Systematic organization of english medical terminology

Organización sistemática de la terminología médica inglesa

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Abstract

The terminology of medicine within the systematic approach is studied as a well-ordered base with a specific set of components, structure, and functions inherent in a given terminological system, i.e. components making up the entire system, relations between the elements, the effect of the transformation of a particular element on other components and the whole system generally. In this regard, much attention in the systematic research of terminology is paid to the analysis of important system categories: components, contacts, structure. The choice of medical terminology as an object of study, in particular, the terminology of genetics can be explained by the fact that it represents an important communicatively lexical system that is constantly updated and intensively developed. Medical terminology is comparable to socio-political, sports and technical terminology, which is quite natural since medicine acts as a leading part in the process of comprehending the world, and the functional sphere of medicine is directly related to the life of a modern person. According to our observations, the derivation of the terminology space of genetics can be represented in the form of systemically organized, conceptually interconnected and interdependent blocks. The terminological system of genetics shows that it belongs to the class of adaptive self-organizing and self-adjusting systems. In this case, an adequate solution to the issue of polysemy is of great importance. This fact is related to the point that the terminology of different sciences can correlate and do not conflict with the properties of adjacent subsystems, which can contribute to the development of interbranch polysemy. The theoretical significance of the study helps to determine the place of the English medical terminology of genetics in the general vocabulary system. In practical terms, the results of the study can find application in creating a dictionary containing new words in fundamental lexicographic publications.

Keywords: terminology, medicine, vocabulary, systematic organization, structure, component.

Resumen

La terminología de la medicina dentro del enfoque sistemático se estudia como una base bien ordenada con un conjunto específico de componentes, estructura y funciones inherentes a un sistema terminológico dado, es decir, componentes que componen el sistema completo, relaciones entre los elementos, el efecto de la transformación de un elemento particular en otros componentes y en todo el sistema en general. En este sentido, en la investigación sistemática de terminología se presta mucha atención al análisis de categorías importantes del sistema: componentes, contactos, estructura. La elección de la terminología médica como objeto de estudio, en particular, la terminología de la genética se puede explicar por el hecho de que representa un importante sistema léxico comunicativo que se actualiza constantemente y se desarrolla intensamente. La terminología médica es comparable a la terminología sociopolítica, deportiva y técnica, lo cual es bastante natural ya que la medicina actúa como protagonista en el proceso de comprensión del mundo, y la esfera funcional de la medicina está directamente relacionada con la vida de una persona moderna. Según nuestras observaciones, la derivación del espacio terminológico de la genética se puede representar en forma de bloques organizados sistémicamente, interconectados conceptualmente e interdependientes. El sistema terminológico de la genética muestra que pertenece a la clase de sistemas adaptativos autoorganizados y autoajustables. En este caso, una solución adecuada al problema de la polisemia es de gran importancia. Este hecho está relacionado con el hecho de que la terminología de diferentes ciencias puede correlacionarse y no entrar en conflicto con las propiedades de subsistemas adyacentes, lo que puede contribuir al desarrollo de la polisemia interprofesional. La importancia teórica del estudio ayuda a determinar el lugar de la terminología médica inglesa de la genética en el sistema de vocabulario general. En términos prácticos, los resultados del estudio pueden encontrar aplicación en la creación de un diccionario que contenga nuevas palabras en publicaciones lexicográficas fundamentales.

Palabras clave: terminología, medicina, vocabulario, organización sistemática, estructura, componente.

Introduction

The system can be considered as a set of interconnected and interdependent homogeneous elements that form a complex unity from the side of its parts.

The systematic terminology requires compliance with three terms: 1) the terminological system relies on the classification of concepts, 2) the extraction of terminated features and concepts based on classifying schemes, 3) reflection by words of the community of the terminated concept with others and its specificity[1].The terminological system, whose composition, and relations are limited by the boundaries of one branch of science and technology. This system of signs forms one terminological field. Based on these positions, according to this general law, the relations of synonymy and polysemy are fundamentally unacceptable in the terminological system [2,3].

Specific terminological systems are also designated within a special lexical system of the terminology language, the formation of which is caused not by linguistic principles, but by subject-logical connections of the corresponding concepts that reflect the structure of the object studied by this area of knowledge. The general systematic organization is not peculiar to the special vocabulary of the science language, it includes separate terminological systems and some kind of fund of interbranch terms.

The specific vocabulary of science language is characterized by a higher degree of systematic organization of its components, i.e. specific term systems, dictated by classifications according to specific criteria of the corresponding concepts, on the one hand, and, on the other hand, by the more effective intervention of science language in the formation of term systems [4].

In recent years the systematic method in studying the terminology of medicine has gained wide popularity. The methodological essence of system research is that the object of study is not considered as a set of elements, but as an integral system organization, the properties of which are not reduced to the properties of individual elements.

In the process of studying medical terminology, it is necessary to take into account the fact that scientific knowledge is inherently systematic. The systematic nature of knowledge is reflected in the conceptual system. Terminology is more systematic than other lexical strata, it is the consequence of the dual nature of terminology. On the one hand, the terminology is directly related to the system of concepts, on the other hand, the functioning and development of terminology occur according to the laws of the language. The logical organization of concepts makes it possible to distinguish sections or subject groups of a certain field of knowledge clearly. Each subject group includes initial concepts, creates the prerequisites for establishing contacts between concepts, in other words, a systematic approach determines the definition of the "place" of each concept in a conceptual system.

Methods

The terms of medicine are considered by researchers in the framework of scientific and technical terminology. However, no studies are characterizing the medical term system's interaction, and the general literary language, the functioning of medical terms in the linguistic system of signs.

The main method utilized in this research is the descriptive inductive-deductive method, which includes observation, analysis, classification, and the subsequent synthesis of the phenomena studied. In combination with the descriptive method, the distribution method is also used, which contributes to the greatest degree to the formation of various environments of the analyzed units in the speech stream and the continuous sampling method for collecting material.

Results and Discussion

All units of the terminological system can be divided into two types: basic terms and derived terms. Analyzing relevant studies associated with terminology problems reveals significant interest in the development and formation of basic terms since the study of the history of the formation and development of basic terminology provides an idea of the formation of the entire terminology.

At the present stage in linguistics, there is no consensus on the "basic" term, which is expressed in the absence of a single nomination for the given concept.

The following criteria should be considered while selecting basic terms:

1) basic terms explicate key concepts of a certain subdomain, which can no longer be decomposed into their semantic elements;

2) the structure of basic terms cannot include more than three members;

3) the basic terms are the derivational basis, i.e. the basis for the formation of concepts of terminology;

4) represent generic concepts relative to derivative forms [5].

The selection of the basic vocabulary will provide an opportunity not only for unambiguous description of this terminological system, to study the relationship between the terms within the microsystem and contacts with the terms of other microsystems, but it will also help to resolve issues related to the unification of terminology. The study of the texts of the medical literature shows that verbose terms are widespread in them, among which significant variability can be traced. Since new instrumental methods of diagnosis and treatment arise in medical activity, which requires the use of the terms of the related field of knowledge. Terms take an active part in the creation of multi-component terms, form new microsystems within a given system. It should be borne in mind that the use of new techniques with unformed terminology has its

negative aspects, as the variability in the designation of this concept increases.

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The characterization of basic microsystems, the compilation of dictionaries of basic terms will make it possible to identify all variants of basic terms that provoke the phenomenon of synonymy in medical terminology, and it will help to resolve the problems of its unification and standardization.

Summary

The analysis of specialized terminological systems is a leading area of linguistic research. Medical genetic terminology occupies the central place among other biological sciences. During the study and analysis of genetic terminology, the following groups were identified:

1. The terms of the sublanguage of genetics, which did not penetrate the general language system: the term siblings are descendants introduced as an acronym by adding the initial letters of two words; *monosome* is unpaired sex chromosome; *transcription* is RNA synthesis on a DNA template [6].

2. Terms-phrases with a common element in other terminological systems: *genetic field, temperature field*. Similar characteristics can be observed between biological and physical phenomena (an analogy between field theories in physics and the concept of field in genetics) [7].

3. Terms-phrases that convey a special concept, but expressing the ability to be in other terminological systems: *translational control* is the regulation of gene expression of the corresponding mRNA; *balanced stock* is a line of traits supported from generation to generation; *negative interference* is the frequency of recombination between sites; *inversion* is a chromosomal rearrangement [8, 9].

4. Terms that differ by differential semes with a common archive: *mutation* is an induced change in the structure of the gene; *the arm* is a divided segment of the chromosome; *disjunction* is a divergence of chromosomes; *the bridge* is a connection between groups of chromosomes [7].

5. Terms that have penetrated the general linguistic thesaurus through the notion: *transformation* is a change in the heredity of the cell; *induction* is the development of a cell under the influence of another [10].

6. Terms that penetrated without changing the semantics along with other sciences: *screening* is a method that allows us to recognize a single object; *gene-regulator* is a gene encoding a repressor protein [7].

Thus, consistency is one of the most important principles for building a terminological system. The system is an entity, consisting of several concepts of this field of knowledge, nominated using terminological units that are associated with certain relationships both at the level of its micro-terminological system of genetics and at the level of the macro-terminological system of medicine. Consequently, the terminology of genetics shows that it belongs to the class of adaptive self-organizing and self-tuning systems. An adequate solution to the polysemy issue is of great importance. This fact is related to the fact that the terminology of different sciences can correlate and not conflict with the properties of related subsystems, which can contribute to the development of interbranch polysemy.

Conclusion

The motivation features of medical terminology are explained by the complex and abstract nature of the vocabulary itself. This fact indicates that the semantics of such terms are most directly related to their relevance.

The international nature of medical terminology can be explained by its internationalization based on Greek-Latin combining elements. But in recent decades it is based on the English language. The internationalization of this terminology is facilitated by the fact that new terms are borrowed from one language to another in the form the author created them.

According to our observations, the derivation of the terminological space of the terminology of genetics can be represented as a systemically organized set of conceptually interconnected and interdependent blocks. The evolutionary aspect of term formation is manifested in the dynamics and development of these blocks, which is associated with issues of relevance and significance of concepts requiring explication and nomination, derivational forms of the term. The boundaries of the blocks are mobile, their permanent fixation is impossible due to the inability to determine the boundaries of knowledge and the final line beyond which this process finishes. In this regard, the processes of fulfilling blocks prevail over the processes of new blocks formation.

An ontologically relevant feature of the derivational system of the language of science is the presence of terminological types where derivatives are formed based on the generating word when the direct generating element is extracted from the international, most often connected root. Due to the lack of transliteration in the production of derivatives, this phenomenon reflects the specifics of the genesis and prospects for the development of the derivational system of natural science terminology based on the Greek and Latin production stock, the units of which are the most valuable cognitive code for derived medical terms. It can represent some convention-

ality, isolation of individual author's term-creation, monosemantics, and conceptual integrity of the created term, the adequate decoding of which should not depend on the features of transliteration of the international root or its translation.

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