 instructions, 60 in each of the languages studied). The texts are formed according to the International Anatomical Therapeutic Chemical Classification System. The instructions for medical products were approved during 2000-2018, selected from the Internet resources of the Ministry of Health of Ukraine, WebMD - Better information. Better health.

The following **methods** were used to study the study material: descriptive method - to create a comprehensive list of analyzed material; contextual analysis - to analyze the modeling of concepts relevant to the texts under study; comparative method - to identify common and distinctive features of the terms of the studied languages; quantitative analysis - to determine the frequency of use of terms.

The **theoretical value** of the study is manifested in the establishment of semantic-structural features of the terms used in the instructions for medical preparations. The results of the study will lead to the consolidation and normalization of dental terminology. The **practical value** of the study is that its results can be used in the study of the following courses: general linguistics, comparative linguistics, translation practice, applied and cognitive linguistics, special courses in terminology, translation studies, cognitive intercultural studies, cognitive semantics.

The purpose of the study was to perform the following tasks:

- to distinguish essential characteristics of terms of medicine;
- to analyze dental terms in medical terminology of Ukraine and the USA, to determine the word structure of such terminological formations, to find out peculiarities of their functioning;
- to define the word structure of such terminological formations, to find out the peculiarities of their functioning;
- to find out the place of terms in the dental term system, to study their structure and origin;
- to systematize the theoretical material of dental terms in the texts of instructions for medical preparations;
- to find out the general ways of translating the medical vocabulary of Ukrainian and English-speaking medicines;
- to analyze the main trends of terms formation in Ukrainian and English-speaking medicines;
- to define productive ways of translating lexical, semantic and structural features of dental terms in the texts of Ukrainian-speaking and English-speaking instructions for medical products;
- develop a program using the programming language.

2 General Characteristics of Medical Terminology

2.1 Definition of the Terms "Term" and "Medical Terminology"

The term is a brief expression of a scientific concept. The main features of the term are called systematic, the tendency to unambiguous within the terminological field, lack of expression, the presence of precise definition, stylistic neutrality [24, p.145].

The main requirements for the term are: 1) a systematic approach to the correspondence between content and form; 2) the presence of a definition; 3) brevity and conformity of the concept; 4) conventionality; 5) stylistic neutrality; 6) attraction of a certain branch of the system; 7) compliance with language standards; 8) derivative capacity; 9) invariance; 10) information content [2, p.259].

During the translation of medical terminology from English into Ukrainian, it is necessary to comply with the requirements in order to ensure an adequate and equivalent translation of the medical term. For a number of compelling reasons, it is not possible to fully comply with the deadlines. The problem of the polysemy of terms is the cause of difficulties in the implementation of these requirements. The scientist I. Borisyuk considers that for any term-system the state is perfect when a single term corresponds to a single term, because it is the regulated correlation of the name and the reality that makes it possible to avoid possible differences [19, p. 170].

Medical terminology is a macrosystem. The content of medical terminology is quite diverse: human diseases and pathologies, pathogens and vectors of diseases, methods of diagnostics, prevention and therapeutic treatment of diseases, syndromes and symptoms, surgeries, devices, instruments, medical equipment and equipment,

medicines, etc. [4]. Medical terminology is an urgent problem of today, not only for scientists but also for translating instructions into medicines. There is a huge amount of work devoted to the study of terminology and terms in linguistics.

Contemporary scientific literature investigates such problems as determining the ways and means of terminating pharmaceutical terminology (Chernih V., Pertsev), establishing the specifics of functioning of foreign-language medical terms in Ukrainian discourse (Hnatyshina I., Svitlichna I.), the structure of the pharmaceutical term (Petrukh L, Vrublevskaia M., Mikhalik O.), vocabulary structure of pharmaceutical terminology (Chernykh V., Pertsev I., Petrukh L.), history of names of Ukrainian medical vocabulary (Didyk-Meush G.), formation and functioning of biological terminology (Simon NCB AL). In general, the word "terminology" began to exist in the late nineteenth and early twentieth centuries [24, p. 146].

The concept of "terminology", scientists give different definitions, so this leads to difficulties in the definition and understanding of the concepts of "term", "terminology", "terminosystem" [8, p.58]. The scientific community identifies three basic concepts for defining the term "terminology": 1) terminology is an integral part of the vocabulary of literary language; 2) terminology is an autonomous section of the national language vocabulary that has little in common with the literary language; 3) terminology is not a language but a system of artificially created signs [16, p. 114].

In terms of concepts, it can be concluded that medical terminology as a set of names and concepts was formed together with medicine, before the emergence of terminology as a science. It can be traced that the ancient Ukrainian medical terminology began in the times of Kievan Rus. Linguist L.Symonenko claims that the development of Ukrainian medical terminology had both ups and downs, which were explained by socio-political reasons. Delayed the formation of term formation, long-term ban on the Ukrainian language. The non-state status of the Ukrainian language and its territorial division have slowed the development of Ukrainian terminology. According to the classification of the formation of Ukrainian medical terminology, Lyudmila Symonenko identifies 5 main stages [24, p.23]. The first stage is called pre-scientific or cumulative, there are special words recorded in different legal documents. The first sources of medical vocabulary were books of folk medicine, for example "Doctors", "Herbs", they covered the names of plants, parts and organs of the human body. There were also medical memorials, which included anatomical terms, some of which were in Lexicon of the Slavonic by Pamba Berinda (1627). Each collection consisted of treatment guidelines, collection of medical advice, and prescriptions. These collections contain terms that emerged from the vernacular, such as scabies, lichen, and more. The main part of medicine of that time was descriptive forms for designation of medical names with explanations of the authors. The common occurrence was the introduction of monosyllabic correspondences in a foreign language (Latin or Greek). The creation of medical names consisted of the combination of phrases, with the name of the diseased organ and the name of the disease, for example: gum disease (periodontitis) or dental pain (pulpitis).

The formation of scientific Ukrainian terminology was due to the influence of foreign cultures, so actively translated and original works in Latin and Ancient Greek. These works contained rich linguistic material for the study of Ukrainian medical

terminology. The second stage of development of medical terminology intertwined with the needs of cultural and scientific development of the Ukrainian language, the formation of scientific societies that made up the development of Ukrainian science. Due to the efforts of the Medical Society in Galicia and the Taras Shevchenko Scientific Society, the Kiev Scientific Society and the Prosvita, a national term system was formed. Thanks to the linguistic studies of I. Verkhratsky, I. Gavrishkevich, E. Ozarkievich contributed to the development of Ukrainian terminology. During the second half of the nineteenth century, this process began and lasted until the beginning of the twentieth century. compilation of the nomenclature and terminology of nature »by I. Verkhratsky. The third stage took place during the 1920s-1930s, and dictionaries and works of authors such as I. Tseskivsky and E. Lukashevich appeared. At this stage, Doctor of Medical Sciences Martyria Galina showed himself. The terminological concept of this scientist consisted of lexicographic medical works of the 20's. The dictionary articles were accompanied by synonymous rows of terms, Ukrainian words prevailed. The Institute of Ukrainian Language was created at the Ukrainian Academy of Sciences. It was the institute that systematized Ukrainian scientific terminology and developed national science. The terms were created through a rethinking of common terms, because scientists followed the path of terminology based on Ukrainian vocabulary. It is at this time that Ukrainian names are formed, such as: gallbladder (adenitis) and gastric (gastritis). The period of the 30's was characterized by the publication of articles against Ukrainian scientists. There was a list of terms that was nationalist and subject to terminology.

The fourth stage lasted from the 50s to the 80s of the XX century. During this period, terminological studies were renewed and a Ukrainian terminological vocabulary was formed, through which the Presidium of the Academy of Sciences of the Dictionary Commission was formed. Scientific studies in various fields of terminological systems began to emerge. Many linguistic dictionaries, directories, and encyclopedias have been published through the research of linguists. The fifth stage arose from the 90's of the XX century. which is still ongoing. Thanks to the independence of Ukraine, the proclamation of the Ukrainian language into the official state language helped to restore Ukrainian terminology. The terminological base of the Ukrainian language is rapidly changing, and there are attempts to introduce new terms or old ones in scientific fields that were created in the late 19th and early 20th centuries. Despite this, more than 80 vocabularies in various medical disciplines have been published, a series of legal documents have been approved to define pharmaceutical terms and describe their use. In particular, they have developed and approved the terminology dictionary as the only document for the member countries of the CMEA in the field of medical science, technology and health care (order of the Ministry of Health of the USSR of 69.07.1980, No. 692), the Law of Ukraine "On Medicines" (from 04.04.1996 № 123/96 BP). The main bibliographic works include the Pharmaceutical Encyclopedia, edited by Art. NAS of Ukraine, Professor V.P. Chernykh, "Orthographic Graphic Dictionary of Ukrainian Medical Terms" (OSUMT) for 29000 terms, "Ukrainian-Latin-English Medical Interpretive Dictionary" (ULAMTS) for 33000 terms, edited by Professor L.I. Petrukh, Associate Professor IM Golovko.

2.2 Difficulties in Using Dental Terms

Research on the normalization of dental terminology is based on the fact that the study of scientific terminology is characterized by a close combination of theoretical and methodological aspects. The standardization and proper application of the term stomatology dentistry system depends mainly on the solution of many problems such as violations of lexical, stylistic, spelling rules; inaccurate lexical notation of scientific concepts; the use of words not peculiar to the Ukrainian language, including its scientific style; the presence of terminological polysemy [12, p.17-18].

To solve these problems, which undoubtedly relate to theoretical and practical therapeutic dentistry, let us dwell on the characterization of the main lexical and grammatical difficulties of using the appropriate terms [10, p.68].

The basic terminological structure for dentistry is the term system of names of anatomical formations of maxillofacial area [15, p.114]. Characteristics of difficulties of using medical vocabulary for marking of the maxillofacial area were distributed according to the respective groups according to the anatomical purpose and topography: кістки (bones), м'язи (muscles), нерви (nerves), порожнина рота (oral cavity), ясна (gums), кровоносні судини (blood vessels), залози (glands) [9, p.21].

There are difficulties of term use in the names of the bones of the maxillofacial area: lacrimal bone (слізна кістка incorrectly "сльозна"); palate (піднебінна кістка); zygomatic bone (влична кістка not the "влицева") [17, p.11]. Often dentists use the term "alveolar sprout", and there must be a "sprout" because the sprout is a "young plant stem" [18, p.37], and the sprout is "three anatomical branches of some organ in the body. Worm-shaped appendix of the caecum; processes of the cervical vertebrae" [14, p.101]. Recall that in English, the term "periosteum" is translated as "periosteum": alveoli periosteum (окістя альвеоли); ocular fossa (окістя очної ямки); tooth ossification (окістя зуба). Hence the adjective oxidative (окісний), for example in implantology: "cut the mucous membrane of the periosteum along the crest of the alveolar process and peel off the mucous-oxide flaps" [7, p.60].

With respect to the characteristics of the mandibular bones, there are also a number of problematic issues and difficulties in vocabulary related primarily to bilingualism in the local linguistic environment [13]. Yes, from the russian *подъязыковая ямка* should be translated as ukrainian. *під'язикова ямка* - english sublingual fossa, not sublingual, as well as ukr *під'язикова кістка*. However, in the most famous translated dictionary of medical vocabulary by ОК Usatenko there is a discrepancy of the following character: the russian term sublingual-language is translated as ukrainian as *під'язиково-язиковий*, and the next word from Russian *подъязычный* is ukrainian. *під'язиковий* and *під'язичний* [46, p. 24]. The English term Inter-alveolar septum should be translated as ukr. *міжальвеолярні перегородки*, not septa, because the last term refers to the skin formation between the bones on the legs of birds. Eng. The Jaw branch translates as a *гілка нижньої щелепи*, although one can find the irregular branch *вітка* - tracing paper in russian [29, p.108]. A common occurrence in the Ukrainian oral language of dentists is the erroneous accent of Ukrainian. noun jaw. Properly emphasize on the first syllable, just like ukr. noun saliva [28, p.312].

In order to characterize the muscles of the thyroid gland, we use terms that also have some spelling, word-making and stylistic difficulties. For example, English buccal muscle the *щічний м'яз* according to the alternation of the vowels o, e with and, in open and closed composition [20, p.197]. The following describes the difficulties of term use on the nerve of the thyroid: oculomotor nerve (*окооруховий нерв*); facial (*лицевий* – front); olfactory (*нюховий*); infraorbital (*підочноямковий*); glossopharyngeal (*язикоглотковий*) [31, p.72]. There are correct forms of separate names for teeth and dental surfaces: *articulating* (*артикулюючі*), *juvenile* (*жувальні*), *wisdom teeth* (*зуби мудрості*), *cut* (*кутні*), *convergent* (*конвергуючі*), *competitive* (*різцеподібні*), *shiriv* (*шипуваті*), *juvenile tooth surface* (*жувальна поверхня зуба*), *incisal margin* (*різальний край*) [25, с.23].

Separately, the translation of the English term can be distinguished. abutment teeth in English. That's right - Ukr. *опорні зуби*, not the supporting teeth, because the noun resistance has the lexical meaning "that which is supported or supported" [21, p.262], whereas the noun resistance from which the adjective is derived means "2. the ability to resist, to counter." It is worth remembering that the noun tooth in the plural noun has the ending -y: *два зуби* [35, p.218]. The noun canine in the nominative plural has the form of canines [39, p.291], but often use the wrong form of canines.

It is worth noting that the noun gum is used in the Ukrainian language only in the plural form, so, for example, the sentence "On the gum of the upper jaw, the vessels are narrowed" is translated: "On the gums of the upper jaw narrowed vessels". The adjective from the gum is clear, but in the educational and scientific literature and the speech of dentists we find often irregular forms [1, p.51].

It should be noted that the use of the terms periodontium - Ukr. *пародонт* (tissue surrounding the root of the tooth) and periodont - Ukr. *періодонт* (ligaments on which the tooth is held), which in the genitive singular have the termination – *пародонта*, *періодонта*, as well as most nouns for the designation of anatomical form of the thyroid gland: *лоба* (forehead), *носа* (nose), *рота* (mouth), *язика* (tongue), *відростка* (genital), *скелета* (skeleton), *череп* (skull), but the names of the diseases - *пародонтиту* (periodontitis) [13].

The periodontal noun has the prefix peri-. This variant of spelling is used because there is a rule according to which the prefix of the Russian language in the Ukrainian language is used with the letter and before the consonants, for example. *перібронхіт* (peribronchitis), *перикард* (pericardium), *перипроктит* (periproctitis) and with the letter and - in front of the vowels say as *періодонт* (periodontitis), *періапікальний* (periapical), *періаденіт* (periadenitis), *періартрит* (periartthritis), *періімплантит* (peri-implantitis), *періостит* (periostitis) [13]. Problems arise in the use of the term English tonsils. In general, it is translated as tonsil, but the correct translation of the name of this formation as a part of the paired organ of the lymphatic system - almond: *глотковий мигдалик* (*pharyngeal tonsils*), *піднебінний мигдалик* (*palatine tonsils*), *язиковий мигдалик* (*lingual tonsils*) [34, с.463].

The prefix is applied to the designation of the salivary gland: parotid salivary gland, but if you look in the dictionary of O.K Usatenko you can see that there is ridiculousness. For example, the Russian term parotid-chewing is translated into

Ukrainian *навколоушино-жувальний*, and the next word grew rus. *околоушный* - like ukr. *привушний* [37, p.80-84].

It is necessary to highlight one of the key in dentistry anatomical terms - the English vestibule of the mouth. Researchers-philologists have put forward another option, instead of common in the anatomy of ukr. *присінок рота* to the norms of Ukrainian word-formation, the mouth should be used in ukr. *переддвер'я рота* [36, p. 30]. First, this name fully reflects the features of the anatomical details of this formation: that in front of the "door" - closed dental rows; secondly, it does not violate the norms of Ukrainian spelling; thirdly, it is more understandable to contemporaries than archaism of the "porch" - an attribute, an outdated architectural detail of the Ukrainian hut.

2.3 The Spelling Aspect of Dental Terms

One of the most acute problems with the spelling aspect of highly specialized terms in therapeutic dentistry is the use of apostrophe. According to the rules of Ukrainian spelling [33, p.102] with an apostrophe we write the following words and their grammatical forms, which are used in the vocabulary of therapeutic dentistry: *в'ялий* (sluggish, course of ulcerative-necrotic gingivitis), *з'єднання* (compound, enamel-dentin), *кальційзв'язувальний* (calcium-binding, protein), *кератокон'юнктивіт* (keratoconjunctivitis), *комп'ютерна* (computer, tomography), *кров'яний* (blood, clot), *миш'яковиста* (arsenic: acid; toxic periodontitis), *м'який* (soft: plaque; canal content), supernatural, acacia (tartar); *м'якоеластичний* (soft elastic: lymph node consistency); *об'єктивне* (objective, survey); *під'язикова* (sublingual, iron); *пов'язка* (bandage, sealed); *п'єзоелектричний* (piezoelectric), *п'єзоскейлер* (piezo scaler); *розм'якшений* (softened, dentin).

Without an apostrophe we write: *bugel*, *curettage*, *fluorescent* (diagnosis).

Double consonants occur in such words as: *гаммаглобулі* (gammaglobulin); *голка Міллера* (Miller needle); *іннервація* (innervation), *ірадіація* (irradiation), *ірегулярний* (irregular coincidence of the consonant prefix and root; the life of the microflora (the consonants d, t, c, s, l, n, w, w, c, h are lengthened, and the letter is indicated by two letters) when they are after the vowel before I, you, and, are in all the nouns the middle kind of the second term, except the generic set); *пломбування* (filling); *препарування* (dissection); *сплетення* (plexus); *прогресування* (progression (process) is a doubling of consonants in suffixes [38, p. 59].

There is no doubling of consonants in such terms of foreign origin, which are widely used in therapeutic dentistry: *абсцес* (*abscess*), *ендодонтія* (*endodontics*), *глосалгія* (*glossalgia*), *гуттаперча* (*gutta-percha*), *гнійний* (*verucous*), *кореневі канали* (*root canals*), *дифузний пульпіт* (*diffuse pulpitis*), *манозний сосочок* (*man-nose papilla*), *зубна нитка* (*floss*). We emphasize that doubling occurs when the consonant prefix and root coincide: innervation (tooth pulp); irradiation of trigeminal pain; irregular dentin; three-dimensional root canal filling with "BeeFill" and "BeeFill pack" complexes - innovative technology of endodontic treatment [27, p.63].

The spelling difficulties of the dentistry terminology arise through the writing of complex words. We write complex English nouns such as *амелогенез* (*amelogenesis*), *ампліпульсфорез* (*amplipulphoresis*), *антибіотикотерапія* (*antibiotic therapy*),

анекслокатор (apexlokator), аутоінфекція (autoinfection), аутомасаж (self-massage), біосумісність (biocompatibility), бормашина (drill), вакуумкюретаж (vacuum curettage), вібро-, гідро-, вакууммасаж (vibro-, hydro-, vacuum-massage), вітамінотерапія (vitamin therapy), вестибулопластика (vestibuloplasty), гідроксианатит (hydroxyapatite), гідротерапія (hydrotherapy), гінгівоектомія (gingivectomy), гінгівостоматит (gingivostomatitis), гіперестезія (hyperesthesia), гіперкератоз (hyperkeratosis), гіноплазія (hyperplasia), зуботримач (lip holder), дентиногенез (dentinogenesis), діатермокоагулятор (diathermocoagulator), діатермокоагуляція (diathermocoagulation), діркопробивач (puncher), електроодонтодіагностика (electroodontagnosis), емалобласт (enamelblast), ехоостеотомія (echo osteotomy), життєздатність (viability), каналонаповнювач (ductile), кислотостійкість (acid resistance), кістогранульома (cyst granuloma), кріокюретаж (cryotherapy), кровоточивість (bleeding), мікрофлора (microflora), некретомія (necrectomy), ортопантомографія (orthopantomography), остеоінтеграція (osseointegration), пульпекстрактор (pulp extractor), пульпотомія (pulpotomy), радіовізіографія (radiovisiography), реопародонтографія (reorodontology), сенсигель (sensigel), слиновідсмоктувач (salivary gland), ультрафонофорез (phonophoresis), флексофайл (flexo), фотополімеризатор (photopolymerization), френулопластика (frenuloplasty), термодіагностика (thermodiagnosis), тортоаномалія (tortoisianatomy), хроноінтоксикація (chronointoxication), цинкооксидевгенол (zinc oxidevgenol), цистоектомія (cystectomy).

Let's draw our attention to complex adjectives, namely their spelling: multi-root, roller-shaped, calc-stone (acid), free-radical (reaction), intra-oral, near-focal, gram-negative, gram-positive, dentoalveolar, dentate (papilla), conventional (technique), toothpick, toothpick (system), ion-exchange (process), bone-plastic, cone-shaped, magnetostrictive ultrasound (scaler), micro-X-ray spectral (analysis), around-pulp (dentin), neurohumoral, low-intensity (light helium-neon laser), low laser (neon laser), low laser periodontomuscular (reflex), mandibular, anti-inflammatory, pseudo-membranous (candidiasis), light-hardening, fiberglass (cement) [48].

There are various cases of writing such complex adjectives as whitish-gray (plaque), purulent-inflammatory (complications), labial-buccal, enamel-dental (compound), erosive-ulcerative, acid-alkaline, clinical-anatomical, chalk-speckled (form of fluorosis), medical-instrumental (processing), papillary-marginal, air-abrasive (system), toxic-allergic (stomatitis), cylindrical-conical (pin form), zinc-phosphate (cement), dark brown (spots), maxillofacial, bright blue, light yellow (enamel glow), bright red (border) [49, p. 18].

We quote the following dental implements: cements, linings, varnishes, plastics, composites, compomers, orcomers, aerosols, apparatus, borons, "Vivadent", "Contra-sil", "Kalcevit", "Latex", "Units", "Silicin", "Silidont", "Cemion", "Carbondent", "Evicrol", "Charisma", "Prizmafil", "Mini-Piezon", "Hyposol"; also company names, for example, "Dentsply", "Ivoclar", and "Ultradent" [44, p.90].

Particular difficulties arise with English nominals, which are caused by the use of a distinctive form, and when interpreted into Ukrainian, it produces differences that mainly affect the letter. Indeed, we should consider our own division of forms into the

most popular lectures for dental therapists [5, p.24]. Ukrainian translation functions predetermine and include the limb – y and – ю when they mean:

1. the names of specific objects - dental instruments, devices, lining elements: amalgamreger, boron, branch, vasoconstrictor, verifier, veneer, depth gauge, desensitizer, drillbore, excavator, extractor, electrode, probe, tool (but instrument), paper clip, Krimer, K-file, laser, workshop, micromotor, tap, tip, spindler, tweezers, polisher, washer, rasp, rutfizer, scaler, saliva, spreader, stopper, tampon, fuser, stop, file, fluorine ilera (as a pin), a veneer, a fleece;
2. the names of the teeth and the proper noun "tooth": tooth, molar, premolar, incisor;
3. names of cell types, anatomical formations, separate tissues: fragment, nodule, enameloblast, epitheliocyte, erythrocyte, histiocyte, hump, granulocyte, denticulum, rudiment, stone (single value), leukocyte, pericatidoma, parotidata, perikidatum vesicles, blisters, horns, scars, papillae, follicles, cementocytes, tongue [45, p.16].

Endings –in, –y in the Ukrainian language have masculine nouns of the second derogation in the genitive singular, if they mean:

1. the name of a large proportion of diseases of the teeth and maxillofacial area: abscess, avitaminosis, alveolitis, arthritis, arthrosis, galvanosis, herpes, gingivitis, hyperkeratosis, glossitis, discoloritis, epulis, slaughter, infiltrate, stone (combined), candidiasis, caries, keratosis, keratosis, keratosis, keratosis, keratosis, keratosis papillitis, papillomatosis, periodontitis, fracture, periostitis, pulpitis, stomatitis, fluorosis, cheilitis, shock. Names of diseases which by their outward manifestations are anatomical formations, mainly on the skin or mucous membranes, include: up lupus, slurry, fistula, rash, boils, and barley [42, p.70]; by the same principle there should be "ecchymosis", but the dictionaries, in our opinion, do not correctly fix the endings [41, p.110] ;
2. the names of the tissues of the tooth, its individual elements, the set of organs in the system: chewing, dentition, dentin, epithelium, canal (but tubules), point (retentive), horn (pulp), ledge, follicle, cement, layer; noun bite [50];
3. names of processes, therapeutic technologies, drugs, substances: abrasive, adhesive, aerosol, acantholysis, acrylate, actinomycosis, amelogenesis, analysis, anamnesis, biocenosis, bonding, galvanosis, sealant, histogenesis, disinfectant, dentinogenesis, depopheresis, access, eug epsogomol, exsubenzol conditioner (orthophosphoric acid gel), cofferdam, curettage, varnish, cerebrospinal fluid, macro-, microfil, minidam, plaque, ormoker, potassium orotate, pathogenesis, pigment, powder, occlusion, puncture, propolis, anesthesia, polymethyl meth methyl acetate, meth example, rotocane, siler, silicate, spongiosis, stomatidine, tocopherol, ubiestezin, ultracaine, filler (as a substance), fluorapatite, fluorine gel, cement; but: activator, bonding agent, inhibitor, initiator (photopolymerization), catalyst, filler, oxidizing agent, stabilizer [48].

It should be noted regarding the use of nouns "organ" and "apparatus" in medicine. The noun "organ" has two meanings: 1) part of a body; 2) institution [22, p.171]. This noun is used by the first value that is decisive in medicine, for example: enamel body, the structure of the tooth as a body [5, p.24].

The noun "apparatus" also has two meanings: 1) device; 2) set of bodies [40, p.848]. Hence the peculiarities of the use of excellent endings are as follows:

- in the sense of "device" - termination: studied the structure of the system "Vector" ("Durr-Dental") as a dental device;
- in the meaning of "set of bodies": investigated the peculiarities of the functioning of the dentition apparatus and others.

It is worth noting that unspecified spelling issues include the termination of the generic case of nouns such as periodontium, periodontal, conditioner. Because "periodontium is a complex of tissues that surround the tooth". It includes gums, root cement, periodontal ligament (periodontal) and alveolar bone [26, p.201], then on semantic grounds nouns are periodontal, periodontal fit into the category defined in spelling as "substance, mass, material" [30, with. 230], and therefore should be used - just like the names of other tooth tissues: cement, dentin. However, modern authoritative terminology dictionaries capture these nouns with the ending -a. Not so long ago, the conditioner noun had the meaning of a specific subject - "the device thanks to which the required temperature, humidity of the air in the closed rooms is reached." With this meaning, this noun is used in the generic case ending with -a: air conditioning. However, modern language is very dynamic. With the development of new technologies in various fields of science, technology and production, the semantics of many words are expanding. Therefore, in everyday life, the well-known word such as air conditioning should be used with the ending -in: air conditioning. Due to the impact on the language system, through the bilingual environment that serves the dental industry, and leads to problems with the use of many terminological words and phrases, creating tokens that are not correct in the Ukrainian language [27, p.63].

Therefore, they uniquely divide and position the teeth and jaws on the movable (or fixed) just like all other organs. Onomastics is a science that studies its own names. In general, in medicine and dentistry, these names are very common, we consider it necessary to provide in this article a spelling-normalized list of those which, according to the observations, cause spelling difficulties in texts in dentistry: Simanovsky-Plaut-Vincent sore throat; Golgi apparatus; Epstein-Barr virus; Corfu fibers; Toms fibers; Fordies bets; Turner's tooth; teeth of Hutchinson-Fournier; Silnes-Loe gingivitis index; the Green-Vermillion index; Russell index; the Retius line; the Romanovsky Gimza method; samples: Aldrich; Rotger; Schiller-Pisarev; Hutchinson cutters; Dupuytren's symptom; syndromes: Addison, Verlhof, Düring, Lyell, Papillon-Lefebvre, Rossolimo-Bekhterev, Gangart; Gunther Schreger bands; Septon's stomatitis; the current of D'Arsonval; Ebner tangential fibers; Merkel's calf.

As of today, there is a problem of ordering the already formed medical terminology system, namely the dental one, in order to solve urgent problems of training highly qualified medical personnel, the formation of the next generation of Ukrainian doctors is impossible without mastering the professional language both at the level of international scientific terminology and at the level of medical lexis has national roots [12, p.17]. Analyzing the vocabulary of dental terminology, scientific articles, periodic medical monographs and descriptions of clinical cases, it is considered that the main body of the dental terminology system has already been formed, but it needs signifi-

cant ordering and standardization. The orderliness and systematization of term concepts is manifested in the desire to avoid polysemy, synonymy, multicomponentity of the term, congestion by foreign language units, eponymic terms, etc. [3, p.174].

The linguistic problem is to improve the terminology of dentistry, its practical implementation in the systematization, codification, ordering, unification and standardization, as well as the normalization of terminology, namely revision of the terminology in accordance with the norms of the Ukrainian language. The main purpose of the normalization of the dental term system is to improve it with those lexical models that best assist the implementation of all functions of the term, including communicative. The processes of normalization of terminological vocabulary are carried out with the help of norms of the literary language. The normativity of terms in linguistic terms means the correctness of their formation and use. The most important aspect is the development of a unified concept of term formation using the experience and positive heritage of scientists of different generations.

Industry dictionaries play a major role in this process. There are different ways in the approaches to their creation in the analyzes of published works, one of these ways was the renewal of the terminology of the 20-30s of the twentieth century, aimed at replacing the established terms in the language. Accepting Ukrainian medical terms of national origin, physicians find such implementation discontent. The expediency of introducing them into modern lexical circulation is often debated. Non-use of the Ukrainian language in the field of medicine leads to the rejection of terminology. Researchers have highlighted the causes of this phenomenon, primarily the lack of terminology dictionaries, Ukrainian-language medical aids, textbooks, the reluctance of physicians themselves to use Ukrainian-speaking terms [23, p.171]. Doctors say that when they kept their medical histories with the help of a Russian-Ukrainian medical dictionary with the foreign names of S. Nechai, misunderstandings in professional communication often arose. Based on this, research into the terminology of Ukrainian medicine should be thorough and collaborative with physicians.

Often there are tendencies that manifest themselves in the misuse of foreign languages, in most cases by English terms. None of these trends helps to normalize and develop Ukrainian medical terminology. It is necessary to maintain a balance while implementing vocabulary in order for medical terminology to develop the preconditions for effective professional communication and research at national and international levels. Despite the problems of Ukrainian term formation and the problems of Anglo-Ukrainian translation of terminological vocabulary, medicine is considered to be one of the most secured fields of science from a lexicographic point of view (more than 60 dictionaries from various fields of medicine). The main areas of Ukrainian terminological research include: development of methodological bases for the unification of term systems and their enrichment at the expense of their own linguistic units (theoretical aspect), participation of Ukrainian scientists in international organizations on standardization (pragmatic aspect), compilation of various vocabulary for collaboration). Ukrainian researchers A. Samolysov and A. Nikolaev indicate that the professional terminology should be unified and presented to the user in an easy form. The topics for discussion of linguists are the problems of usage, normalization and equivalent translation of terms; questions of excessive synonymy, littering of terminology

with numerous linguistic twists, correspondence of scientific terms to the structure of the Ukrainian language, expediency of borrowing. The development of scientific thought in Ukraine will improve thanks to its own terminological systems. It is important to define the tasks of terminology because translation of medical terminology is one of the main tasks of terminology as a science. Terminology covers such areas as: lexicographic (creation of various dictionaries); unification and standardization of terms; creation of categories and databases; translation of terms; terminological editing; organizational direction (covers the publication of special journals, collections on problems of terminology) [35, p. 220]. Translating specific medical terminology and abbreviations is one of the most difficult areas. The most important task in resolving this issue is to compile an English-Ukrainian dictionary of terminological vocabulary that would gather basic terminology in English, which is used by dentists, as well as to translate the terms into Ukrainian correspondences with appropriate interpretation of a concept, phenomenon or process.

As a terminological system, dental terminology, in its composition, holds the terms that emerged from the semantic development and terminology of commonly used autochthonous vocabulary (dental stone, tooth root) or were formed using their own word-forming means, and terms borrowed from the term systems. The correct translation of the term includes word formation and morphological structure, as well as semantic differences from common words. From the point of view of origin, medical terminology belongs to one of the oldest layers of the terminological dictionary of the Ukrainian language, so throughout the history of development it reflected the main ways of word formation that provided the ability to create new terms: 1) morphological: a) prefixed (prefixes indicate the localization of the phenomenon process or object, make an additional meaning that separates the term from among the totality of terms); b) suffix (dermatitis - dermatitis, where the suffix -itis = -it and indicates the name of the disease inflammatory); c) prefix-suffix method (periimplantitis - periimplantitis); d) basic and word addition (dentinoenamel - dentinoemal, sandwich technique - sandwich technique); syntax (overlay denture).

Translating difficulties arise because of the existence of homonymous terms, lexical elements, identical in form, but quite different in meaning. Not surprisingly, the character of the meaning of such homonymic terms is largely determined by the appropriateness of the original text to a particular field of science and technology and to the specific subject matter. For example, in medicine, the term separation has two meanings: one broader, general ("separation, stratification, disassembly process"), and the other narrower, dental: "special adjacent teeth." Translating the text from English into Ukrainian may result in incorrect translation of the term separation if the narrow and wide contexts do not allow us to determine exactly which of the following meanings the term separation is used (homonyms by denotation).

In addition to this type of dental terminology homonymy, there are the following types of terminological homonymy: 1) the same form has different meanings in different fields of science (for example, mouth in polytechnic terminology means an inlet, in geography - river mouth, and in dentistry - mouth cavity; post in the term system of polytechnics means a pillar, a support, a support, and in a dental term system a pin (homonyms by definition); 2) the same form of the word has different

meanings in different sub-branches of medicine (for example, depression in the term system of dogs depression means depression, depressed condition, and dentistry - recess, indentation (absolute homonyms) Translating dental terminology will mainly deal with lexical translation transformations, which are definite transformations by which one can make the transition from units of the original 37, pp. 84] Determine the main types of lexical transformations: translational transcription and transliteration, calculations and lexico-semantic substitutions (concretization, generalization, modulation). Complex lexical-grammatical transformations include antonymic translation, explication (descriptive translation), and compensation [38, p. 63]. Based on the above material and taking into account the peculiarities of the medical text and medical terminology, we can distinguish the following basic methods and techniques of translation of medical terms [29, p. 115]: 1) transcoding (transcription, transliteration): pinlay - pinley, abutment - abutment; 2) costing (semantic tracing: smear layer - greased layer); 3) translation by variant correspondent (post - support, post - pin); 4) translation by equivalent (molar - molar); 5) descriptive translation (scaling - removal of dental deposits). Translating dental terms requires that the translator have a sufficient level of knowledge in the relevant field of knowledge and a clear adherence to the norms of the Ukrainian language. The most acceptable for functioning in the medical term system are those words that are recognized by most specialists, understood by all, and adequately reflect the essence of the phenomenon or object [22, p.232]. The meaning of the term in medicine only then becomes common knowledge when it is fixed with a clear term does not imply different interpretations, is simple and unambiguous. Problems in the terminology of dentistry, as well as in the main Ukrainian writing base, compel every selfish scientist to trace and process this nameless branch of science. Differences happen everywhere, both in grammatical and in spelling, and in morphological fields. It is in this vision that we can not keep up with the development of noun endings. By spelling, endings are accepted by nouns when they mean: names of persons, first and last names; animals and trees; objects; settlements; other geographical names; measures of length, weight, time, etc. [47]; numeric names; the names of the machines and their parts; terms of foreign origin, which denote the elements of the structure of something, specific objects, geometric figures, as well as the Ukrainian origin suffixal word terms [21, p.265].

Nouns are widely distributed and used in writing for example: substance, mass, material; collective concepts, including names of shrub and herbaceous plants and varieties of fruit trees; names of buildings, structures, buildings and their parts; names of institutions, institutions, organizations; the vast majority of words with place, space, etc. (with refinements); phenomena of nature; names of feelings; names of processes, states, properties, features, formations, phenomena of social life, general and abstract concepts; terms of foreign origin, meaning of physical or chemical processes, part of an area, etc. names of games and dances; most complex non-suffix words (except creature names); the vast majority of prefixed nouns with different meanings (except creature names); names of rivers, lakes, mountains, islands, peninsulas, countries, regions. [48]. However, there is no mention of nouns related to medical terms in spelling. Due to the need for ordering medical terms in this grammatical category, their detailed classification was developed.

Nouns in case letters are displayed in the letter when they mean:

1. names of specific items: amalgamaker, boron, branch, vasoconstrictor, verifier, veneer, probe, canister, container, clasper, tip, polisher, blister, rasp, ruffisher, scaler, salivary gland, spreader, stopper, tampon, tampon, tampon filler (as a pin), finer, floss, template (device, drawing), but template (sample); spatula, pin, cork-screw;
2. varieties of cells, anatomical entities, separate tissues: fragment, nodule, enameloblast, epitheliocyte, erythrocyte, histiocyte, hump, granulocyte, denticulum, germ, stone (single value), leukocyte, pericymata [39, p.848].

The term means words or phrases that refer to the special concepts of a specific special area of science, technology, art. The term has a definition that denotes realities, gives a brief description of the object or phenomenon. Medical term is characterized by the presence of definition, maximum abstractness, lack of expression, emotional coloring, compliance with a special concept, logical accuracy. Medical translation is a complex multi-vector type of human activity. The basic requirements are the accuracy and completeness of the removal of the content of the utterance, lexical units. Medical terminology is a collection of words and phrases used by experts to refer to scientific concepts in the field of medicine and health care. Common ways of translating lexical units: 1) lexical borrowing, 2) semantic borrowing, 3) innovation units.

Among the translation transformations there are translation techniques: transcription and transliteration; calculations and lexico-semantic substitutions (concretization, generalization), modulations. Eponyms are terms formed by proper names. Medical eponyms are a reflection of the evolution of medical knowledge and make up a large part of medical terminology. By the structure of the eponym, they are often two-component terminological conjunctions having, along with their own name, a thematic and structural kernel with a generalized meaning. The abbreviation means any shortened spelling and pronunciation of a word or phrase. The abbreviation consists of initial letters, separate syllables in different combinations, complete first word and abbreviated second. The structure of dental terminology includes: a) nouns, b) adjectives. In their structure, anatomical terms are: 1) monosyllabic, 2) ambiguous, consisting of one noun and adjective (agreed or disagreed), 3) verbose.

3 Methods of Research of Dental Terms

3.1 Methods of Research of Dental Terminology

Descriptive method is a planned inventory of language units and an explanation of the features of their structure and functioning at a certain (given) stage of language development, i.e. in synchrony. The descriptive method distinguishes the following successive steps: 1) the allocation of units of analysis (phonemes, morphemes, tokens, constructions, etc.); 2) membership of the selected units (secondary segmentation): division of sentence into word combination, word combination into word forms, word forms into morphemes, morphemes to phonemes, phonemes to differential features; 3) classification and interpretation of selected units.

The descriptive method employs techniques of external and internal interpretation. Techniques of external interpretation are of two types: a) in connection with extralinguistic phenomena (sociological, logical-psychological, articulatory-acoustic); b) in relation to other linguistic units (techniques of inter-level interpretation).

A contextual analysis was conducted to analyze how the instructions were written. Are they accessible to the average reader? Is it informative, accurate and meaningful? Conducting conceptual analysis also involved a combination of analysis based on dictionary definitions and context analysis of INP.

Comparative method (contrastive, typological) is a set of methods of study and description of language through its systematic comparison with another language in order to identify its specificity. This method is applicable to learning any languages - related and unrelated. Like the descriptive method, it aims at the current (certain) state of the language. Its main subject is the study of the structure of language in its similarities and differences.

Quantitative method is the identification and formation of a system of numerical characteristics of the studied objects, phenomena and processes of reality, which in the course of mathematical processing create the basis for the disclosure of quantitative measures of appropriate quality. The essence of the quantitative method lies in the formalization and analysis of information from historical sources using mathematical methods. Quantitative methods are the usual analysis of phenomena and processes on the basis of the system of quantitative indices, and mathematical methods are the construction on the basis of the system of numerical data of formal-quantitative, mathematical models of these phenomena and processes.

3.2 The Technique of Enclosing a Frequency Dictionary Based on the Housing

Modern medicine as one of the most developed branches of Ukrainian science is used in a properly organized national language, the basis of which is a special vocabulary.

The importance of research in the field of dental clinical terminology is due to the fact that it is the oldest terminology, the example of which can trace the ways of formation, development and improvement of terms, the implementation of semantic processes, certain tendencies, methods and means of word formation, as well as the functioning of these tools in the field of medicine. At present, medical-clinical dental terminology has not been sufficiently studied, its vocabulary is disordered, which is due to the lack of a complete dictionary of dental clinical terms in Ukrainian, as well as the lack of a complete list of clinical terms with definitions in the available medical interpretative dictionaries. Therefore, there is a need to investigate the semantic and structural features of dental terms in instructions for medication [12, p. 17].

When semantizing new unknown terms in dentistry vocabulary, the term is derived based on its internal structure or context. Knowledge of the meaning of term elements contributes to the semantization of the term as a whole. The presence of a certain conceptual framework and a broad outlook also stimulate the process of deriving meaning of terms. Therefore, there is an urgent need to translate medical instructions, as the number of imported medicines in Ukraine has increased rapidly in recent years.

Because of this, the study of terms, terms, and instructions to medicines, from the semantic and structural aspects, will reveal the unique peculiarities and differences of Ukrainian and English terminologies. The interpretation and translation of terms in the field of dentistry is based on the ability to perceive the term as a whole, taking into account the meaning of all [11, p.183]. In order to choose an equivalent translation of the term, one must have the dental terminology of the mother tongue and be well versed in the field of medicine in question [50].

Medicines sold in pharmacies have accompanying leaflets - instructions for proper use. In linguistics, instruction is defined as text, which is a kind of discourse, and therefore has its main characteristics. The instruction includes certain macrostructures that determine its thematic content [23, p.171]. However, the texts of the instructions, describing the various preparations, reveal the common features of the structural organization. There is a clear structural division of the text corpus into separate sections. The distinction is made using the system of headings and subheadings. The system of headings and subheadings forms a structural skeleton of the text, and the blocks within the frame have a certain semantic content and pragmatic orientation.

Based on the same instructions of the three terminology systems, a parallel comparative corpus was created. Construction of a comparative linguistic corpus of pharmaceutical instructions was carried out in stages. An original database of Internet resources was created in accordance with the anatomical and therapeutic classification. As the material of any research in corpus linguistics should be chronologically and thematically homogeneous, the same Ukrainian-language (200 pieces) and English (200 pieces) instructions for medical products were chosen for this purpose.

Thanks to the AntConc computer program, the implementation of the lexical parsing of the above instructions has been implemented.

As a result of the lexical analysis, manual lemmatization was carried out. After the completion of the lemmatization, a sample of parts of the language from medical dictionaries and encyclopedias was sampled. The sampling method used to select terminological units in Ukrainian and English-language instructions.

The urgent internationalization of medical communication and the formation of a large number of new terms lead to an in-depth study of medical dental terminology, provide opportunities for the compilation of dictionaries and directories of medical products that promotes the development of medicine. The system of linguistic units is constantly changing, so there is a need to codify specific types of linguistic norms at certain stages of language and society development that the speaker should focus on.

Frequency dictionaries indicate the frequency of words used at certain times. There are over 600 published and computer frequency dictionaries for 40 languages worldwide. The frequency dictionary lists the words of a particular language, indicating how many times a particular word has been used in texts of the appropriate length, capable of objectively showing the frequency of occurrence of a word in a speech. The principle of word placement is not alphabetical, but in order of decreasing frequency. The dictionary begins with the most commonly used words and ends with the least used. Frequency dictionaries provide manuals for accelerated learning of technical and scientific translation.

The frequency dictionary obtained by analyzing a sufficiently large text fragment (novels, novels) demonstrates the richness of the author's language.

Frequency dictionary of the writer (or his specific work) gives information about stylistic features of the writer's language at the level of vocabulary, such as the number of words from territorial or social dialects, frequency of their use, etc. In addition, the frequency vocabulary is able to assist the researcher in identifying frequently used groups of words that stand out for some additional feature. The frequency dictionary can also indicate the written language of the author of the analyzed lines.

Depending on the type of lexical units, one can distinguish the frequency dictionary of word forms, words (lexemes), word bases (used in computer science), words in certain meanings (semantic frequency dictionary), word combinations.

Without statistical surveys of large arrays of texts belonging to different functional styles and genres, it would not be possible to detect at least such regularities as the limited register of words in any text or array of texts, the law of preference for which a small number of linguistic units is used very often, and the rest with low frequency. There are many statistical patterns and parameters that show how vocabulary works in different genre texts. All of them have found practical applications, such as the selection of a lexical minimum in foreign language learning, the creation of effective shorthand systems, the attribution of unsigned manuscripts, the creation of economical algorithms for text coding for computers, as well as the systems of machine word processing - machine translation, information retrieval, automatic abstracting annotation of the literature. The practical needs of a statistical survey of texts to study them on computers are particularly important in the period of scientific and technological revolution. Therefore, if the first frequency dictionaries were created for the purpose of improving the systems of shorthand and for the selection of the lexical minimum, nowadays frequency dictionaries are created mainly for the needs of information search and machine translation.

3.3 Stages of Creating a Frequency Dictionary for Ukrainian Medicines Instructions

The process of enclosing the frequency vocabulary building took place in several stages and according to the corresponding structure.

In the first phase, a sufficient number of instructions for medicines were collected (60 instructions would be required, which would be available in all two languages). In order to be able to further process the material, the text of the links from doc format to txt was converted. The instructions were then read and analyzed.

For proper ordering, the instructions were organized by list in Excel (Fig. 1).

The ticks indicate those instructions that were available in one language or another

Further, in the AntConc version 3.5.8 in Word List, the Sort by freq parameter was selected to represent the words in alphabetical order and after starting the Start button the result was a word list in Fig 2-3.

Concordance was also considered for certain words of choice (Fig. 4).

	A	B	C	D	E	F
1	List of Drugs	Ukrainian	English	Country of Origin	Graduation year	Kod ATC
2	Sodium fluoride	є	є	USA	з 10.06.2002 до 10.06.2007	A01AA01
3	Sodium monophosphate	є	є	Spain	з 29.07.2002 до 29.07.2007	A01AA02
4	prednisolone, combinations	є	є	India	з 11.12.2003 до 11.12.2008	A01AC04
5	epinephrine	є	є	Ukraine	з 20.07.2006 до 20.07.2011	A01AD01
6	chlortetracycline	є	є	Ukraine	з 01.08.2005 до 01.08.2010	A01AB21
7	doxycycline	є	є	Vietnam	з 21.03.2002 до 21.03.2007	A01AB22
8	hydrogen peroxide	є	є	Ukraine, USA	з 15.02.2010 по 15.02.2015	A01AB02
9	chlorhexidine	є	є	Ukraine	з 10.11.2009 по 10.11.2014	A01AB03
10	amphotericin B	є	є	India	з 23.05.2012	A01AB04
11	Polynoxylin (trade name Anaflox)	є	є	Ukraine	з 12.08.2019 до 01.01.2027	A01AB05
13	domiphen bromide	є	є	United Kingdom	з 05.08.2005 до 10.08.2010	A01AB06
13	oxycitoline	є	є	Slovenia	21.05.2003 до 21.05.2008	A01AB07
14	neomycin	є	є	Poland	з 24.11.2016	A01AB08
15	metronazole	є	є	Ukraine	з 17.06.2015 до 17.06.2020	A01AB09
16	natamycin	є	є	Ukraine	з 16.03.16 до 16.03.21	A01AB10
17	hexetidine	є	є	Ukraine	з 21.03.2002 до 21.03.2007	A01AB11
18	acetylsalicylic acid	є	є	Ukraine	з 25.01.2012 по 25.01.2017	A01AB05
19	tetracycline	є	є	Ukraine	з 03.11.2006 до 03.11.2011	A01AB13
20	dexamethasone	є	є	India	з 21.05.2003 до 21.05.2008	A01AC01
21	hydrocortisone	є	є	Ukraine	з 15.05.2015 до 15.05.2020	A01AC01

Fig. 1. List-table of collected instructions in Excel.

Rank	Freq	Word	Rank	Freq	Word
3078	2	зміняти	127	46	набряк
3079	2	змішати	128	46	спрямляти
3080	2	змилуванні	129	45	блокування
3081	2	знімаються	130	45	гідроксиду
3082	2	значного	131	45	засіб
3083	2	знівожденні	132	45	печінки
3084	2	знижене	133	44	показання
3085	2	зниженою	134	44	препаратів
3086	2	знижувалися	135	44	розами
3087	2	знімати	136	44	функції
3088	2	зникають	137	43	алмагель
3089	2	зніщати	138	43	розлади
3090	2	зростає	139	43	тіла
3091	2	зубах	140	43	форма
3092	2	зубів	141	43	інших
3093	2	зуловлений	142	42	гідроксид
3094	2	зуловлення	143	42	кислоти
3095	2	зульовлює	144	42	кальцію
3096	2	зустрічаються	145	42	одноразово

Fig. 2. The results of AntConc version 3.5.8 with the instructions for the medicines are sorted by frequency in Ukrainian

Rank	Freq	Word	Rank	Freq	Word
551	1	агресія	6783	1	зудом
552	5	агранулоцитоз	6784	5	зудомні
553	1	агранулоцитоз	6785	2	зудомний
554	1	агресивно	6786	1	зудомному
555	4	агранулоцитоз	6787	2	зудомні
556	1	агресивно	6788	1	сукралоза
557	2	агресивні	6789	1	сукраліфат
558	1	агресивна	6790	1	сукцинату
559	1	агресивних	6791	4	сульфірид
560	1	адитиви	6792	4	сульфаніламідани
561	3	аддісона	6793	1	сульфаніламід
562	1	аддісонічний	6794	3	сульфаніламідів
563	3	адекватних	6795	1	сульфат
564	2	адекватного	6796	4	сульфату
565	2	адекватні	6797	1	сульфонід
566	2	адекватну	6798	1	сульфоксиду
567	1	аденогіфіза	6799	1	сульфонату
568	1	аденоматоз	6800	3	сульфанілозаніни
569	1	аденілатінази	6801	1	суми

Fig. 3. The results of AntConc version 3.5.8 with the instructions for medicinal products are sorted alphabetically in Ukrainian

uk	uk	uk
1	...перш ніж приймати цей лікарський засіб. Застосування у період вагітності або	magnesium
2	розмідашу), антипротозойний і антибактеріальний засіб. Механізм його дії полягає в	metronidazole
3	алергія на будь-який лікарський засіб. Незважаючи на те, що надавнені	hydrocortisone
4	іннозуювальний, гіпертензивний, гіперліпемічний засіб. Препарат стимулює α- та β-	epinephrine
5	...перш ніж приймати цей лікарський засіб. Цей лікарський засіб містить спирт	hydrocortisone
6	кількістю води та вугілля. Лікарський засіб бажано застосовувати окремо від їжі.	magnesium
7	2A. Бензоксонію хлорид - антисептичний засіб групи четвертинних амонієвих сполук з	benzoxonium
8	2A. Бензоксонію хлорид - антисептичний засіб групи четвертинних амонієвих сполук з	benzoxonium
9	Амлексанос, атілеканос, протизапальний засіб для місцевого застосування. Показання до	amlexanox_i
10	Спосіб застосування та дози. Лікарський засіб для перорального застосування дорослим та	magnesium
11	осічні властивості Фармакокінетика Цей лікарський засіб знизює ступінь об'ємну стресової, шлунка	magnesium
12	розлогою вагітності, якщо застосовувати лікарський засіб згідно з інструкцією, але слід	magnesium
13	уважати з тим, що лікарський засіб змінює кислотність шлункового соку, що	algeldrate_u
14	таблеток з альюмоновими оксидами; лікарський засіб можна застосовувати пацієнтам, які страждають	magnesium
15	кальціурія, остеопороз, особливо цей лікарський засіб містить адреналін, гідрокортизон, гіпернатрієві	almagate_u
16	форми ниркової недостатності (особливо цей засіб містить натрій), гіпернатріємія до компонентів	magnesium
17	віком до 3 років. Цей лікарський засіб містить менше 1 ммоль (23 мг) дозу	hydrocortisone
18	кису та рису. Цей лікарський засіб містить невелику кількість етанолу (алкоголю),	magnesium
19	дії не проводилося. Цей лікарський засіб містить сорбін. Якщо у пацієнта	hydrocortisone
20	цей лікарський засіб. Цей лікарський засіб містить спирт бензойний, тому його	hydrocortisone
1	лейкоцитів і лімфоцитів у середстві запалення. Гальмус сполучає в собі реакції у воді	hydrocortisone
2	та ексудативні процеси в середстві запалення. Дія гідрокортизону опосередкована через	hydrocortisone
3	вільнодіючі глюкокортикоїди, які діють на медіаторів запалення, а також зменшення прохідності капілярів,	prednisolone
4	уражені судини до часу, коли запалення буде закінчене. Треба уникати введення	desamethasone
5	мікробів без утворення поліпід плейного запалення в тканині, а також мікрооб'єктів (приблизно заворочанні	minocycline
6	синтезі і вивільненні лінійних медіаторів запалення; викликає зменшення прохідності капілярів, гальмує	triamcinolone
7	запалення сечовідних шляхів / кон'юнктивіту / запалення зовнішньої оболонки ока / множинного	minocycline
8	лібідю). З боку органів чуттів: запалення кон'юнктив, зв'язки у вушні.	famotidine_u
9	вороби) при ревматоїдному артриті (також запалення окремих судин); - синцитії при остеоартриті;	desamethasone
10	сирит зорового нерва; - спалити очні офтальміди - запалення переднього сегмента; - алергічний кон'юнктивіт;	desamethasone
11	шлунково-кишкової кровотечі, гострий панкреатит (запалення підшлункової залози), загострення хронічного панкреатиту	nizatidine_u
12	вороба, що характеризується поодинокими уретритом / запалення сечовідних шляхів / кон'юнктивіту / запалення	minocycline
13	передається людині від тварин, уретрити (запалення сечовипускального каналу), синдром Рейтера (іфекція	minocycline
14	полягає у гальмуванні всіх фаз запалення; стабілізація клітинної і субклітинних мембран;	hydrocortisone
15	та дванадцятипалої кишки, ерозивної езофагіт (запалення стравоходу з порушеннями цілісності його	ranitidine_u
16	шлунка і дванадцятипалої кишки, рефлюксоезофагіт (запалення стравоходу, обумовлене заходженням шлункового вмісту	nizatidine_u
17	його слизової оболонки) і рефлюксогастрит (запалення стравоходу, обумовлене заходженням шлункового вмісту	ranitidine_u
18	лів. Гідрокортизон гальмує вивільнення медіаторів запалення, у тому числі інтерлейкіну-1 (IL-1).	hydrocortisone
19	нудота, блювання; в окремих випадках - запалення шлунково-кишкового тракту, ерозивно-виразковий	acetylsalicylic
20	оджена гіпергліцезія надниркової залози; - нежить запалення цитовидної залози; - гіперкальціємія, стримчена	desamethasone

Fig. 4. An example of a dictionary article where the selected words "remedy" and "inflammation" are shown in context and marked in which instructions they were used

For easier use of the vocabulary body, it was decided to lemmatize it, in 55 instructions there were 18120 words, after the lemmatization of which there were 8147 words (Fig. 5).

A	B	C
2567	1	очирет
2568	17	енцефалопатя
2569	1	енцефалний
2570	5	есинофил
2571	4	епіастральний
2572	2	епіастрий
2573	1	епідеміологічний
2574	1	епідемний
2575	4	епідермальний
2576	2	епізод
2577	3	епіскандит
2578	6	епілепсія
2579	6	епінефрін
2580	1	епітелій
2581	1	ергостеролу
2582	14	еритема
2583	1	еритробластопенія
2584	2	еритроміцин
2585	1	еритроцитарний
2587	1	еритроцит
2588	1	еритроїдний
2589	2	еритровий

Fig. 5. Lemmatization of medical terms from Ukrainian instructions

3.4 Stages of Creating a Frequency Dictionary for English Medication Instructions

The process of enclosing the housing of this frequency vocabulary was performed in the same way as the previous one. A sufficient number of instructions for medical preparations (60 instructions) were also collected. Documents in doc format were converted to txt format. The instructions were then read and analyzed. Further, in the AntConc version 3.5.8 in Word List, the Sort by freq parameter was selected to represent the words in alphabetical order and after starting the Start button the result was a word list in Fig. 6-7.

Rank	Freq	Word
47	113	pharmacist
48	112	also
49	104	before
50	104	stomach
51	102	epinephrine
52	101	skin
53	101	treatment
54	99	from
55	99	taking
56	96	has
57	94	tell
58	93	medical
59	92	more

Rank	Freq	Word
154	38	swelling
155	37	certain
156	37	dosage
157	37	metronidazole
158	37	nausea
159	37	only
160	36	associated
161	36	directed
162	36	keep
163	36	occur
164	36	oral
165	36	reaction
166	36	solution

Fig. 6. The results of the AntConc version 3.5.8 with the instructions for the medicines are sorted by frequency in Ukrainian

Rank	Freq	Word	Rank	Freq	Word
113	11	adults	1041	1	decolonization
114	1	advanced	1042	1	decontamination
115	28	adverse	1043	9	decrease
116	5	advertisement	1044	16	decreased
117	25	advice	1045	2	decreases
118	1	advisable	1046	4	decreasing
119	4	advise	1047	2	defect
120	3	advised	1048	1	defective
121	1	aerobic	1049	3	defects
122	6	aerosol	1050	1	defensive
123	3	aeruginosa	1051	4	deficiency
124	26	affect	1052	1	defined
125	9	affected	1053	2	definition

Fig. 7. The results of the work of AntConc version 3.5.8 with the texts of the instructions for medicinal products are sorted alphabetically in Ukrainian

Concordance was also considered for certain words of choice (Fig. 8).

File	AntConc	File
1	Indication Pain, fever, and inflammation	acetylsalicyl
2	the itching, redness, dryness, crusting, soiling, inflammation, and discomfort of various skin conditions,	tramcinolol
3	indicated to relieve pain, fever, and inflammation associated with many conditions, including the	acetylsalicyl
4	Attack (DIA) Venous Thromboembolism (VTE) Acute inflammation Death by myocardial infarction Moderate Pain	acetylsalicyl
5	is used for Mouth infections, Gingival inflammation, Dental plaque and other conditions. This	ibuprofen
6	conditions and symptoms: Mouth infections Gingival inflammation Dental plaque Tetracolum iodide may also	ibuprofen
7	tion, gastroesophageal reflux disease, heartburn, inflammation in the stomach (gastritis) or stomach	hydrochloric
8	in reducing supragingival plaque and gingival inflammation PMID:12634495 Sharma NC et al	hexetidin_en
9	substances in the body that cause inflammation. Prednisolone is used to treat many	prednisolone
10	a significant decrease in pain and inflammation. The drug elicited a good response,	domiphen_e
11	prevention of release of prostaglandins in inflammation, this drug may stop their action	acetylsalicyl
12	reduction of supragingival plaque and gingival inflammation with reductions of 6.3%, 33.5% and 56% for gingiv	hexetidin_en
File	AntConc	File
1	to be substantially excreted by the kidney, and the risk of adverse reactions	sodium fluo
2	to be substantially excreted by the kidney, and the risk of toxic reactions	sodium fluo
3	phosphate levels in people with certain kidney conditions. Aluminum hydroxide may also be	aluminium_h
4	take this medicine if you have kidney disease, a history of kidney stones,	aluminium_h
5	, tell your doctor if you have kidney disease, Alzheimer's dementia, severe constipatio	magaldrate_
6	, tell your doctor if you have kidney disease, Alzheimer's dementia, severe constipati	magaldrate_
7	if you have heart disease, diabetes, kidney disease, an electrolyte imbalance (such as	amphoteric
8	pharmacist your medical history, especially of kidney disease, appendicitis or symptoms of appendicitis	magnesium
9	you have ever had liver disease, kidney disease, asthma or sulfite allergy, increased	doxycycline
10	if you have liver disease, or kidney disease, if you are using tetracycline	tetracycline_
11	or pharmacist before using this product: kidney disease, liquids, powders, or some other	magnesium
12	or pharmacist before using this product: kidney disease, liquids, powders, or some other	magnesium
13	(e.g., tuberculosis, herpes, fungal infections), kidney disease, liver disease, mental/mood conditions (desametinas
14	take this medicine if you have kidney disease, liver disease, or porphyria. Heartburn	ranitidine_er
15	take this medicine if you have kidney disease, liver disease, or porphyria (a	ranitidine_er
16	, tell your doctor if you have kidney disease, myasthenia gravis, or Parkinson's	neomycin_en
17	have any of these other conditions: kidney disease, myasthenia gravis, or Parkinson's	neomycin_en
18	you have ever had liver or kidney disease, nervous system disease, Cocayne syndr	metronidazo
19	, nausea, or vomiting; frequent chest pain; kidney disease or liver disease. It is	nizatidine_en
20	you have or have ever had kidney disease or stomach conditions, tell your	calcium carb

Fig. 8. An example of a vocabulary article, where the selected words "inflammation" and "kidney" (kidney) are shown in context and marked in which instructions they were used

For easier use of the vocabulary body it was decided to lemmatize it, in 56 instructions there were 18160 words, after which 8156 words were written out (Fig. 9).

A	B	C
101	8	adrenalin
102	6	adrenergic
103	1	adrenofrome
104	1	adreninum
105	13	adult
106	1	adsorb
107	1	adsorbed
108	1	adsorbent
109	1	advanced
110	25	adverse
111	5	advertisement
112	25	advice
113	1	advisable
114	4	advise
115	12	age
116	5	aged
117	2	agency
118	14	agent
119	7	anemia

Fig. 9. Lemmatization of medical terms from English instructions

Fig 10-11 and Table 1 also provides tables of lemmatized pharmaceutical terms that have already been arranged in absolute and relative frequency in the final stages.

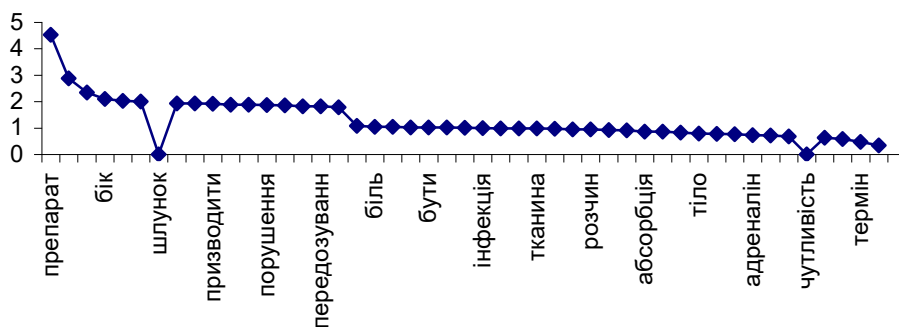


Fig. 10. Frequency Dictionary of Ukrainian words, sorted by frequency

Table 1. Frequency Dictionary of Ukrainian and English words, sorted by frequency

N	Ukrainian word	Relative frequency	Relative frequency	English word	Relative frequency	Relative frequency
1	препарат	691	4.531	dose	435	3.054
2	пацієнт	439	2.878	effect	433	3.041
3	реакція	357	2.341	medication	402	2.823
4	бік	321	2.105	treatment	360	2.528
5	кров	309	2.026	sick	355	2.492
6	введення	305	2	pharmacist	313	2.198
7	шлунок	303	1,987	product	307	2.156

N	Ukrainian word	Relative frequency	Relative frequency	English word	Relative frequency	Relative frequency
8	недостатність	295	1.934	stomach	304	2.134
9	розвиток	295	1.934	patient	302	2.121
10	призводити	292	1.914	epinephrine	302	2.121
11	нирковий	287	1.881	skin	301	2.114
12	система	287	1.881	infection	300	2.107
13	порушення	286	1.875	cause	292	2.051
14	побічний	283	1.856	symptom	291	2,043
15	терапія	278	1.823	pain	288	2.022
16	передозування	278	1.823	allergic	280	1.966
17	період	272	1.783	pregnancy	278	1.952
18	вагітність	164	1.075	injection	273	1.917
19	біль	160	1.049	condition	267	1.875
20	підвищення	159	1.042	mouth	254	1.784
21	алергічний	155	1.016	occur	251	1.762
22	бути	155	1.016	blood	250	1.756
23	ацетилсаліциловий	155	1.016	overdosage	249	1.748
24	властивість	153	1.003	pulmonary	247	1.734
25	інфекція	152	0.996	kidney	246	1.727
26	тяжкий	150	0.983	healthcare	243	1.706
27	тракт	150	0.983	side	243	1.706
28	тканина	149	0.977	emergency	243	1.706
29	спостерігати	148	0.971	solution	239	1.678
30	серцевий	144	0.944	swelling	238	1.671
31	розчин	144	0.944	nausea	237	1.664
32	показання	140	0.918	liquid	235	1.651
33	прийом	139	0.911	interaction	233	1.636
34	абсорбція	132	0.865	reaction	231	1.622
35	виробник	132	0.865	chloride	229	1.608
36	антибіотик	126	0.826	contain	226	1.587
37	тіло	121	0.793	headache	225	1.581
38	травлення	118	0.773	sore	224	1.573
39	аптека	117	0.767	adrenalin	224	1.573
40	адреналін	111	0.727	liver	221	1.552
41	шкіра	109	0.714	tongue	220	1.545
42	вміст	103	0.675	insufficiency	213	1.496

N	Ukrainian word	Relative frequency	Relative frequency	English word	Relative frequency	Relative frequency
43	чутливість	98	0,642	teeth	207	1.454
44	впливати	96	0.629			
45	рекомендувати	88	0.577			
46	термін	73	0.478			
47	прийом	51	0.334			

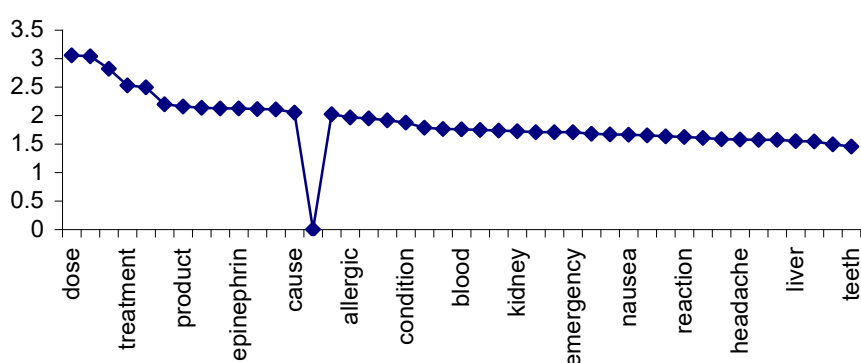


Fig. 11. Frequency Dictionary of English words, sorted by frequency

Now, comparing the terms in all two languages, we can compare in percentage terms the relative frequency of how often one or the other word was encountered in the IMP in Ukrainian and English languages.

Therefore, it is possible to carry out the analysis according to this table (Table 2, Fig. 12) and conclude that in Ukrainian and eng. In most languages you can find completely different words, and that one word that is in Ukrainian language stands in 4th place, in English language can be as much as 25 and vice versa.

Table 2. Comparison of the most frequent words in the texts of the instructions for medicines

Sequence number	Ukrainian language	Relative frequency, %	Sequence number	English language	Relative frequency, %
1	препарат	4.531	3	medication	2.823
2	пацієнт	2.878	9	patient	2.121
3	реакція	2.341	34	reaction	1.622
4	бік	2.105	27	side	1.706

Sequence number	Ukrainian language	Relative frequency, %	Sequence number	English language	Relative frequency, %
5	кров	2.026	22	blood	1.756
6	введення	2	18	injection	1.917
7	шлунок	1.987	8	stomach	2.134
8	недостатність	1.934	42	insufficiency	1.496
9	розвиток	1.934	-	-	-
10	призводити	1.914	13	cause	2.051

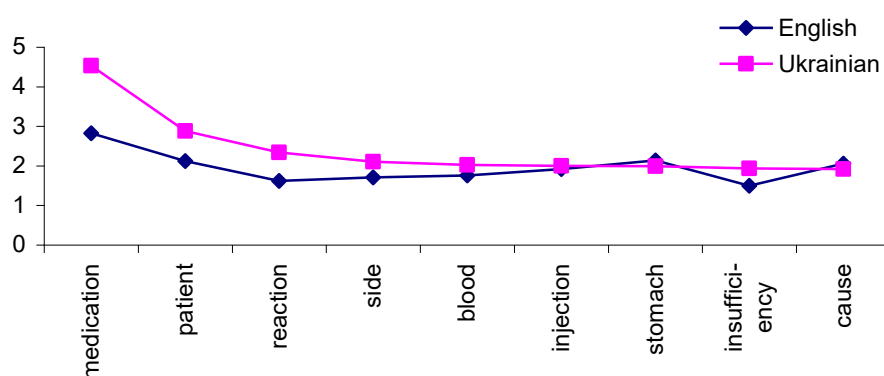


Fig. 12. Comparison of the most frequent words in the texts of the instructions for medicines

The C # programming language was used to create the application. C # is an object-oriented programming language with a secure typing system for the .NET platform. Developed by Anders Galesberg, Scott Wilmut and Peter Goldde under the auspices of Microsoft Research (Microsoft).

The C # syntax is close to C ++ and Java. The language has strict static typing, supports polymorphism, operator overloads, pointers to class members, attributes, events, properties, exceptions, comments in XML format. Adopting much of its predecessors - C ++, Delphi, Module and Smalltalk - C #, relying on the practice of using them, eliminates some models that have proven to be problematic in the development of software systems, such as multiple class inheritance (unlike C ++).

I developed the program "Dental Terms Translator" using C #, allows you to translate the word from English into Ukrainian (Fig. 13). In the search bar, enter the word we need in English, below, on the left, in the "English" option we see a list of English terms, on the right is the "Ukrainian" option, which displays a translation of the word into English, which was typed in English in the search ("Search").

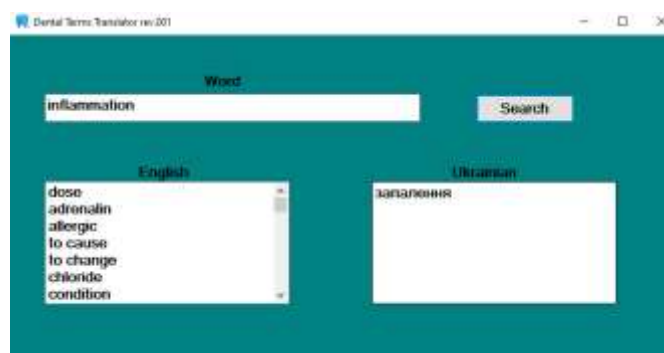


Fig. 13. Dental Terms Translator interface

Therefore, this section describes the steps for creating a frequency dictionary in Ukrainian and English, as well as the process of compiling a frequency dictionary in AntConc version 3.5.8. The words were sorted by frequency and alphabetical. Even a simple observation of the text shows that the words in terms of their frequency are not used equally: some are repeated, others are rare, some are extremely rare. To reflect this pattern, linguists use concepts such as "common", "common", "low", "underused", "non-common", "rare" and under. However, these concepts cannot give an idea of the scientifically sound measure of the use of words, of the scope of their prevailing use, of the significant differences in the use of words or groups of words in style variants of texts. All these patterns of functioning of vocabulary (or other language units) can be revealed only by statistical methods. This is why they have become so widely used in linguistic research over the last decades.

Frequency dictionaries from different genres are of great value. The studied measures of their similarity and the nature of the statistical distribution give interesting information about the qualitative bundle of vocabulary depending on the scope. The issues of systematization of vocabulary are related to the differentiation of active and passive stock, which in turn requires a differential approach to oral and passive language, age, professional and educational categories of native speakers. Frequency dictionaries can also be useful for learning a foreign language, for vocabulary in corpus lexicography, and for further use of content analysis.

4 Features of Dental Terms

4.1 Semantic Features of Dental Terms

Language semantics is a section of linguistics that is closely linked to lexicology and studies the meaning of words and their components, phrases and phraseologisms. Terminology is a complex of lexical units of the same language that defines the concept of a particular special area of knowledge or activity formed in the process of origin and development of this field [62-67].

The terminological system (terminological system) is a symbolic model of a separate theory of a specific sphere of knowledge or activity, the elements of which are words and phrases, a specific language for specific purposes, and the structure is basically adequate to the structure of the concepts of this theory [68-75].

Also, the terminological field is explained as a conceptual-semantic category, in which the system-functional features of the terms are combined - a hierarchical structure of a series of terms, combined with a common meaning and depicting a separate conceptual sphere in the language. The terms of stylistic affiliation in modern lexicology are exactly equated with professionalism. However, there is a difference, because the terms are completely official and well-established names in the science, and professionalism - names that constantly occur in spoken language among people of any profession, specialty, but not rigidly fixed, empirically defined concepts [85-92].

In other words, the term is aimed at narrow-mindedness, whereas professionalism is designated as a literary and colloquial word, respectively. Their functional closeness is that both terms are unclear to native speakers [93-97].

Medical professionals, for example, include words and phrases such as: tube - incubation tube, plant on tube - translate into ventilation, and the like.

There are languages that have profoundly developed terminological apparatus, besides the established terminology, there are also professional speeches - denoting the use of the non-normative form of special linguistic means that are associated with the terms. This phenomenon occurs for several reasons, namely psychological, psycholinguistic and proper linguistic [98-104]. Let us first consider the psychological reasons behind the speaker's assessment of the content of a statement. When a doctor tells his intern that instead of casting a plaster, he casts a drum, instead of stabbing an umbrella, it is not only a multifaceted means of expression, but also a validated assessment from which it follows that he did poorly. Psycholinguistic reasons for professional speech are due to the fact that we carry out different types of metaphorization and metonymization, which are out of use by norms. For example, the paramedic who hurt the injection is said to have been guided by a pillow (i.e. tired) [105-109].

The urge to save, to reduce forms, is the source of professional discourse, as a consequence of ellipses, for example, to make an electrocardiogram of the heart (ECG), doctors interpret this expression as making an ECG.

To give an example, the French acronym used in the context of laboratory diagnosis of cardiac abnormalities also comes from the English term fractional shortening. In translation, the abbreviation is deciphered and explained as a fractional abbreviation. In addition, it is supplemented with a borrowed acronym of the English-born FS.

E2D (echocardiographie bidimensionnelle) is Echo (2D) two-dimensional echocardiography (DAA) is a method that allows to study both the anatomical structure of the valve and the assessment of how the effect of valve dysfunction on the degree of overload of the heart chambers.

First of all, the phenomenon of synonymy is present in both the special and the common vocabulary. There is no single understanding of synonymy in the linguistic literature. Some scholars have argued that synonymy is unacceptable for terminology.

They consider the term as a semantic and semiotic phenomenon, and refers to the fact that there are no precise and rigid boundaries between the term systems, which is

why to analyze objectivity, systematicity and normality as the main features of terms is necessary only in the correlation of linguistic and non-linguistic factors of the development of lexical units in the system of lexical units. It should also be noted that the process of fluctuation in vocabulary is paramount, it is this vocabulary that is carried through periodic changes and fluctuations from different stylistic spheres, from common vocabulary to terminology, hence terminology and determinology [110].

In the process of terminology, the lexical unit gets the meaning of a certain statement in a certain system of concepts. The following terminologies may be included in the terminology [111-115]:

- Words of common vocabulary: for example, the word fatigue (denotes the psychological state of a person) is now systematized as a technical term - metal fatigue, shock fatigue;
- Quasi-terms: terms that absorb elements from a variety of spheres, such as medical and science fiction monster virus (both computer and non-computer).

Analyzing the composition of medicines on the example of medical instructions, we can summarize that there are three groups [116]. The first group is characterized by its vocabulary composition, in addition the statement contains only chemical terms, such as: aluminum acetate acetate - aluminum acetoacetate; cimetidine - cimetidine.

- Professional discourse;
- Expressions from other terminology, for example, wave (in optics - in hydraulics), virus (in cybernetics - in medicine);
- Nomenclature units are referred to as words denoting specific objects of science or technology, such as Sirius-2H, which is a device for the diagnosis of the vessels of the head;
- Proper names and diseases, which have been named scientists and have become terms, for example, Down syndrome - Downism, Parkinson's disease - Parkinson's disease.

In English, the type of medical discourse that has no clear boundaries in social communication was studied [117-125]. Concerning pharmacological texts, the lexical and structural features of translation, covering the interpretation of medical terminology of instructions by all participants in the process, are appropriate, for example: doctor - patient, pharmacist - patient, pharmacist - doctor. The preparation of medical instructions includes three specifications: 1) the first contains in its vocabulary only chemical terms, for example: *нізатадин* (nizatidine); 2) the second specification includes only common vocabulary, for example: *глюкоза* (glucose), *сахароза* (sucros), *евкаліптова олія* (eucalyptus oil); 3) the third feature consists of both common words and chemical terminology, such as: *стрептоцид розчинний* (streptocide soluble). The most productive for the vocabulary of modern medicine is the use of eponyms, that is, the name of a phenomenon (such as a disease), after the name of the scientist who first discovered or outlined it, such as *хвороба Мен'єра* (*Meniere disease*), *хвороба Боткіна* (*Botkin disease*), *хвороба Паркінсона* (*Parkinson disease*).

There is also a productive model, which contains two-component terminological conjunctions formed from first and last names, for example *хвороба Лайма* (*Lyme*

disease), реакція Яріша-Херкшеймера (*Jarisch-Herksheymer reaction*), тест Кумбса (*Coombs' test*), синдром Стівенса-Джонсона (*Stevens-Johnson syndrome*).

Examples of eponymic French terms: укр. хвороба Адена - French *Maladie d'Adie*, *Maladie d'Alexander*, *Maladie de Economo*, *Maladie de Baehr-Schiffrin*, *Maladie de Beck-Ibrahim*, *Maladie de Besnier-Boeck-Schaumann*.

Common layer contains prefixes укр. протягом - eng. during, without - without, through - through, pronoun (both), conjunction (however), verb (to be, can, may, affect, spent, reduce, evaluate); adverbs (often, infrequently, rarely, very rarely).

Common scientific words are implemented, for example: reconfigure, overpredict, documented, appropriate, recommend, second-source, reported, routinely.

Note that there are false friends of the translator. Through medical texts, they reveal peculiar qualitative traits, for example: potent pathogen is not a "potent" but "potent" pathogen; angina is not angina, but angina. The instructions for the medicines also included formulas, for example: C₂₁H₄₅N₃ - hexetidine. It is worth noting that prefixes carry a semantic load, so they formulate the meaning of terms to some extent.

The term "many" and "magnification" concepts include the super-, hyper- (hyper-sensitivity) prefixes. Effective for the creation of the names of drugs are suffixes indicating the belonging of the drug to a fixed group by their function:

1. -er, -or, -an are used to form nouns denoting specialists, for example: doctor, physician;
2. -ist, -ant are used to form nouns that call specialists: chemist - chemist; pharmacist;
3. -ing, -ment express the processes, for example: swelling - itching, breathing or swallowing - breathing or swallowing, curing - holding; replacement - treatment; treatment;
4. -ion, -ance, -ence, -ship, -hood, -ure, -ness express mainly abstract concepts of action, condition, phenomenon: medication - application, experience - experience, pressure - pressure, failure - failure, faintness - fainting.

Two-component terms are presented in medical terminology in two varieties: 1) substantive-substantive, for example: brainstem - absorption layer - absorption layer; 2) Substantive adjectives, for example: zygomatic arch - apical arch, junctional epithelium - butt epithelium. Often in the names of surgical diseases of the kidney, the name of the organ is put in the plural, namely: kidney stones, kidney tumors; in these diseases, in most patients, the disease initially originates in one of the kidneys. Therefore, it is assumed that in the names of these diseases use the name of the organ in the singular: kidney stones, kidney tumor, kidney tuberculosis - kidney (but not kidney) disease. Amplifying adverbs do not agree with the nomination idea, for example: completely, substantially, substantially, perfectly, positively, reasonably, and infrequently - infrequently. The study of the instructions did not capture the words-realities, idioms, clericals, clichés, phraseologisms that may be present in the medical language. This fact indicates that the medical instructions of drugs are first and foremost accurate and unambiguous.

It should be noted that transliteration is of interest when translating proper names. Due to the fact that the phonetic and graphic systems of languages are completely different from each other, the transfer of the word form of the original language to the

language of translation is always temporary and approximate, for example: Coombs' test - Coombs test; Stevens-Johnson syndrome - Stevens-Johnson syndrome.

During the translation of medical terminological abbreviations, there was a transcription of the English acronym for example: IGF (insulin-like growth factors), as well as translation into Ukrainian and the formation of abbreviations from the Ukrainian designation, for example: nonsteroidal anti-inflammatory drug NSA - Nonsteroidal anti-inflammatory drugs NSAIDs. Descriptive translation is used when the terminology unit does not have a Ukrainian-language counterpart, and is not even taken over by calculation or transcription. The sources of semantic equivalence in terminology, according to many scholars, may be:

- meta-dialects of different scientific schools and dialect of individual researchers;
- modification of the form of the term;
- application in the nomination of different aspects of one object;
- simultaneous borrowing of two equivalent terms;
- presence of official and colloquial terms;
- existence of modern and outdated terms;
- existence of full and short variants.

It is believed that synonymous relations in medical terminology differ from other terminological systems by the specificity of the fact that the subject of medicine is only partially subject to typology and association. Given the huge number of synonymous terms, the level of synonymy may be different. This is due to the differential synonymy function. Semantic relationships cannot exist without antonyms. According to empirical studies, antonymy in medical terminology is represented much better than in the common language. Such a phenomenon is interpreted by the fact that contrary statements do exist in science, and the contradiction of concepts is part of the scientific understanding of objects. It is worth noting that the prefixes are semantic load, so partially determine the meaning of the term. The term "many" and "magnification" concepts include the super-, hyper- (hypersensitivity) prefixes.

Productive for the formation of the names of drugs are suffixes, indicating the affiliation of the drug to a specific group by their function.

English verbs of the passive state, depending on the lexical and syntactic features of the sentence form of the passive state of the verb-preposition of the English sentence are interpreted in several ways, to be distinguished into different forms of the Ukrainian verb: passive state, impersonal form of -no, -to, adjective, active state. For example, passive return "are not susceptible" is replaced by the following:

- participle insensitive;
- the verb of the passive state in the corresponding temporal form at a subtext in a two-fold sentence: Strepsils Original is also indicated;
- drugs used.

The passive infinitive in the modal verb sentence is certainly interpreted by the Ukrainian infinitive, for example: Zinnat should be taken after food for optimum absorption - For better absorption, the drug is recommended take after eating - modal

reversal is replaced by reverse verb and infinitive. Unless the English infinitive belongs to these functions and is not part of the infinitive, it generally does not cause translation problems. His possible Ukrainian counterparts are:

- infinitive (in various syntactic functions), for example: One lozenge to be dissolved - The lollipop must be dissolved before it is completely dissolved;
- verb: to release cefuroxime into the circulation - and into cefuroxime enters circulation - infinitive to release - replaced by verb enters.

It is worth noting that infrequently the English participle is interpreted by the Ukrainian participle, for example: including *Peptococcus* and *Peptostreptococcus* species - including *Peptococcus* and *Peptostreptococcus*.

Repeatedly, the adjective is translated by the personal form of the verb, and consequently the syntax of the sentence changes, for example: Hypersensitivity reactions including The adjective can be translated by the noun part of a compound sentence, for example: leading to convulsions - and, as a consequence, a court appearance.

Note the cases of grammatical transformation during the translation of gerund, such as when driving or operating machinery - grammatical transformation - gerund (which is not translated into Ukrainian due to an unspecified verb form).

During the translation, the English-language direct word order was transformed into the correct word order in Ukrainian, for example: Skin and soft-tissue infections - grammatical transformations - reordering words. Separate parts of the language were changed to syntax characters, or a graphic representation of a number, for example: for example changed to a colon (:), dash (-) is replaced; twice replaced by number 2; eg. - Latin abbreviation removed, changed to parentheses (bronchitis). Subheadings of certain English-language medical instructions are in the form of interrogative sentences, as opposed to Ukrainian ones, for example: What is Domiphen used for?; What is hexetidine used for? - Pharmacotherapeutic group, descriptive translation, subtitle used in all translations. Previously mentioned are the most common ways of translating terminological tumors such as: calculations, transliteration, replacement, and combinations thereof. For example, the French term *stimulate cardiaque* (nm) in the French medical literature is usually used to describe the heart or the pacemaker. However, there are different cases of its use in relation to other organs or tissues.

Due to the desire to develop a term concise and understandable to a wide range of specialists, traditional translation options are used. However, it should be noted that dictionaries often provide some of its synonyms, which can complicate the translation process. For example, you need to translate the phrase "root tooth". A number of dictionaries give the following variants of this phrase: *Dent de racine* (nm), *dent molaire* (nm), *molaire* (nm), *dent de joue* (nm). Often, the choice of translation option depends on the context. The following method of translating medical terms may include descriptive translation. It should be resorted to if a detailed interpretation of the term is required. Yes, doctors use scientific terms when communicating with their colleagues, and when communicating with patients who need to explain the details of their illness, they use a semi-professional vocabulary:

Ulcère de la stase veineuse (nm) - venous stasis ulcer (DAA).

4.2 Structural Features of Dental Terms

The medical macrosystem consists of a variety of layers that exhibit a subterminal system that provides plausible medical, biological, or pharmaceutical science. Despite this, each token is an element of the subterminal system for example anatomical, histological, surgical, therapeutic, and others. All systems reproduce the exact scientific classifications of the concepts ascribed in these teachings; however, terms from various subsystems, interactions with each other are contained in certain semantic implications and connections at the level of the macrosystem. Therefore, the dual direction of development is reflected: the distinction between the medical sciences, on the one hand, and their interdependence and association, on the other. The following subsystems are of paramount importance within the medicinal macroterminal system:

1. anatomical and histological nomenclature;
2. set of clinical, pathoanatomical and pathophysiological terminology;
3. pharmaceutical words.

In the future, our attention will be focused on the second subterminal system, in particular the clinical terminology of modern dental science. By structure, medical terms are classified into simple, complex and complex terms. Synthetic way of forming terms in adherence to the word base, most often represented by root morphemes, suffixes or prefixes. Analytical terms are elaborated as complex tokens formed as a result of syntagmatic word formation. Analytical models create neologisms.

It is worth clarifying what constitutes a multi-component term. According to recent studies, the terms, depending on the number of components and the nature of the relationships between them, are divided into two-component and multi-component.

In modern linguistics, multi-component expressions from different sides are defined as "long-term terminological compounds of a stable type with a substantive kernel and the number of full-value components of more than two". Being "decorated individually, semantically unanimous compounds", they try on a well-established stable lexical character, which demonstrates their importance and extraordinary weight in the vocabulary of the subterminal system of dentistry. Taking into account the existing definitions under multicomponent expression, it is necessary to understand the polyolex terminological grouping of a stable variety with the number of more than two full-value components, which are decorated separately. In this case, a part of a multicomponent term is a one-word utterance.

Multicomponent expressions denote complex structural and semantic formations because of the excellent combinations of their constituents. English-speaking multi-component words with a kind of left-hand deployment have dependent components that are located on the left-hand side of the main component, unlike Ukrainian multi-component expressions, which, by contrast, have a right-hand deployment. At this point, it is necessary to take into account the translation of such words.

One-, two- and three-component tokens are more frequently encountered in modern medical scientific text.

It is established that as the length of multicomponent expressions increases, the readiness for the accuracy of manifestations of a concept is reflected, because with the increase of the number of constituents in the term, the level of its polysemy equals.

In addition to addressing the uniqueness of tokens, there is certainly another: burdened with similar multicomponent expressions of scientific style text, which largely does not serve to translate the communicative function of the text. That is why polysemic expressions constantly determine the emergence of acronyms that continually highlight medical texts.

Direction to the abbreviation and intensification of abbreviations in the lexical system of empirical medical text is caused by the ability to express mature scientific statements in a concise form. For the most part, the acronyms available to competent professionals act entirely within one area of expertise, which is why their interpretation constantly creates considerable difficulty for the novice translator. Each system has a robust organization, that is, the structure of that system. The analysis of complex terms proves that prepositional meaning terminological expressions constantly prevail in medical scientific documents. They are born by combining the number of components and sometimes represent the difficulty of translation because of the large number of semantic relations between the components. In order to exacerbate the difficulty of translating such terms, a significant role is played by the ability to translate them into their native language. Previously, it was mentioned that all complex terms can be classified into two groups: two-component and multi-component.

Two-component terms are considered to be the most common, and their translation does not create exceptional difficulties in the case of excellent possession of one-component medical terms. In general, two-component words can be divided into two groups, each of which has a set of specific term-making models:

1. two-component expressions belonging to the first group (both components of the noun):
 - (a) noun + noun (water irrigator - wisdom tooth - wisdom tooth, wax carver - wax brush);
 - (b) noun + preposition + noun (islets of Langerhans - pancreatic islet, avulsion of a tooth - traumatic dislocation of the tooth, cusp of Carabelli - irregular point of exacerbation);
 - (c) noun's + noun (Korff's fibres - Corfu fibers, Kaposil's sarcoma - Jourdain's disease - Jourdain's disease);
 - (d) abbreviation + noun (GTR procedure - directional tissue regeneration procedure).
2. two-component words that are accepted in the second group (one part is noun and the other is attributive):
 - (a) adjective + noun (hairy leukoplakia - hairy leukoplakia, juvenile periodontitis - juvenile periodontitis, pyogenic granuloma - pyogenic granuloma);
 - (b) participle I + noun (releasing incision);
 - (c) participle II + noun (screw-retained restoration - balanced anesthesia - combined anesthesia).

It was noted that the interpretation of the mentioned word models does not give rise to specific problems. However, you should look at the noun + noun model because it

assigns divergent lexical translation techniques into Ukrainian. The first component of such a two-component term in English is the attribute. During a translation into Ukrainian, the first attribute part may be interpreted as follows:

- noun in the generic case (treatment outcome);
- adjective (contact point);
- a noun with a preposition (treatment response).

Forms of three-component expressions are used, the most frequently occurring being the following:

- noun + noun + noun - ivory matrix retainer - ivory matrix, baby bottle caries - caries in early childhood, Bach flower remedies Bach homeopathic remedies;
- noun + noun + noun + noun - root submergence of tooth - alveolar immersion of the tooth root;
- adjective + noun + noun - guided bone regeneration - directed bone regeneration;
- (noun + verb + end -ed) + noun - carrier-based obturation - sealing the channel with hot gutter on the media;
- (noun + verb + ending -ing) + noun - air-conditioning installation;
- (numerator + noun) + noun - three-quarter crown - half crown.

The four- and five-component word combinations are based on two- and three-component expression patterns that are combined in a variety of ways:

Adjective + Adjective + (Noun + Adjective + Noun) - Melanotic neuroectodermal tumor of infancy - Neuroectodermal melanoma of an infant.

Studying foreign literature in front of a number of professionals have problems related to the semantization of unfamiliar vocabulary. By semantising new unknown expressions of the vocabulary of dentistry, the term is derived on the basis of its internal structure or context. Knowledge of the meaning of term elements helps to semantize the word as a whole. The presence of a certain conceptual base and a broad outlook also stimulate the process of deriving meaning of terms.

In dentistry, the interpretation and translation of expressions is based on the ability to capture the term in general, taking into account the meaning of all its components.

To choose the same modification of the translation of the term, it is necessary to master the language intuition, dental terminology of their own language and to understand in the field of medicine in question. However, in our circumstances it is still worth having a certain level of knowledge in the dental sciences. This is very difficult to understand for a translator with philological skills, especially if the dental text clarifies a sufficiently specific topic. After all, the linguist-translator inevitably needs to use his work not only through reference medical literature, textbooks and manuals in the relevant field, specialized medical interpretative and translation dictionaries and Internet search engines, but also side by side with specialist specialists. This kind of translation activity is always a guarantee of excellent and equivalent translation.

For example, the criterion for the quality of the translation may be a correct and unambiguous judgment of the text in all elements by a specialist medical practitioner and his perception of the work, which was not translated but written in the original

language. The most difficult to interpret are multi-component terminological phrases, because they require the definition of internal semantic connections between the elements. Multiple terms can be differentiated into three groups by types of intercomponent communication:

- term-phrases characterized by sequential subordination, in which each element is leading in relation to the following: $A + B + B$, for example: oral mucosa diseases - a disease of the oral mucosa;
- parallel-link tokens, in which all parts are associated with practically the main word of the terminological expression: $(A + B + \dots + n) + D$, for example, occlusal vertical dimension - vertical inter-inclusive distance;
- expressions related to mixed-type inter-component communication: $(A + ((B + C) + D) + D$, for example: Nevoid Basal Cell Carcinoma Syndrome (NBCCS) - Gorlin-Goltz Syndrome, non-identified basal cell carcinoma.

It is clear that the mixed-type model may differ significantly. It should be noted that terms formed from five or more elements contain only mixed inter-component communication. Therefore, to interpret a multicomponent term that aggregates four, five, or more components, you must:

- place the inter-component links in terminological terms and highlight the major one-, two- or three-component terms in multi-component terms;
- reveal the main component - the core of the term and translate it;
- to interpret all the key expressions contained within the polycomponent term, contained in the main element related to semantic connectedness, based on the context and assessing the specific terminology of good medical science;
- translate a multicomponent expression (often the translation is performed from right to left, originating from the main component, coordinating with each other the previously executed translations of base units);
- verify the accuracy of the translation provided by dictionaries, reference books or the Internet search engines to ensure that such a term actually appears in the professional medical environment.

There are pharmaceutical terms with structural characteristics such as:

1. Unambiguous terms, for example: competitiveness, conclusion, and the like.
2. Terms with two components: storage conditions, drug interactions, product form, and more.
3. Words that are formed of three words, for example: registration of medicines, export of pharmaceuticals, drug testing.
4. The expressions are composed of four words: study of the basic cost of treatment, inspection of manufacturers of drugs, etc.
5. Expressions of five tokens, such as: National Register of Major Pharmaceutical Medicines and others.

In the structure of part of the terms are distinguished conjunctions and, and, prepositions from, with, to, relative, into, to. Of course, terms have a different number of word components. Here are some examples:

- sales and profits (noun in the nominative case + noun in the generic case + conjunction + noun in the case);
- marking and transportation of medicinal products (noun in the nominative case + conjunction + noun in the case of the genitive + adjective in the generic case + noun in the generic case);
- operations on acceptance of goods (noun in the nominative case + prefix + noun in the generic case + noun in the generic case);
- requirements for the product (noun in the nominative case + preposition + noun in the generic case);
- quality requirements (noun in the nominative case+preposition+noun in the generic case);
- equivalence requirements (noun in nominative case+noun+noun in generic case);
- gender policy in pharmacy (adjective + noun in the nominative case + adjective + noun in the dative case);
- documentation for the drug (noun + prefix + noun in the original case).

There are cases of six-component terms, for example, the incidence of adverse drug reactions. Structurally, the aforementioned terms are very varied, most often the terms are phrases. The phrase structure also differs in word phrases. There is a significant percentage of two- and three-component word phrases, much less than four-component, single cases of five- and six-component terms occur. It is believed that there is a small number of monosyllabic terms within the two thematic groups selected for analysis, and there is a tendency for an “increase in multicomponent terms”.

It is possible to mention separately the terms-phrases with nouns and prepositions. In these cases, almost every such term has its own structural model. The manuscripts contain a wealth of knowledge in herbal medicine, pharmaceuticals and folklore. They are a bundle of information on philology, linguistics, lexicography and related fields. The trend towards neologization in the medical field is rapidly spreading. Thus, the scientist V. Sokolov adds that the English language of the field of medicine and health care is developing and progressing due not only to the names of instruments, procedures, diagnoses, types of therapy, but also to key changes in the most proportionate scheme of the provision of medical services in English-speaking countries. With the advent of internationalized linguistic names to signify the impact of telecommunications technologies on health care, organizational restructuring of the healthcare sector and its institutions, financial instruments (insurance, additional medical services, etc.) that are actively used in the field of medicine and health care health, ethical issues of modern medicine. The tumors of English in the fields of medicine and health care make a significant contribution to enriching the vocabulary of modern English. It should be noted that the emergence of information technology, the emergence of new diseases, syndromes, symptoms and methods of their treatment affect the emergence of new lexical inscriptions to the instructions for drugs, as well as for the exchange of medical information in the field of health care.

By structure, medical terms are divided into simple, complex and complex terms. Synthetic way to create terms is to attach to the base word, often represented by a root morpheme, suffixes or prefixes. Analytical terms are regarded as complex tokens that arose from syntagmatic word formation. Analytical models create neologisms.

Antonymic and synonymous relations are manifested in both unambiguous and ambiguous terms. The sources of synonymy in medical terminology are: functioning of dialect, word-forming synonyms, presence of professionalisms, obsolete words, eponyms and borrowed terms, variation of the form of the term.

The trend towards neologization in the medical field is rapidly spreading. Yes, the medical and healthcare English is evolving and progressing not only with the names of tools, procedures, diagnoses, types of therapy, but also with key changes in the most proportionate delivery of healthcare services in English-speaking countries. With the advent of internationalized linguistic names to signify the impact of telecommunications technologies on health care, organizational restructuring of the healthcare sector and its institutions, financial instruments (insurance, additional medical services, etc.) that are actively used in the field of medicine and health care health, ethical issues of modern medicine. The tumors of English in the fields of medicine and health care make a significant contribution to enriching the vocabulary of modern English. It should be noted that the emergence of information technology, the emergence of new diseases, syndromes, symptoms and methods of their treatment affect the emergence of new lexical inscriptions to the instructions for drugs, as well as for the exchange of medical information in the field of health care.

5 Conclusions

Medicine is a science in which accuracy plays a huge role. Adequate interpretation of a medical term and its translation into another language may depend on a person's life and health. Therefore, medical translation does not allow for errors. Some medical terms that have one source of origin and, at first glance, do not differ in form, have different meanings in different languages and even contexts. They may vary to a greater or lesser extent. In such cases, the translator must be able to understand the "trickery" of the translation and seek medical advice or specialized reference materials for advice. In other words, without a deep knowledge of medicine, it is quite difficult and often impossible to perform adequate and absolutely equivalent translation. It is known that the functional purpose of any term is to summarize the scientific concept in a concise, precise and unambiguous manner. For the successful implementation of all its functions, the term must have certain characteristics and meet certain requirements: systematic; the tendency for uniqueness within the terminological field; lack of expression; accurate definition; stylistic neutrality [8, p. 12].

The main features of the term are: 1) a systematic approach to the correspondence between content and form; 2) the presence of a definition; 3) brevity and conformity of the concept; 4) conventionality; 5) stylistic neutrality; 6) attraction of a certain branch of the system; 7) compliance with language standards; 8) derivative capacity; 9) invariance; 10) information. During the translation of medical terminology from English into Ukrainian, it is necessary to comply with the requirements in order to ensure an adequate and equivalent translation of the medical term. For a number of compelling reasons, it is not possible to fully comply with the deadlines. The problem of the polysemy of terms is the cause of difficulties in the implementation of these

requirements. The scientist I. Borysyuk thinks that for any term-system the condition when one term corresponds to a particular term is ideal, because it is the regulated correlation of the name and the reality that avoids possible misunderstandings.

The analysis of the vocabulary of dental terminology, scientific articles, periodical medical journals, monographs and descriptions of clinical cases suggests that the main corpus of medical, in particular the dental terminological system, has already been formed, but requires significant ordering and standardization. The subject of our attention is the linguistic problem of improving the terminology of dentistry, its practical implementation, which we treat as a whole set of works on systematization, codification, harmonization, unification and standardization, as well as normalization of terminology, ie revision of the terminology in accordance with the norms of the Ukrainian language. The purpose of normalization of the dental term system is to bring it into line with those speech or lexical models that best contribute to the implementation of all functions of the term, including communicative. The processes of normalization of terminological vocabulary are mostly based on the norms of the literary language. However, we are dealing with special vocabulary, so the scope of such rules is somewhat narrowed. VP Danilenko, emphasizing the specifics of defining the notion of a norm in terms of terminology, identifies a "professional version of the norm", which must nevertheless correspond to the general tendencies of the development of word formation and word usage in the whole language. Thus, medical terminology is a macroterminal system, and its content is quite diverse: human diseases and pathologies, pathogens and vectors of diseases, methods of diagnostics, prevention and therapeutic treatment of diseases, syndromes and symptoms, surgical operations, devices, instruments, medical equipment medicines and more. Based on English-language medical terminology material translated into Ukrainian by the instructions of medical products, the study is part of the development of an adequate translation of the vocabulary of medical instruction in the field of medicine and health care. The instructions for use of medicinal products have two groups of addressees: specialists (doctors) and non-specialists (patients, the general public). On the example of translation of the English-language instruction of a medical preparation many cases of translation transformations were recorded. This indicates a sufficient number of lexical and grammatical correspondences of the Ukrainian language; however, at the same time, there is a discrepancy between the structure of English-language texts of medical preparations and the structure of Ukrainian-language approved by the Ministry of Health of Ukraine. It is worth noting that the study of features of translation of medical terminology makes it possible to improve the process of learning medical terminology in general, in particular during the study of English language by specialty, medicine and pharmacy by specialty, for the compilation of directories and dictionaries of medical preparations, which generally contributes to the development of communication in medical and promoting a healthy lifestyle. Research materials can be used by translators, teachers, linguists, and media. Samolisova and A. Nikolaev state that "the professional terminology should be unified and brought to the user in a form that would require the least effort in use" [7, p. 203]. Medicine is out of place, there are new methods of diagnostics of diseases, unconventional methods of their treatment, so there is a need to create new terms and to harmonize their grammatical

structure. Medical terminology is a common concern of both physicians and linguists. Let's also work on creating a unified medical nomenclature.

References

1. Anisimova, A.H.: Metodolohiya perekladu anhlomovnykh terminiv humanitarnykh i suspil'no-politychnykh nauk : PhD thesis, Moscow, Russian. (2010)
2. Vit, Yu.V.: Terminolohiya i yiyi mistse v movi. In: Int. Conf. z pytan' metodyky vykladannya inozemnoyi movy, pam'yati profesora V.L. Skalkina, 258–263. (2005)
3. Dodonova, N.Ye.: Anhlo-rosiys'ki vidpovidnyky v aktsentno-rytmichniy realizatsiyi bahatokomponentnykh terminiv : PhD thesis, P'yatyhors'k, Russian. (2000)
4. Dev'yatko, Yu.S.: Bahatokomponentni stomatolohichni terminy: strukturnyy analiz ta trudnoshchi anhlo-ukrayins'koho perekladu, <https://naub.oa.edu.ua>, accessed 2019/11/27.
5. Drozdova, T.V.: Typy i osoblyvosti bahatokomponentnykh terminiv v suchasniy anhliys'kiy movi: PhD thesis, Moscow, Russian. (1989)
6. Yeshchenko, T.A.: Medychnyy termin yak zasib leksychnoho vyrazhennya tekstovoyi katehoriyi «informatyvnist'», Lviv, Ukraine. (2018)
7. Koval, I., Kukhar, L.I.: V. Problemy slovotvoru ta terminolohiyi. In: Lihvistychni ta metodychni problemy navchannya movi yak inozemniy. (2000)
8. Kudinova, T.A.: Pytannya pro pryrodu bahatokomponentnoho termina (na prykladi biotekhnolohiy anhliys'koyi movy). In: Visnyk Perms'koho universytetu, 58-64. (2001)
9. Kudryavtseva, I.H.: Osoblyvosti formal'noyi struktury i semantychni kharakterystyky teminolohichnykh slovospoluchen' (na materialy anhliys'koyi ta rosiys'koyi spetsial'noyi leksyky naukovo-tekhnichnoyi haluzi «Internet»): PhD thesis, Moscow, Russian. (2010)
10. Kosenko, A.V.: Osnovni kharakterystyky anhliys'koyi medychnoyi terminolohiyi. In: Nauk. Visn. Mizhnar. Humanit. un-tu, 68-70.(2015)
11. Kysil, D.O., Perkhach, R.T.: Strukturni ta semantychni osoblyvosti stomatolohichnykh terminiv. In: Molodyy vchenyy, 183-185. (2019)
12. Kysil, D.O.: Strukturni ta semantychni osoblyvosti stomatolohichnykh terminiv. In: Vydavnytstvo Natsional'noho Universytetu «L'vivs'ka Politekhnik», 17-18. (2019)
13. Leshchenko, T.O.: Terminy v stomatolohiyi: imennyky cholovichoho rodu druhoyi vidminy v rodovomu vidminku odnyy. In: Vyshchyy derzhavnyy navchal'nyy zaklad Ukrainy «Ukrayins'ka medychna stomatolohichna akademiya». (2017)
14. Leshchenko, T.O., Sharbenko, T.V., Pavlenkova, O.S.: Unormovanist' terminiv terapevtychnoyi stomatolohiyi. In: Ukrayins'kyy stomatolohichnyy al'manakh, 100-107. (2014)
15. Leshchenko, T.O.: Unormovanist' terminiv z ortopedychnoyi stomatolohiyi. In: Ukrayins'kyy stomatolohichnyy al'manakh, 93–99. (2012)
16. Lytvynenko, N.P., Misnyk, N.V.: Terminolohichni problemy v noviy navchal'niy literaturi medychnoho profilyu. In: Filolohichni doslidzhennya, 114-121. (2014)
17. Leshchenko, T.O.: Movno-zhanrova spetsyfika naukovoyi statti zi stomatolohiyi yak tsilisnoho naukovooho tvor. In: Ukrayins'kyy stomatolohichnyy al'manakh, 3-11. (2012)
18. Lytvynenko, N.P.: Suchasnyy ukrayins'kyy medychnyy diskurs : PhD thesis, Kyyiv, Ukraine. (2010)
19. Manyuk, O.M.: Do problemy perekladu suchasnykh stomatolohichnykh terminiv. In: Bukovyns'kyy medychnyy visnyk, 170-172. (2010)
20. Misnyk, M.: Medychnyy slovnyk yak osnovne dzherelo systematyzatsiyi ta unormuvannya haluzevoyi terminolohiyi. In: Ukrayinska terminolohiya i suchasnist, 197-199. (1997)

21. Misnyk, N., Symonenko, L.: Pro «stan zdorov"ya» movy medytsyny. In: Visnyk Natsional'noho universytetu «L'vivs'ka politehnika», 262-269. (2002)
22. Perkhach, R.-Yu.T.: Skorochnyya yak zasib formuvannya medychnoyi terminolohiyi (na materialy nimets'komovnykh ta ukrayinomovnykh instruktsiy dlya medychnoho zastosuvannya preparatu). In: Problemy zistavnoyi semantyky, 232–237. (2013)
23. Perkhach, R.-Yu.T.: Korpus instruktsiy do medychnykh preparativ yak metod doslidzhennya medychnoyi terminolohiyi. In: Filolohichni studiyi. Naukovyy visnyk Kryvoriz'koho derzhavnogo pedahohichnoho universytetu, 171–175. (2015)
24. Perkhach, R.-Yu.T.: Etapy rozvytku termina i terminosystemy u medytsyni ta farmatsiyi. In: Naukovi zapysky Natsional'noho universytetu «Ostroz'ka akademiya». Seriya : Filolohichna, 145-147. (2014)
25. Pertsev, I.: Pro znachennya farmatsevychnykh terminiv u s'ohodenni. In: Visnyk farmatsiyi, 1–2, 23-27. (1993)
26. Samolysova, O., Nikolayeva, A.: Ponyattya «terminolohiya» ta deyaki aspekty ukrayins'koho medychnoho terminotvorennya. In:Ukrayins'ka terminolohiya i suchasnist. Vydavnytstvo KNEU, Kyiv, Ukraine, 201-204. (2005)
27. Syzonov, D.Yu.: Deryvatsiynyy potentsial antonimiyi v aktyvnykh semantychnykh protsesakh suchasnoyi medychnoyi terminolohiyi. In: Movni i kontseptual'ni kartyny svitu. 43(4), 63-69. (2013)
28. Syzonov, D.Yu.: Funktsional'no-styl'ovi parametry medychnoyi terminolohiyi. In: Linhvistychni studiyi, 22, 312-317. (2011)
29. Snitovs'ka, O.Y.: Medychna terminolohiya anhlomovnykh tekstiv instruktsiy medychnykh preparativ ta vidtvorennya yiyi v ukrayins'kykh perekladakh. In: Zapysky z romanhernmans'koyi filolohiyi, 2(39), 108-117. (2017)
30. Stanivchuk, V.V.: Strukturno-semantychni osoblyvosti farmatsevychnykh tekstiv-instruktsiy. In: Naukovyy chasopys Natsional'noho pedahohichnoho universytetu imeni M. P. Drahomanova, 7, 230-234. (2011)
31. Tkach, A.V.: Imennykove osnovo- ta slovoskladannya v systemi ukrayins'kykh medychnykh terminiv. In: Naukovyy visnyk Chernivetskoho universytetu, 721, 72-75. (2014)
32. Tkach, A.V.: Kul'tura fakhovoho movlennya – vazhlyvyi pokaznyk profesiohrany maybutn'oho medychnoho pratsivnyka. In: Naukovyy visnyk Chernivets'koho universytetu, Romano-slov'yans'kyi dyskurs, 761, 80-83. (2015)
33. Tkach, A.V.: Medychni terminy-slovospoluchennya: struktura ta osoblyvosti funktsionuvannya. In: Movoznavchyy visnyk, 18, 102-107. (2014)
34. Tkach, A.V.: Prykmetnykovi slovospoluchennya terminolohichnoho kharakteru v suchasniy movi medytsyny. In: Filolohichni studiyi, 6, 463-468. (2011)
35. Tkach, A.V.: Pryntsypy orhanizatsiyi ukrayins'koyi medychnoyi terminolohiyi na leksyko-semantychnomu rivni. In: Filolohichni studiyi, 13, 218-224. (2015)
36. Tkach, A.V.: Slovospoluchennya terminolohichnoho kharakteru v ukrayins'kiy medychniy terminosystemi. In: Aktual'ni pytannya suspil'nykh nauk ta istoriyi medytsyny, 3(15), 30-33. (2017)
37. Tkach, A.V.: Slovtvirna produktyvnist' prefiksiv zi znachennyam protylezhnosti u formuvanni medychnykh terminiv ta terminolohizovanykh sliv. In: Aktual'ni pytannya suspil'nykh nauk ta istoriyi medytsyny, 4, 80-84. (2015)
38. Tkach, A.V.: Slovtvirno identychni sufiksy u systemi terminotvorennya (poznachennya osoby za profesiynoyu diyal'nistyu). In: Aktual'ni pytannya suspil'nykh nauk ta istoriyi medytsyny, 1, 59-63. (2016)
39. Terlets'ka, I.M., Kobyl'chenko, M.O., Shekera, N.S.: Osoblyvosti suchasnoyi medychnoyi terminolohiyi. In: Suchasni doslidzhennya z inozemnoyi filolohiyi, 291-298. (2012)

40. Chernykh, V.P.: Farmatsevychna entsyklopediya, Kyiv: «MORION», Ukraine. (2005)
41. Khyrivs'ka, H.P.: Eponimy v ukrayins'kiy farmatsevychniy terminolohiyi. In: Terminolohichnyy visnyk, 3(2), 110-116. (2015)
42. Khyrivs'ka, H.P.: Tematychna klasyfikatsiya ukrayins'koyi farmatsevychnoyi terminolohiyi. In: Visnyk Natsional'noho universytetu «L'vivs'ka politekhnik», 890, 70-74. (2018)
43. Khyrivs'ka, H.P.: Terminy farmaekonomiky ta farmatsevychnoho terminoznavstva yak tematychni hrupy farmatsevychnoyi terminolohiyi. In: Visnyk Natsional'noho universytetu «L'vivs'ka politekhnik», 869, 82–85. (2017)
44. Tsisar, N.: Metonimichni transpozysiyi u medychniy terminosystemi. In: Visnyk Natsional'noho universytetu «L'vivs'ka Politekhnik», 593, 53-56. (2007)
45. Shalayeva, H.: Strukturnyy analiz suchasnoyi medychnoyi terminolohiyi ta trudnoshchi perekladu bahatokomponentnykh medychnykh terminiv. In: APSNIM, 1(1), 90. (2014)
46. Yukalo, V.Ya.: Movni stereotypy v komunikatsiyakh likarya : PhD thesis, Ukraine. (2003)
47. Amal, J.: Une méthodologie de la traduction médicale, Les Presses de l'Université de Montréal. (2015)
48. Analysis of a Medical Translation, School of Humanities Translation program, <http://lnu.diva-portal.org/smash/get/diva2:206300/FULLTEXT01>, accessed 2019/11/27.
49. Grabowski, Ł.: Keywords and lexical bundles within English pharmaceutical discourse: A corpus-driven description. (2018)
50. Kasprowicz, M.: Handling Abbreviations and Acronyms in Medical Translation, <https://www.translationdirectory.com/articles/article2188.php>, last accessed 2019/11/27.
51. Translation Journal, <http://translationjournal.net/journal/52abbreviations.htm>, last accessed 2019/11/27.
52. Science Medicine, <https://www.sciencemag.org/site/marketing/stm/definition.xhtml>, last accessed 2019/11/27.
53. Regulatory documents of the Ministry of Health of Ukraine, <http://mozdocs.kiev.ua>, last accessed 2019/11/27.
54. Datapharm Ltd, <https://medicines.org.uk>, last accessed 2019/11/27.
55. Drugs and medications information, <https://sdrugs.com>, last accessed 2019/11/27.
56. Everyday Health, Inc., <https://everydayhealth.com>, last accessed 2019/11/27.
57. Information on pharmacy, <https://gmedication.com>, last accessed 2019/11/27.
58. Newsletters for the latest medication news, alerts, new drug approvals and more, <https://www.drugs.com/search.php?searchterm=epinephrine&a=1>, accessed 2019/11/27.
59. PharmacyGeoff, <https://pharmacygeoff.md>, last accessed 2019/11/27.
60. Updated list of branded and generic drugs, <https://ndrugs.com>, last accessed 2019/11/27.
61. WebMD LLC, <https://webmd.com>, last accessed 2019/11/27.
62. Vysotska, V., Lytvyn, V., Burov, Y., Gozhyj, A., Makara, S.: The consolidated information web-resource about pharmacy networks in city. In: CEUR Workshop Proceedings, 239-255 (2018)
63. Lytvyn, V., Vysotska, V., Demchuk, A., Demkiv, I., Ukhanska, O., Hladun, V., Kovalchuk, R., Petruchenko, O., Dzyubyk, L., Sokulska, N.: Design of the architecture of an intelligent system for distributing commercial content in the internet space based on SEO-technologies, neural networks, and Machine Learning. In: Eastern-European Journal of Enterprise Technologies, 2(2-98), 15-34. (2019)
64. Lytvyn, V., Vysotska, V., Burov, Y., Veres, O., Rishnyak, I.: The Contextual Search Method Based on Domain Thesaurus. In: Advances in Intelligent Systems and Computing, 689, 310-319. (2018)
65. Vysotska, V., Chyrun, L.: Analysis features of information resources processing. In: Computer Science and Information Technologies. In: Int. Conf. CSIT, 124-128. (2015)

66. Vysotska, V., Chyrun, L., Chyrun, L.: Information Technology of Processing Information Resources in Electronic Content Commerce Systems. In: Computer Science and Information Technologies, CSIT'2016, 212-222. (2016)
67. Vysotska, V., Chyrun, L.: Methods of information resources processing in electronic content commerce systems. In: Proceedings of 13th International Conference: The Experience of Designing and Application of CAD Systems in Microelectronics, CADSM. (2015)
68. Naum, O., Chyrun, L., Kanishcheva, O., Vysotska, V.: Intellectual System Design for Content Formation. In: Computer Science and Information Technologies, Proc. of the Int. Conf. CSIT, 131-138. (2017)
69. Vysotska, V.: Linguistic Analysis of Textual Commercial Content for Information Resources Processing. In: Modern Problems of Radio Engineering, Telecommunications and Computer Science, TCSET'2016, 709-713 (2016)
70. Su, J., Vysotska, V., Sachenko, A., Lytvyn, V., Burov, Y.: Information resources processing using linguistic analysis of textual content. In: Intelligent Data Acquisition and Advanced Computing Systems Technology and Applications, Romania, 573-578. (2017)
71. Su, J., Sachenko, A., Lytvyn, V., Vysotska, V., Dosyn, D.: Model of Touristic Information Resources Integration According to User Needs. In: International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT, 113-116 (2018)
72. Kanishcheva, O., Vysotska, V., Chyrun, L., Gozhyj, A.: Method of Integration and Content Management of the Information Resources Network. In: Advances in Intelligent Systems and Computing, 689, Springer, 204-216 (2018)
73. Lytvyn, V., Vysotska, V., Pukach, P., Vovk, M., Ugryn, D.: Method of functioning of intelligent agents, designed to solve action planning problems based on ontological approach. In: Eastern-European Journal of Enterprise Technologies, 3/2(87), 11-17 (2017)
74. Vysotska, V., Lytvyn, V., Burov, Y., Berezin, P., Emmerich, M., Fernandes, V. B.: Development of Information System for Textual Content Categorizing Based on Ontology. In: CEUR Workshop Proceedings, Vol-2362, 53-70. (2019)
75. Lytvyn, V., Vysotska, V., Rusyn, B., Pohreliuk, L., Berezin, P., Naum O.: Textual Content Categorizing Technology Development Based on Ontology. In: CEUR Workshop Proceedings, Vol-2386, 234-254. (2019)
76. Sachenko, S., Rippa, S., Krupka, Y.: Pre-Conditions of Ontological Approaches Application for Knowledge Management in Accounting. In: IEEE International Workshop on Antelligent Data Acquisition and Advanced Computing Systems: Technology and Applications, Rende (Cozenza), Italy, 605-608. (2009)
77. Lytvyn, V., Vysotska, V., Dosyn, D., Burov, Y.: Method for ontology content and structure optimization, provided by a weighted conceptual graph. In: Webology, 15(2), 66-85 (2018)
78. Lytvyn, V., Vysotska, V., Dosyn, D., Lozynska, O., Oborska, O.: Methods of Building Intelligent Decision Support Systems Based on Adaptive Ontology. In: International Conference on Data Stream Mining and Processing, DSMP, 145-150. (2018)
79. Lytvyn, V., Vysotska, V., Veres, O., Rishnyak, I., Rishnyak, H.: Classification methods of text documents using ontology based approach. In: Advances in Intelligent Systems and Computing, 512, 229-240. (2017).
80. Burov, Y., Vysotska, V., Kravets, P.: Ontological approach to plot analysis and modeling. In: CEUR Workshop Proceedings, Vol-2362, 22-31. (2019)
81. Lytvyn, V., Vysotska, V., Burov, Y., Demchuk, A.: Architectural ontology designed for intellectual analysis of e-tourism resources. In: International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT, 335-338 (2018)

82. Lytvyn, V., Burov, Y., Kravets, P., Vysotska, V., Demchuk, A., Berko, A., Ryschkovets, Y., Shcherbak, S., Naum, O.: Methods and Models of Intellectual Processing of Texts for Building Ontologies of Software for Medical Terms Identification in Content Classification. In: CEUR Workshop Proceedings, Vol-2362, 354-368. (2019)
83. Kravets, P., Burov, Y., Lytvyn, V., Vysotska, V.: Gaming method of ontology clusterization. In: Webology, 16(1), 55-76. (2019)
84. Shu, C., Dosyn, D., Lytvyn, V., Vysotska V., Sachenko, A., Jun, S.: Building of the Predicate Recognition System for the NLP Ontology Learning Module. In: International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications, IDAACS, 2, 802-808. (2019)
85. Alieksieieva, K., Berko, A., Vysotska, V.: Technology of commercial web-resource processing. In: Proceedings of 13th International Conference: The Experience of Designing and Application of CAD Systems in Microelectronics, CADSM 2015-February. (2015)
86. Lytvyn, V., Vysotska, V., Uhryn, D., Hrendus, M., Naum, O.: Analysis of statistical methods for stable combinations determination of keywords identification. In: Eastern-European Journal of Enterprise Technologies, 2/2(92), 23-37. (2018)
87. Vysotska, V., Hasko, R., Kuchkovskiy, V.: Process analysis in electronic content commerce system. In: Proceedings of the International Conference on Computer Sciences and Information Technologies, CSIT, 120-123. (2015)
88. Khomytska, I., Teslyuk, V., Holovatyy, A., Morushko, O.: Development of methods, models, and means for the author attribution of a text. In: Eastern-European Journal of Enterprise Technologies, 3(2-93), 41-46. (2018)
89. Khomytska, I., Teslyuk, V.: Authorship and Style Attribution by Statistical Methods of Style Differentiation on the Phonological Level. In: Advances in Intelligent Systems and Computing III. AISC 871, Springer, 105-118. (2019)
90. Korobchinsky, M., Vysotska, V., Chyrun, L., Chyrun, L.: Peculiarities of Content Forming and Analysis in Internet Newspaper Covering Music News, In: Computer Science and Information Technologies, Proc. of the Int. Conf. CSIT, 52-57. (2017)
91. Lytvyn, V., Sharonova, N., Hamon, T., Vysotska, V., Grabar, N., Kowalska-Styczen, A.: Computational linguistics and intelligent systems. In: CEUR Workshop Proceedings, Vol-2136. (2018)
92. Gozhyj, A., Kalinina, I., Vysotska, V., Gozhyj, V.: The method of web-resources management under conditions of uncertainty based on fuzzy logic. In: 13th International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT. 343-346. (2018)
93. Gozhyj, A., Vysotska, V., Yevseyeva, I., Kalinina, I., Gozhyj, V.: Web Resources Management Method Based on Intelligent Technologies. In: Advances in Intelligent Systems and Computing, 871, 206-221. (2019)
94. Vasyl, Lytvyn, Victoria, Vysotska, Dmytro, Dosyn, Roman, Holoschuk, Zoriana, Rybchak: Application of Sentence Parsing for Determining Keywords in Ukrainian Texts. In: Computer Science and Information Technologies, CSIT, 326-331. (2017)
95. Chyrun, L., Vysotska, V., Kis, I., Chyrun, L.: Content Analysis Method for Cut Formation of Human Psychological State. In: International Conference on Data Stream Mining and Processing, DSMP, 139-144. (2018)
96. Chyrun, L., Kis, I., Vysotska, V., Chyrun, L.: Content monitoring method for cut formation of person psychological state in social scoring. In: International Scientific and Technical Conference on Computer Sciences and Information Technologies, 106-112. (2018)

97. Lytvyn, V., Pukach, P., Bobyk, I., Vysotska, V.: The method of formation of the status of personality understanding based on the content analysis. In: *Eastern-European Journal of Enterprise Technologies*, 5/2(83), 4-12. (2016)
98. Lytvyn V., Vysotska V., Pukach P., Nytrebych Z., Demkiv I., Kovalchuk R., Huzyk N.: Development of the linguometric method for automatic identification of the author of text content based on statistical analysis of language diversity coefficients. In: *Eastern-European Journal of Enterprise Technologies*, 5(2), 16-28. (2018)
99. Lytvyn, V., Vysotska, V., Rzheuskyi, A.: Technology for the Psychological Portraits Formation of Social Networks Users for the IT Specialists Recruitment Based on Big Five, NLP and Big Data Analysis. In: *CEUR Workshop Proceedings*, 2392, 147-171. (2019)
100. Vysotska, V., Kanishcheva, O., Hlavcheva, Y.: Authorship Identification of the Scientific Text in Ukrainian with Using the Lingvometry Methods. In: *13th International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT*, 34-38. (2018)
101. Demchuk, A., Lytvyn, V., Vysotska, V., Dilai, M.: Methods and Means of Web Content Personalization for Commercial Information Products Distribution. In: *Advances in Intelligent Systems and Computing*, 1020, 332–347. (2020)
102. Vysotska, V., Lytvyn, V., Hrendus, M., Kubinska, S., Brodyak, O.: Method of textual information authorship analysis based on stylometry. In: *International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT*, 9-16. (2018)
103. Vysotska, V., Burov, Y., Lytvyn, V., Oleshek, O.: Automated Monitoring of Changes in Web Resources. In: *Advances in Intelligent Systems and Computing*, 1020, 348–363. (2020)
104. Lytvyn, V., Vysotska, V., Pukach, P., Nytrebych, Z., Demkiv, I., Senyk, A., Malanchuk, O., Sachenko, S., Kovalchuk, R., Huzyk, N.: Analysis of the developed quantitative method for automatic attribution of scientific and technical text content written in Ukrainian. In: *Eastern-European Journal of Enterprise Technologies*, 6(2-96), 19-31. (2018)
105. Vysotska, V., Fernandes, V.B., Lytvyn, V., Emmerich, M., Hrendus, M.: Method for Determining Linguometric Coefficient Dynamics of Ukrainian Text Content Authorship. In: *Advances in Intelligent Systems and Computing*, 871, 132-151. (2019)
106. Vysotska, V., Burov, Y., Lytvyn, V., Demchuk, A.: Defining Author's Style for Plagiarism Detection in Academic Environment. In: *International Conference on Data Stream Mining and Processing, DSMP*, 128-133. (2018)
107. Lytvyn, V., Vysotska, V., Burov, Y., Bobyk, I., Ohirko, O.: The linguometric approach for co-authoring author's style definition. In: *International Symposium on Wireless Systems within the International Conferences on Intelligent Data Acquisition and Advanced Computing Systems, IDAACS-SWS*, 29-34. (2018)
108. Lytvyn, V., Sharonova, N., Hamon, T., Cherednichenko, O., Grabar, N., Kowalska-Styczen, A., Vysotska, V.: Preface: Computational Linguistics and Intelligent Systems (COLINS-2019). In: *CEUR Workshop Proceedings*, Vol-2362. (2019)
109. Andrunyk, V., Chyrun, L., Vysotska, V.: Electronic content commerce system development. In: *Proceedings of 13th International Conference: The Experience of Designing and Application of CAD Systems in Microelectronics, CADSM 2015-February*. (2015)
110. Lytvyn V., Vysotska V., Peleshchak I., Basyuk T., Kovalchuk V., Kubinska S., Chyrun L., Rusyn B., Pohreliuk L., Salo T.: Identifying Textual Content Based on Thematic Analysis of Similar Texts in Big Data. In: *International Scientific and Technical Conference on Computer Science and Information Nechnologies (CSIT)*, 84-91. (2019)

111. Vysotska V., Lytvyn V., Kovalchuk V., Kubinska S., Dilai M., Rusyn B., Pohreliuk L., Chyrun L., Chyrun S., Brodyak O.: Method of Similar Textual Content Selection Based on Thematic Information Retrieval. In: International Scientific and Technical Conference on Computer Science and Information Nechnologies (CSIT), 1-6. (2019)
112. Antonyuk, N., Medykovskyy, M., Chyrun, L., Dverii, M., Oborska, O., Krylyshyn, M., Vysotsky, A., Tsiura, N., Naum, O.: Online Tourism System Development for Searching and Planning Trips with User's Requirements. In: Advances in Intelligent Systems and Computing IV, Springer Nature Switzerland AG 2020, 1080, 831-863. (2020)
113. Lozynska, O., Savchuk, V., Pasichnyk, V.: Individual Sign Translator Component of Tourist Information System. In: Advances in Intelligent Systems and Computing IV, Springer Nature Switzerland AG 2020, Springer, Cham, 1080, 593-601. (2020)
114. Rzheskyi, A., Kutjuk, O., Voloshyn, O., Kowalska-Styczen, A., Voloshyn, V., Chyrun, L., Chyrun, S., Peleshko, D., Rak, T.: The Intellectual System Development of Distant Competencies Analyzing for IT Recruitment. In: Advances in Intelligent Systems and Computing IV, Springer, Cham, 1080, 696-720. (2020)
115. Rusyn, B., Pohreliuk, L., Rzheskyi, A., Kubik, R., Ryshkovets Y., Chyrun, L., Chyrun, S., Vysotskyi, A., Fernandes, V. B.: The Mobile Application Development Based on Online Music Library for Socializing in the World of Bard Songs and Scouts' Bonfires. In: Advances in Intelligent Systems and Computing IV, Springer, 1080, 734-756. (2020)
116. Antonyuk N., Chyrun L., Andrunyk V., Vasevych A., Chyrun S., Gozhyj A., Kalinina I., Borzov Y.: Medical News Aggregation and Ranking of Taking into Account the User Needs. In: CEUR Workshop Proceedings, Vol-2362, 369-382. (2019)
117. Kis, Y., Chyrun, L., Tsymbaliak, T., Chyrun, L.: Development of System for Managers Relationship Management with Customers. In: Lecture Notes in Computational Intelligence and Decision Making, 1020, 405-421. (2020)
118. Chyrun, L., Kowalska-Styczen, A., Burov, Y., Berko, A., Vasevych, A., Pelekh, I., Ryshkovets, Y.: Heterogeneous Data with Agreed Content Aggregation System Development. In: CEUR Workshop Proceedings, Vol-2386, 35-54. (2019)
119. Chyrun, L., Burov, Y., Rusyn, B., Pohreliuk, L., Oleshek, O., Gozhyj, .., Bobyk, I.: Web Resource Changes Monitoring System Development. In: CEUR Workshop Proceedings, Vol-2386, 255-273. (2019)
120. Gozhyj, A., Chyrun, L., Kowalska-Styczen, A., Lozynska, O.: Uniform Method of Operative Content Management in Web Systems. In: CEUR Workshop Proceedings, Vol-2136, 62-77. (2018)
121. Chyrun, L., Gozhyj, A., Yevseyeva, I., Dosyn, D., Tyhonov, V., Zakharchuk, M.: Web Content Monitoring System Development. In: CEUR Workshop Proceedings, Vol-2362, 126-142. (2019)
122. Bisikalo, O., Ivanov, Y., Sholota, V.: Modeling the Phenomenological Concepts for Figurative Processing of Natural-Language Constructions. In: CEUR Workshop Proceedings, Vol-2362, 1-11. (2019)
123. Kulchytskyi, I.: Statistical Analysis of the Short Stories by Roman Ivanychuk. In: CEUR Workshop Proceedings, Vol-2362, 312-321. (2019)
124. Shandruk, U.: Quantitative Characteristics of Key Words in Texts of Scientific Genre (on the Material of the Ukrainian Scientific Journal). In: CEUR Workshop Proceedings, Vol-2362, 163-172. (2019)
125. Levchenko, O., Romanyshyn, N., Dosyn, D.: Method of Automated Identification of Metaphoric Meaning in Adjective + Noun Word Combinations (Based on the Ukrainian Language). In: CEUR Workshop Proceedings, Vol-2386, 370-380. (2019)