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STRUCTURAL AND SEMANTIC ASPECTS OF MODERN ENGLISH MEDICAL TERMINOLOGY

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Abstract

Terminology is an important component of linguistics, which allows for solving many theoretical and practical issues of the formation and functioning of the terminological apparatus of various fields of human life. The current medical terminology system is not set forever in any language as new terms continue appearing constantly and intensively. The object of the study was medical terminology of the modern English language. This study aims to give a general characteristic of main structural and semantic types of medical terms. The research was based on the material from textbooks on medical terminology and specialized dictionaries. Thus, the study demonstrates some patterns of term structures related to ways of forming new vocabulary in general. Based on the lexical semantic approach, the studied examples of medical terminology were divided into eight thematic groups.
Keywords: medical terminology, structure, lexical semantic approach.

1. Introduction

Terminology enables the resolution of both theoretical and practical issues concerning the development and operation of the terminological framework across various domains of human life. Specifically, it facilitates the investigation of term semantics, historical origins, stages of adoption, periods of formal and semantic assimilation, and subsequent usage within the language community. Consequently, the exploration of medical terminology

within the English language is pertinent and holds both theoretical significance and practical value.

Terminology comprises the set of terms specific to a particular field of production, activity, or knowledge, forming a distinct sector of vocabulary that is more amenable to conscious regulation and organization. Medical terminology forms the essential linguistic base of the healthcare system. Since doctors receive their education at various universities and undergo training in different hospitals, specialties, and locations, a unified medical terminology system is crucial for ensuring effective care and minimizing miscommunication.

The study aims to characterize the structural and semantic types of modern medical terminology in the English language. Some specialized dictionaries available online served as the basic research materials.

The nature of the subject under examination necessitated the utilization of several methods: direct observation was employed to record and gather empirical data; the descriptive method was utilized for characterizing medical terms; and the method of complex analysis was applied for linguistic interpretation of medical terms across various levels of the linguistic hierarchy, notably at the lexical-semantic and morphemic levels.

2. Research Background

A term is the product of human cognitive activity, constituting one of the components of social memory and playing a crucial role in professional communication. One of the scholars, Syzonov (2011), indicates that terminological issues transcend national or societal boundaries, assuming international significance and becoming matters of human civilization's history and intercultural relations. The consensus among most researchers is that the term represents a linguistic phenomenon closely associated with the scientific style in all modern languages, with systematicity being one of its primary characteristics (Arnold, 1995; Golovin, 1979). For instance, Golovin (1979) identifies systematicity and objectivity as its principal characteristics, while highlighting nominative function (aptly naming the concept) and definitive function (providing an explanation) as key functions of the term.

The field of medical terminology within linguistics continues to evolve, with scholars from various countries contributing to the exploration of specific aspects. Among them, for instance, Ukrainian scholars Nimchuk (1985) and Chernyavskyi (1984) who delved into the historical aspect, while Pylypenko and Korneyko (1995) focused on radiological medicine, and Lepekha (2000) examined forensic medicine. Linqustic aspects of medical terminology in Ukrainian have been scrutinized by Lytvynenko and Misnyk

(2001). The standardization of medical terminology has been addressed by Kitsera (2023), Navchuk and Tkach (2010).

Lepine (1990) authored a French-English/English-French dictionary of medical terms. The Old English medical terms were studied by Pons-Sanz (2007), while Hayden (2014), an Irish scholar, has been exploring medical Irish texts from the Middle Ages.

Contrastive analysis of English and Polish surveying terminology with a focus on English and Polish, was done by Kwiatek (2013) who examined in depth terms from different fields including medicine. Different ways of building medical terms of English medical terminology were also the subject of study by Džuganová (2013) who is affiliated with Comenius University in Bratislava, Slovakia.

Medical discourse was the focus of a number of other interdisciplinary investigations which resulted in the book titled *Medical Discourse in Professional, Academic and Popular Settings* edited by Ordóñez-López and Edo-Marzá (2016). The book contains 9 chapters written by 12 scholars whose "contributions… deal with key aspects of medical discourse, such as the use of metaphor referring to cancer, the importance of ethics in medical documents addressed to patients and the linguistic challenges involved, as well as the discourse analysis of some fundamental medical genres" (Ordóñez--López, Edo-Marzá, 2016).

Every nation possesses its own distinct systems of medical education and healthcare, which operate using the national medical languages. As Wulff (2004) noted, the national medical languages are abundant in medical terms rooted in Latin, serving as a common characteristic. However, each national language has developed its unique approach to medical discourse. Despite this diversity, English stands out as the lingua franca in global medical research, medical writing, and healthcare. The vital link between them is facilitated through translation. Consequently, scholarly inquiries in translation studies encompass issues pertaining to medical discourse in general and medical terminology in particular. The monograph *Towards Understanding Medical Translation and Interpretation*, edited by Karwacka (2018), delves into three primary concerns in the realm of medical translation: challenges specific to discourse and genres in medical translation, attributes of medical language encompassing medical terminology, and the training of medical translators. Within this publication, a chapter authored by Džuganová, entitled *Various Aspects of Medical English Terminology*, offers a comprehensive synopsis of English medical terminology, with a focus on its historical, etymological, semantic, morphological, and educational facets.

The continuous and significant expansion of the English medical terminology system is a testament to its status as a rapidly evolving system that ignites scientific curiosity within society. The diverse composition of Eng-

lish-language terminology, with respect to its origins, mirrors the extensive historical evolution of the terminology system.

"Medical etymology brings us into contact with the history of medicine, of human ideas, and of the human struggle to understand the forces of nature that determine human destiny and mortality," articulated physician Dirckx (Stöppler, 2021). This realization becomes palpable when delving into the exploration of medical terminology.

For novices or individuals aspiring to enter the medical realm, a proficient grasp of medical terminology, encompassing their etymology and connotations, can be advantageous as they navigate their studies and progress in their professional journey.

The education of aspiring specialists commences with meticulously curated courses that impart a wealth of medical terminology knowledge, with a crucial emphasis on establishing coherence in the prefixes, roots, and suffixes utilized to formulate both archaic and contemporary terms. These courses offer extensive tables designed to facilitate comprehensive memorization and foster readiness to decipher seemingly unfamiliar terms.

While medical terms originate from various languages, a significant portion was derived from Greek and Latin (Lysanets and Bieliaieva, 2018) Greek-origin terms are prevalent in clinical terminology, e.g. *cardiology, nephropathia, gastritis*, while Latin terms dominate anatomical terminology (Nomina Anatomica), e.g. *cor, ren, ventriculus*. Linguists estimate that approximately three-quarters of medical terminology has Greek roots (Banay, 1948). Hippocrates' followers were pioneers in describing diseases based on observation and coined many terms which are still in use today, such as *arthritis, nephritis,* and *pleuritis*. Another reason for the abundance of Greek medical terms was the linguistic suitability of the Greek language for constructing complex words. Furthermore, the use of classical Greek roots remains common across languages, contributing to the development of an international medical language.

Even during its formative stages, Greek medicine gained popularity in Rome, resulting in the supplementation of its terminology with many Latin terms. Latin served as the language of science until the early 18th century, consequently, all medical texts were written in Latin. Throughout the Middle Ages, Latin was extensively utilized in the medical field, giving rise to terms such as *virus, cadaver, cornea, vertigo, appendix, pus, abdomen, ligament*, and *saliva*. The terminology of anatomy, heavily influenced by the monumental anatomical work of Vesalius, *De humani corporis fabrica* (1543) and according to Strzelec, Chmielewski, and Gworys, by the Terminologia Anatomica, comprising "7635 items" (Strzelec, Chmielewski, and Gworys, 2017), is predominantly Latin.

With the incursion of Germanic tribes in Britain, simple nouns for anatomical components emerged in the English lexicon, encompassing *back, breast, hand, head,* and *neck*. Subsequently, the Vikings introduced supple-

mentary terms such as *scalp, skin,* and *skull*. The Norman conquest further molded the lexicon of medical science in England by introducing elements of the French language. Throughout their dominion, English was supplanted by French in the realm of medicine, becoming the predominant language utilized by the aristocracy, in commerce, and in legal practice. Various terms derived from French have evolved into medical jargon, encompassing *massage, passage, plaque, pipette,* and *bougie.* Moreover, medical English has been significantly influenced by Arabic medicinal practices, as evidenced by terminologies such as *alcohol, alchemy,* and *nitrate*.

Modern medical English terms often derive their names from people, places, and mythological figures, forming what are known as eponyms (such as *Parkinson's disease, Lyme disease*, and *Morphine*). Additionally, many terms are also borrowed from other languages, such as French (*Grand mal, glucose*), German (*Gestalt, antibody*), African languages (*tsetse*), and Italian (*Pellagra, malaria,* which originated from 'mal' meaning 'bad air'). Furthermore, brand names are frequently coined, particularly for drugs and equipment, examples of which include *aspirin, lanolin, vaseline*, and *adrenaline*.

Terminological systems in specialized fields develop through the careful selection from various expressive options provided by written language. This selection process involves specialists in the respective fields working closely with linguists. Together, they make decisions about semantic motivation, word formation, and syntactic characteristics for multi-word terms. The system of medical terminology, especially anatomical vocabulary, directly reflects the natural state of affairs, with term relationships based on conceptual connections. This systematic nature is also evident in the linguistic form of terms, even if not always in formal word formation. For example, regularly repeated morphemes can convey conceptual connections.

English medical terminology exhibits several common developmental features. ***Integration*** is prominent, as medicine interfaces with numerous fields like biology, biochemistry, and genetics, resulting in terms such as *biocurrent, aglucon*, and *genovariation*. ***Differentiation*** is facilitated by the emergence of new sciences and their specialized terminologies, as seen in disciplines like *histology, stomatology, traumatology, and toxicology*. ***Internationalization*** is achieved through terms of Greek-Latin origin, exemplified by *angiopneumography*. ***Economical use of language means*** is accomplished through abbreviation and symbolization, as seen in examples like *MRI* (*magnetic resonance imaging*).

Thus, generally the enrichment of English medical vocabulary happens in three possible ways: 1. *forming new names*, 2. *forming new meanings* and 3. *borrowing words from other languages* (Peprník, 1992). There is also another approach which describes the utilization of traditional word-formation methods inherent to the English language, including: 1. *morphological* by means of deri-

vation, compounding, abbreviation; 2. *syntactic* by forming collocations and multi-word phrases; 3. *semantic* by narrowing (specifying) the meaning of common words; by metaphoric and metonymic transfer of the previous meaning; 4. *borrowing words from other languages* (Džuganová, 2013).

3. The Structural Aspect of English Medical Terms

Medical terminology exhibits a remarkably regular morphology, where consistent prefixes and suffixes are employed to convey meanings across various roots. These roots, prefixes, and suffixes are frequently derived from Greek or Latin origins, often bearing little resemblance to their English-language counterparts. This regular morphology simplifies comprehension of complex terms, as mastering a set number of morphemes enables understanding of intricate terms constructed from those morphemes. From an etymological perspective, affixes are classified into two broad categories: native and borrowed.

Analyzing the main methods of word formation of English medical terms, I concluded that **derivation** is the most productive method which also can be described further according to the morphological means used to form new units: suffixes prefixes, and both affixes simultaneously (Arnold, 1995). However, medical terms as lexical units can also be formed utilizing clipping and abbreviation. Therefore, the lexical units under scrutiny can be divided into six word-formation types, depending on which language devices or means are involved in the creation of the terms:

1) root words;
2) terms derived by means of suffixes, prefixes, and both affixes;
3) compounding;
4) multi-word phrases are terms which consist of two or more words;
5) clippings;
6) abbreviations.

The first group comprises the words which became terms and are of different origin, for example *absorb, cell, realm, hormone,* or were formed by means of conversion, for example, *blind / to blind.*

The second group, which is the most abundant can be subdivided into three subgroups:

a) suffixes: *card/iac, corn/eal, acid/ic, cyto/log/y*, *hepat/ic, hepat/itis, cardio/dynia, aden/oid, carcin/oma, neur/osis, hyp/oxia, baso/phil, septo/plasty, pneumo/thorax, gonado/tropic, tomo/tocia*.
b) prefixes: *mal/function, dis/solve, anti/body, a/phasia, an/orexia, ad/hesion, ab/duct, anti/body, apo/plexy, brady/cardia*, *dia/phragm*, *pachy/derma, diar/rhea.*

c) prefixes+suffixes: *micro/scop/ic, hyper/tens/ion, re/act/ant, de/gener/ate, sub/hepat/ic, intra/ven/ous, dis/infect/ion, eso/gastr/*itis, *per/trochanter/ic.*

All the examples provided above contain suffixes and prefixes of Greek and Latin origin. However, it does not mean that only such affixes can be traced in English medical terminology.

First, the use of some particularly frequent native (suffixes). The most popular among noun suffixes are **-er** (*layer, pacemaker, ulcer*), **-ing** (*breathing, covering, hardening, probing, squeezing*) and **-y** (*deficiency, excitability, extensibility, heredity, pregnancy, sensitivity*).

The adjectival affix **-y** is often used: *hereditary, medullary, pulmonary, salivary, scratchy, sensory, spongy, sticky, urinary, waxy*.

Second, there also affixes borrowed from other languages. For instance, French suffixes which were assimilated by English: **-ous** (*cancerous, pernicious*), **-ment** (*filament, ligament, nourishment*) and others (Zalipska, 2019).

The content of English-language medical terms is partially determined by affixes, carrying a semantic load. Suffixes that mark the term element's belonging to a certain group are productive. Thus, the suffixes: **-er, -or, -ian, -ist, -ant** are used to form nouns denoting specialists, for example, *doctor, pediatrician, oculist, pharmacist*, **-ing, -ment** express processes, for example, *bleeding, swelling, swallowing, treatment, replacement*; -**ure, -ness, -hood, -ence, -ance, -ion, -ship** mainly convey abstract concepts of action, state, phenomenon: *pressure, failure, medication, experience, faintness*.

A compound word is a fixed expression made up of more than one word, that may be written in three ways in English, for example, *wheelchair, bloodstream, alpha-carotene* (*alpha carotene*), *life-span, blood pressure.*

Multi-word phrases are terms which consist of two or more words: *amino acid, artery hardening, arterial plaque, blood clotting, detached retina, heart palpitations, ulcerative colitis, colorectal cancer, glycemic index, visual acuity, unsatured fat*, *human chorionic gonadotropin, chromaffin cellm, cholangiocellular carcinoma, arteriovenous fistula, ankylosing spondylitis* (Zastrizhna, 2018) or *Acquired Immune Deficiency Syndrome*, *Bovine Spongiform Encephalopathy, Severe Acute Respiratory Syndrome, Irritable Bowel Syndrome*. Some of these multi-word terms can be alternatively considered as compounds. Plag (2003) and Bauer et al. (2013), among others, regard combinations of two nouns, e.g. *artery hardening*, as compound words (and not as collocations). But the last examples are also the base for further abbreviations, for instance, AIDS, BSE, SARS, IBS.

The fifth type of word-forming widely used in modern English medical terminology is **clipping.** According to Bauer (1993) "clipping refers to the process whereby a lexeme (simplex or complex) is shortened, while retaining the same meaning and still being a member of the same form class. Fre-

quently clipping results in a change of stylistic level." For example, *cal* (*<<calorie*), *cath* (*<<catheter*), *flu* (*<<influenza*), *chemo* (*<<chemotherapy*). Currently, there is no consensus as to what type of word formation can be attributed to such words as *reg.* (*<<regular*), *rehab.* (*<<rehabilitation*), *resp.* (*<<respiratory, respirations*), *sep.* (*<<separated*), *sp. cd.* (*<<spinal cord*), *spec.* (*<<specimen*), *spont.* (*<<spontaneous*), because in writing they are used with a full stop. Bauer (2013), Plag (2003), Džuganova (2013) consider them clippings. At the same time, such linguists as Honkapohja and Marcus (2024) believe that such word forms are formed using abbreviation. They define 'abbreviation' as in Bieswanger (Bieswanger, Herring, Stein and Virtanen, 2013), as a neutral term which is used 'to refer to all strategies that result in lexical forms that are made up by fewer characters than the full form of a word or a combination of words'.

The sixth type is an **abbreviation**. So, this is also a blanket term for any shortened or contracted form of a word or phrase.

Acronyms are a specific type of abbreviations formed from the first letters of a multi-word term, name, or phrase, with those letters pronounced together as one term. According to Crystal, acronyms are initialisms pronounced as single words: *AIDS* or the *A*(*cquired*) *I*(*mmune*) *D*(*efficiency*) *S*(*yndrome*) – is an acronym because we pronounce it as one word, /eids/. Normally acronyms and initialisms are regarded as subgroups of abbreviations: "Some linguists do not recognize a sharp distinction between acronyms and initialisms, but use the former term for both." (Crystal, 1995). Sometimes acronym can be formed from parts of words as in *ADA Diet* (*American Diabetes Association Diet*), *PTA pulse* (*posterior tibial artery pulse*) or *RAtx* (*radiation therapy*).

So, **initialisms** are types of acronyms. They are also created when a phrase is represented by the first letter of each word that makes it up but they are usually pronounced by saying each letter of the acronym, like *CCU* (*coronary care unit*) and *HEENT* (*head, eyes, ears, nose, throat*) which is not pronounced as /hi:nt/.

To complicate the issue, there are hybrid forms which:

— can be abbreviations for more than one multi-word phrase (*L.O.C., loss of consciousness, level of consciousness, laxative of choice; max., maximum, maxillary; PI, present illness, pulmonary insufficiency*),
— consist of letters and numbers (*L2, L3 / second lumbar vertebrae, third lumbar vertebrae*),
— consist of standard chemical symbols as *NaCl* (*sodium chloride*), and shortened forms of other words as O_2 *cap.* (*oxygen capacity*), O_2 *sat.* (*oxygen saturation*),
— consist of initialism and other symbols: *PWB%* (*partial weight bearing with percent*),

— consist of abbreviations of the words of different from English languages, in particular Latin: *MRSA* (*methicillin-resistant Staphylococcus aureus*).

There are other instances of abbreviations for the Latin words used in prescriptions: *Rx* is the abbreviation for the Latin word meaning "*recipe*", *a.c.* – *"before meals"*; *"PO"* or *"per os"* means the medication is taken by mouth, or orally; BID: *bis in die*, "twice a day"; TID: *ter in die,* "three times a day".

The use of abbreviations in general, acronyms and initialisms in particular, is so common nowadays that medical practitioners, and other professionals in medicine have to learn some lists of them. For laymen, quite extensive lists of abbreviations and explanation how to read prescriptions can be found online.

There are also some other ways of forming medical terms. However, their structure does not differentiate from the above-described instances. The most popular are absolute synonyms of medical terms, in my opinion. For example, *acute myocardial infarction* and *heart attack*, *esophagogastroduodenoscopy* and *upper endoscopy*, *benign prostatic hyperplasia* and *enlarged prostate*. These synonymous terms are widely used interchangeably in medical literature and practice, indicating the prevalence of absolute synonyms in medical terminology. This popularity is attributed to the ambiguity of some medical terms, although as terms they should possess a single lexical meaning.

1) **names of body parts and organs**: *armpit – underarm, breastbone – sternum, oxygenated – oxygen-rich, thorax – chest*; *navel – umbilicus*;
2) **names of internal organs and their parts**: *amygdal – tonsil, oesophagus – gullet, patella – kneecap, shank – shin, trachea – windpipe, uterus – womb*;
3) **names of diseases**: *atrophy – wasting, influenza – flu*, *leukaemia – anemia, rubella – roseola, scarlet fever – scarlatina, smallpox – variola*;
4) **names of processes or actions used to describe symptoms or treatment**: to *absorb – to occlude, to engulf, to trap, to merge, adiaphorous – deleterious – noxious – unhealthy, alterative – analeptic, antifebrile – antipyretic, to deliver – to diffuse, to entail – to induce, to subside – to suppress.*

In different thematic groups there are also stylistic synonyms of medical terms as follows:

1) **names of body parts and organs**: *abdomen – belly, loin – waist – small of the back, navel – belly button or tummy button, genitals - private parts*;
2) **names of diseases**: *atrophy – obsoleteness, influenza – grippe*.

The structure of these synonymous terms is generally consistent in most cases, with single words matching single words and multi-word phrases corresponding to other multi-word phrases. As for stylistic synonyms, the correspondence is one word = multi-word phrase (*navel – belly button or tummy button, genitals - private parts*).

To sum up, new lexemes can be formed in various ways and may result in the emergence of polysemy and synonyms, which can cause misunderstandings in medical communication, both in written and spoken forms.

4. Thematic Groups of English Medical Terminology

The field of medicine operates with a large number of lexical units in general, in English in particular. There is a constant need to classify them according to various criteria, including the semantic approach. So, for example, such classifications as International Statistical Classification of Diseases and Related Health Problems (ICD) and SNOMED CT, which means the Systematized Nomenclature of Medicine-Clinical Terms. There are also some other classifications based on other criteria.

In this study, I specified several thematic groups of medical terms, which can be further divided into subgroups employing a lexical semantic approach.

The **first** thematic group includes terms used in **human anatomy** to name parts of the body, external and internal organs, tissues and systems: *head, shoulder, foot, shin, heart, arm, artery, veins, venules, eye, nose, capillaries, blood vessels, mouth, stomach, jaw, tongue, cheek*.

The **second** thematic group, the group of **the names of diseases**, unites several semantic groups, each of which has a common component. For example, the component 'disease of the articulation apparatus' includes the following names: *prognathism, progeny, Rett syndrome, motor alalia, dysontogenetic variant of general speech underdevelopment, speech ontogenesis, rhinophonia, rhinolalia, macroglossia, macroglossia, aglossia* and others.

It can be divided into subgroups as follows:

1) Nomination according to a characteristic sign of the disease:
   a) by the names of the pathology (*pathomorphological and pathophysiological manifestations*); based on the term *alalia* (*motor and sensory alalia*);
   b) by the names of the forms of the course of the disease (for example, with the help of the name of the symptom *acute*, the term names of the diseases were formed: *acute appendicitis, acute adnexitis, acute myocardial infarction*).
2) Nomination according to the location (name of the organ or part of the body) of the disease (for example, *lung cancer, brain tumor, bladder cancer, breast cancer,* and *other types of cancer, genital herpes*).
3) Nomination as a result of secondary nomination (for example, the medical term *Saint Vitus' dance* is the result of associative perception of dance and disease).

The **third** thematic and lexical group consists of terms for **disease symptoms and syndromes,** they are united by a common semantic component 'sign', 'characteristic manifestation of the disease'. This includes such thematic microterm groups as:

1) Names for the designation of subjective or general symptoms of the disease: *asthma, sore throat, joint pain, headache, heart attack*.
2) Names including morphological elements of the affected organ or part of the body: *thrombophlebitis, adenoma, myxoma*.
3) General names of disease syndromes with reference to the name of the scientist, who is believed to discover or research the disease: *Rett syndrome, Stokes-Adams syndrome, Guillain-Barré syndrome, Angelman's syndrome, Happy Puppet syndrome, Creutzfeldt-Jakob disease*.

The **fourth** thematic group of medical terms encompasses the names of **disease causes** and can be further divided into specific subgroups:

1) Terms denoting adverse effects on the human body (such as mechanical or temperature-related) that lead to various other diseases, for instance *acute infection, nervous stress, brain injury, birth trauma, asphyxia*.
2) Terms denoting general diseases or bodily disorders that impact specific anatomical organs or systems, such as *neurovascular disorders, toxicosis, neuropsychiatric disorders, and speech underdevelopment*.
3) Terms denoting particles formed within or on the human body that trigger disease, such as *thrombus, fibrous plaque, wart,* and *verruca*.

The **fifth** thematic group encompasses the **names of drugs**, which are diverse and continuously expanding. This group includes specific drug names used for disease treatment, such as *paracetamol, streptocide, cardiomin, upsarin, libexin, aspirin, Zofran, metoclopramide,* and *promethazine*.

The **sixth** thematic group comprises the names of **treatment methods and techniques,** including:

a) Generalized methods of treatment, such as *cardioplasty, novocaine blockade, and kidney transplantation*.
b) Mechanical or artificial materials used to replace a part or an organ entirely, such as *artificial kidney, artificial heart valves, and artificial joint*.

The **seventh** thematic group of terms comprises names of **methods used for studying and diagnosing diseases** of specific organs or systems. Examples include *photofluorography, fingerprinting, cardiogram, auscultation of the heart,* and *abdominal dissection*.

The **eighth** thematic group of terms covers the names of **equipment,** which is also called medical devices, and **supplies** used by medical practitioners and can be further subcategorized.

Medical devices encompass all health technologies (excluding vaccines and medications) necessary for prevention, diagnosis, treatment, monitoring, rehabilitation, and palliation. They are crucial for ensuring universal

health coverage, tracking well-being, and responding to outbreaks or emergencies. Examples of medical devices include:

— single use devices (for example, *syringes, catheters*),
— implantable (for example, *hip prothesis, pacemakers*),
— imaging (for example, *ultrasound and CT scanners*),
— medical equipment (for example, anesthesia machines, patient monitors, hemodialysis machines),
— software (for example, *computer aided diagnostics*),
— in vitro diagnostics (for example, *glucometer, HIV tests*),
— personal protective equipment (for example, *mask, gowns, gloves*),
— surgical and laboratory instruments (for example, *forceps, surgical scissors, abdominal retractors, poole suction, tissue clamps, needle holders, scalpels, blades, drills*) (World Health Organization. Nomenclature of medical devices).

To sum up this section, I must acknowledge that further considerations are necessary to draw more precise conclusions. The reasons for this are as follows: the thematic groups overlap, and a significant number of terms can belong to two groups simultaneously. Additionally, applying different criteria may result in a different number of groups and their configurations.

5. Conclusion

The examination of medical terms in modern English revealed several structural patterns of their formation, including root words originated from different languages, in particular Greek and Latin, derivatives, which were formed by means of affixes, compounds, multi-word phrases, clipping and abbreviations. The corpus of terms continues to expand through such methods as integration, differentiation, internationalization, and economical use of lexical resources.

Based on lexical semantic criteria, the studied medical terminology can be divided into seven overarching thematic groups, each further subgroupped according to the key component or purpose of use.

The formation of English medical terminology has progressed through several significant historical stages, mirroring the development of medicine both globally and within Great Britain specifically. The emergence of new terms is not solely tied to their original lexical basis or the content of corresponding concepts. Instead, it is intricately linked to the social changes occurring worldwide and within individual countries with established medical institutions.

As English medical terminology continues to evolve, problems resulting from the polysemy of medical terms (such as acronyms), or from the occur-

rence of synonyms emerge. Given English's status as the international language of scientific communication and technological advancement, addressing these linguistic challenges is imperative. The primary focus of contemporary terminology research in medicine revolves around developing methods to organize and standardize existing terminological systems. This aims to establish uniformity in naming diseases, thereby reducing medical misunderstandings and errors in patient treatment.

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