

# МЕДИКО-БИОЛОГИЧЕСКИЕ ВОПРОСЫ ЗДОРОВЬЯ ЧЕЛОВЕКА

---

УДК: 81'276.6

DOI [https://doi.org/10.14258/zosh\(2020\)4.06](https://doi.org/10.14258/zosh(2020)4.06)

## СПЕЦИФИКА МЕДИЦИНСКОЙ ЭПОНИМНОЙ ТЕРМИНОЛОГИИ (С УЧЕТОМ АНГЛИЙСКОГО, РУССКОГО И БОЛГАРСКОГО МЕДИЦИНСКОГО ДИСКУРСА)

**Танева Светлана Йорданова**

Старший преподаватель факультета общественного здоровья, Софийский медицинский университет (София, Болгария). E-mail: [svetlanataneva@abv.bg](mailto:svetlanataneva@abv.bg). ORCID: <https://orcid.org/0000-0002-1348-0029>.

## SPECIFICS OF MEDICAL EPONYMOUS TERMINOLOGY (IN VIEW OF ENGLISH, RUSSIAN AND BULGARIAN MEDICAL DISCOURSE)

**Taneva Svetlana Yordanova**

Senior Lecturer, Faculty of Public Health, Medical University (Sofia, Bulgaria). E-mail: [svetlanataneva@abv.bg](mailto:svetlanataneva@abv.bg). ORCID: <https://orcid.org/0000-0002-1348-0029>

**Следует цитировать / Citation:**

Танева С. Й. Специфика медицинской эпонимной терминологии (с учетом английского, русского и болгарского медицинского дискурса) // Здоровье человека, теория и методика физической культуры и спорта. — 2020. — № 4 (20). — С. 42–48. URL: <http://journal.asu.ru/index.php/zosh>. DOI [https://doi.org/10.14258/zosh\(2020\)4.06](https://doi.org/10.14258/zosh(2020)4.06).

Taneva S. Y. (2020). Specifics of medical eponymous terminology (in view of English, Russian and Bulgarian medical discourse). *Health, Physical Culture and Sports*, 4 (20), pp. 42–48 (in Russian). URL: <http://journal.asu.ru/index.php/zosh>. DOI [https://doi.org/10.14258/zosh\(2020\)4.06](https://doi.org/10.14258/zosh(2020)4.06).

Поступило в редакцию / Submitted 28.08.2020

Принято к публикации / Accepted 18.09.2020

**Аннотация.** *Цели работы:* дать общее предварительное представление о терминологической единице; обобщить основные постулаты фреймовой теории терминологии; очертить аспекты медицинских эпонимов; формировать медицинские эпонимные модели на английском, русском и болгарском академических языках; подчеркнуть практический аспект настоящего

исследования (применение в процессе языковой подготовки, расширение лингвистической медицинской компетенции). *Материалы и методы исследования.* Проанализированы 34 составных эпонимных термина на английском, русском и болгарском языках (включая синонимичные варианты трех языков). Применены методы анализа дефиниций, концептуальной интеграции, когнитивного анализа, эпонимного моделирования, этимологического анализа. *Обсуждение и результаты исследования.* Предлагается краткое описание параметров специализированного языкового термина. Обсуждаются фреймовая теория терминологии и ее основные постулаты. Междисциплинарность и многомерность медицинской области обозначены в контексте медицинской терминологии. Акцент делается на медицинских эпонимах, обозначающих различные заболевания, синдромы, симптомы, названные в честь великих ученых, мифологических героев и литературных персонажей. Сделаны следующие выводы: 1) параметры терминологической единицы специализированного языка — дефинитивность, точность, однозначность, совместимость с языковыми нормами, научная значимость, семантическая полнота; 2) медицинская эпонимная терминология экспрессивна; увековечивает память великих умов медицины, мифологических и литературных персонажей; вызывает любопытство студентов-медиков, расширяя их знания; 3) эпонимная медицинская терминологическая база — многомерность в когнитивном, лингвистическом, социально-коммуникативном и педагогическом аспектах.

**Ключевые слова:** медицинская эпонимная терминология, термин, эпоним, английские/русские/болгарские терминологические единицы, состояние здоровья.

**Abstract. Objectives:** to give a general preliminary idea of the terminological unit; to summarize the basic postulates of Frame — based Terminology Theory (FBTT); to outline the aspects of medical eponyms; to form medical eponymous models in English, Russian and Bulgarian academic languages; to emphasize practical dimension of the present study (application in language training process, expanding linguistic medical competence). *Materials and research methods.* 34 compound English, Russian and Bulgarian eponymous terms (including synonymous variants of the three languages) have been discussed. Methods of definition analysis, conceptual integration, cognitive analysis, eponymous modelling, etymological analysis have been applied. *Discussion and results of the study.* A brief description of the parameters of specialized language term is suggested. Frame-based Terminology Theory by Pamela Faber (2005–2007) and its basic postulates are discussed. Interdisciplinarity and multidimensionality of the medical domain are indicated in the context of medical terminology. The emphasis is on medical eponyms denoting various diseases, syndromes, symptoms and named after great scientists, mythological heroes and literary characters. *Conclusions.* The following conclusions have been made: 1. Specialized language terminological unit is definitive, accurate, unambiguous, consistent with language norms, scientifically relevant, semantically complete. 2. Medical eponymous terminology is expressive; immortalizes the memory of great minds of medicine, mythological and literary characters; provokes medical students» curiosity, expanding their knowledge. 3. Medical eponymous terminology base is multidimensional in terms of cognitive, linguistic, socio-communicative and pedagogical aspects.

**Keywords:** medical eponymous terminology, term, eponym, English/Russian/Bulgarian terminological units, medical condition.

## Introduction

The history of terminology is presented as a successive change of the notion of “term” — first, as “a special word” and then as “a word with

special function”, which is derivative by its nature and is the basis of linguistic substrate.

The ancient Greek origin of the word “**term**” (*terminus*) indicates that it carries the

denotation of “last”, “final”, “limiting”. According to current understanding, term is considered as a sign of natural or artificial language, which means a concept in the system of a professional field. Functioning in special styles of language, called languages for special purposes, as well, and denoting the concepts of the respective field, terminological unit provides models for scientific assimilation of the world and realizes the possibility for successful communication between specialists.

#### Purpose and objectives of the study

Consequently, the objectives we have set ourselves in the current research are as follows:

1. To give a general preliminary idea of the terminological unit.

2. To summarize the basic postulates of latest cognitive theory in terminology: Frame — based Terminology Theory (FBTT), proposed by Pamela Faber.

3. To outline the aspects of the medical eponymous terms.

4. To illustrate the great variety of eponymous terms in the domain of medicine (names of scientists, mythological and literary characters) with examples in English, Russian and Bulgarian.

5. To give a practical focus to the research — A. application in language training process at medical universities, in giving lectures and conducting seminars on general linguistics and applied terminology; B. expanding the linguistic medical competence of medical students and professionals.

#### Materials and Methods

The objectives of the study led to the inclusion of **English, Russian and Bulgarian medical eponymous terminology**, collected at random from monographs, articles, textbooks, terminological dictionaries, encyclopedias, reference books, Internet catalogues, etc. **Thirty-four (34) compound terminological units** (including synonymous variants of the three languages) have been discussed.

The realization of the present research is due to the use of the following methodology: 1. Method of definition analysis; 2. Method of conceptual integration; 3. Method of cognitive analysis; 4. Method of eponymous modelling; 5. Etymological method of analysis.

#### Discussion and results

Generally speaking, term is accurate and unambiguous definition of a notion in science. It can be either a single word or a phrase.

Term as a unit of specialized language has certain **semantic, formal and pragmatic characteristics**. In semantic aspect it should have: a) accuracy (in terms of the name of scientific concept); b) definitiveness, reflecting the result of the scientific understanding of the object, named with the given term, depending on the purposes of the specialized field of knowledge; c) unambiguity within the scientific sphere. Formally, term should correspond to the norms of language while manifesting its nominative character. Term pragmatic nature requires its use in a specialized context linked to scientific relevance and semantic integrity.

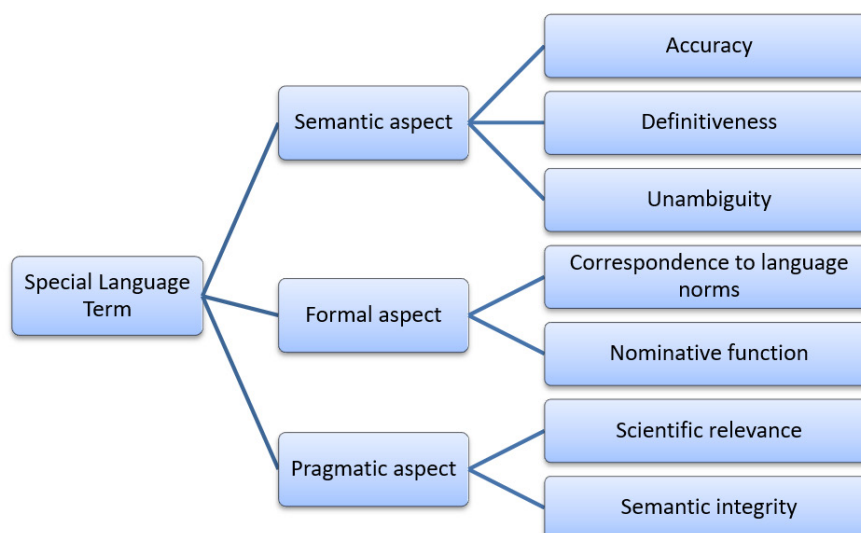


Fig. 1. Special Language Term

In turn, terms belong both to the lexical system of language and to the system of scientific concepts in a certain field, which gives rise to the specificity of their functioning and acquisition. There are paradigmatic and syntagmatic relations between terms in each terminological system, but due to the specifics of their essence these relations are considered both at the level of language vocabulary and at the level of scientific concepts.

According to the formulations of the latest cognitive theory in terminology — **Frame — based Terminology Theory (FBTT)** — proposed by **Pamela Faber** (2005–2007), the term should not be separated from the word. Specialized knowledge should be studied by its behaviour in a given textual discourse. Terms, phrases, sentences and even whole paragraphs are repeated. Certain syntactic constructions are available. Conceptual links between concepts within the domain and domain knowledge are thought to be very significant. FBTT uses the basic principles of Frame Semantics (Fillmore, 1976, 1982, 1985; Fillmore & Atkins, 1992) to structure specialized domains and create non-linguistic specific representations. In order to facilitate the acquisition of specialized knowledge, **concept — generated templates** for actions, processes and objects as a part of the considered domain — event, are used. Integrated top-down and bottom-up approaches are applied as methodology in order to derive the conceptual system of studied domain.

FBTT is based on cognitive psychology and neurology. It lies in a well-founded cognitive hypothesis according to which the interactions between sensorimotor systems and physical world are the basis of cognition, i. e. understanding depends on sensorimotor processes and ability to generalize through concepts that have similar thematic significance.

Applied in terminology FBTT concludes: a) specialized knowledge concept should not be activated in isolation but as a part of a larger structure or event; b) specialized knowledge resource should provide conceptual contexts where one concept is related to others in a dynamic structure; c) knowledge acquisition and understanding requires simulation; d) domain-specific hypothesis is implemented in terminology as “clusters” of conceptual relationships building up general presenta-

tion template (Faber, Marquez Linares & Vega Exposito, 2005; Faber, et al., 2006; Faber, et al., 2007).

In the context of medical terminology, Pamela Faber highlights **interdisciplinarity** of the domain of medicine. **Multidimensionality** in general is one of the most striking features of any specialized domain (Bowker & Meyer, 1993; Meyer & Mackintosh, 1996; Bowker, 1997). The domain of medicine is mapped on a number of fields of science: Ecology, Automotive Engineering, Economics, Politics, etc. For instance, in automotive engineering — the patient is a vehicle and the mechanic is in his capacity as a doctor who should diagnose damage and repair it. In the field of economics — in this case economy turns out to be a patient who instead of hemorrhage (blood loss) loses his occupation and finance. Thus the medical frame “hemorrhage” reaches the domain of finance.

“Invasion” of medical terminology is so ubiquitous, that areas, such as the names of the great minds of medicine, mythology and literature are also affected. As a linguistic unit such terms are called **eponyms**. An eponym from ancient Greek (epi — above; onoma — a name, giving a name) is a person (real, mythological or fictional) who gives his name to a certain concept. The term origin is associated with ancient Athens where the first of nine archons gave the name of the year during which he ruled. In ancient Rome eponyms were consuls who ruled over the years.

A number of various procedures, syndromes, symptoms, phenomena, techniques, instrumentarium have been named after the person who first discovered or invented, as well as after the names of mythological or biblical heroes or literary characters.

On the one hand, medical terminology does need eponyms since they denote some pathological conditions, which science has not identified yet. In addition, such terms add brevity and colour to medical expressions and undoubtedly, immortalize the memory of the great minds of medicine. Furthermore, eponyms arouse medical students' curiosity, expand their knowledge beyond pure medicine and help them to create concepts using non-medical language.

On the other hand, due to potential variability in spelling and pronunciation of names from nationality to nationality, from place to place, ep-



onyms are frequently considered to be the most difficult terms to assimilate and remember by medical specialists. Such terminological units serve as mnemonics and complicate the medical training process at medical universities, as well. Eponyms cannot be divided into meaningful parts so that to determine which medical condition they depict, which makes them a true challenge for specialists.

### Medical eponyms named after greatest minds in medicine

In the present study we will consider three eponyms in English, Russian and Bulgarian academic languages, named after the discoverers of new methods in operative dentistry, reconstructive surgery and neonatology.

**1. Black's sidewalks/тротуары Блэка/тротуарите на Блек** — The eponymous term is a dental procedure — classical cavity preparation. It is named after the founder of cavity preparation for amalgam, which has been widely used among dental professionals — Greene Vardiman Black (1836–1915), commonly known as Sir G. V. Black. He is often referred to as the “Father of Modern Dentistry”, “The Teacher of Teachers”. Black made a classification of carious lesions (GV Black classification) dividing them into 6 types based on their location: occlusal, buccal, lingual, gingival, tip of the teeth cusp (anteriorly, posteriorly and inter-proximaly) — a classification, which is still considered as a “must-know”.



Fig. 2. Black's sidewalks- classical cavity preparation

**2. Filatov flap, tubed flap/стебель Филатова/стъбло на Филатов** — The eponymous term presents V. P. Filatov's method in reconstructive surgery — a technique for transfer of a distant skin flap in which the flap is elevated, sutured side to side to enclose raw surfaces, and its distal end inset to the recipient site. Filatov is a great Russian

ophthalmologist and surgeon whose main contribution is to the development of tissue therapy. He was credited for introduction of the tube flap grafting method, corneal transplantation and preservation of grafts from cadaver eyes. Filatov founded the Institute of Eye Diseases and Tissue Therapy in Odessa — it was later renamed in honour of Filatov as The Filatov Institute of Eye Diseases and Tissue Therapy.

**3. Apgar score/шкала Апгар/Апгар скор** — This eponymous term immortalizes the name of its inventor — the American obstetrical anesthesiologist Virginia Apgar (1952). The terminological unit represents a test for assessment newborn condition. The Apgar score is determined by evaluating the newborn baby on five simple criteria on a scale from 0 to 2. The next stage is to sum up the five values thus obtained. The resulting score ranges from 0 to 10. The five criteria are denoted by using words chosen to form a backronym whose initial letters spell out the name of Apgar score test's inventor — Appearance (skin color), Pulse (pulse rate), Grimace (reflex irritability grimace), Activity (muscle tone), Respiration (respiratory effort).

### Apgar Scoring System

Indicator		0 Point	1 Point	2 Points
A	Activity (muscle tone)	Absent	Flexed arms and legs	Active
P	Pulse	Absent	Below 100 bpm	Over 100 bpm
G	Grimace (reflex irritability)	Floppy	Minimal response to stimulation	Prompt response to stimulation
A	Appearance (skin color)	Blue; pale	Pink body, Blue extremities	Pink
R	Respiration	Absent	Slow and irregular	Vigorous cry

Fig. 3. Apgar score

### Medical eponyms named after mythological or biblical heroes

In the field of mythology two eponymous terms have been selected reflecting disorders, symptoms, syndromes and anatomical formations in medicine.

1. The eponymous terms **Venus hill, venereal disease and “the necklace of Venus”/холм Венеры, венерическое заболевание и «ожерелье Венеры»/ венерин хълм, венерическо заболяване и «огърлицата на Венера** (maculo-papular rash in the cervical region in secondary syphilis) are named after the goddess Venus — Roman

equivalent of Aphrodite. Venus is the most beautiful of all goddesses. She was born of the sea foam. Emerged naked from the sea on a shell, Venus was dressed in beautiful clothes and taken to the other gods. Later, the supreme god married her to Hephaestion — the god of blacksmiths. The goddess was often unfaithful to her husband. The terminological unit discussed is a projection of Venus' love life and her infidelities.

2. Abnormally long, slender, curved fingers in **Marfan syndrome (MFS)/ синдром Марфана/ синдром на Марфан** are known as **arachnodactyly/ арахнодактилия/ арахнодактилия**. The delicate cobweb-like meninges under

3. the dura mater is called an **arachnoid/ арахноидеа/арахноидея**. Scenes from the extravagant life of Olympus were woven into the canvas of Arachna — a skilled weaver who dared to compete with the goddess Athena. Provoked the gods' wrath, Arachna was turned into a spider (class Arachnida).



Fig. 4. Marfan syndrome (MFS)

#### Medical eponyms named after literary characters

The two literary eponyms identified in the current study provide the complex realities of mental disease or neurological disorder with a human dimension.

**1. Alice in Wonderland Syndrome (AIWS)/ Синдром Алисы в стране чудес/ Синдром на «Алиса в страната на чудесата»** — The medical term is named after Alice, the main character in Lewis Carroll's novel "Alice's Adventures in Won-

derland". She used "Drink me" potion and "Eat me" cake to grow and shrink her way into Wonderland. AIWS is a neurological condition in which a patient's sense of body image, space and time are distorted. Sufferers may experience micropsia or Lilliputian hallucinations, macropsia or size distortion of other sensory modalities, which involve also an altered sense of velocity, brought about by the distorted sense of size, perspective and time. The most prominent and frequently most disturbing symptom is that of altered body image: patient tends to be confused in terms of the size and shape of his body parts. Such symptoms can be alarming, causing fear and even panic. Distortions are usually recurrent and it takes time for these seizures to pass.

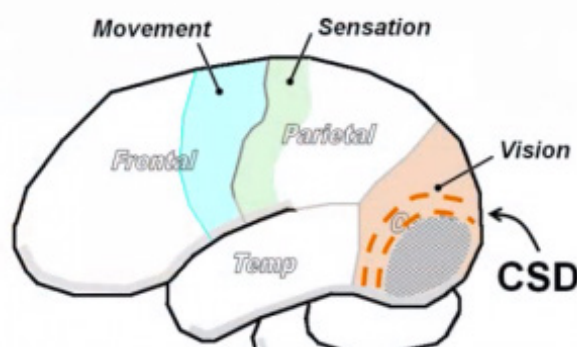


Fig. 5. Alice in Wonderland Syndrome (AIWS)

**2. Dorian Gray Syndrome/Синдром Дориана Грея/Синдром на Дориан Грей** — The eponymous term is named after Oscar Wilde's protagonist Dorian Gray from the novel "The picture of Dorian Gray" — a literary character who denies accepting the signs of aging. The protagonist sells his soul to the devil, so that he would never grow old and any signs of age would be reflected on his portrait. However, the portrait becomes a narcissistic mirror not only for Dorian's body, but for his soul, as well. As a result the image alters beyond recognition, while Dorian remains young and beautiful. Such hypochondriac obsessive preoccupation with physical attractiveness (dysmorphophobia) is commonly found in people who are searching for eternal youth. Treatment requires psychotherapy in combination with antidepressants and even neuroleptics.

## CONCLUSIONS

The parameters of specialized language term are as follows: A. Definitiveness; B. Accuracy; C. Unambiguity; D. Conformity with language norms; E. Scientific relevance; F. Semantic integrity.

The acquisition of specialized knowledge is facilitated by the applying of concept — generated templates.

Medical terminology is interdisciplinary and multidimensional.

Eponymous medical terms denote diseases, syndromes, symptoms.

Eponymous medical terms are most frequently named after great scientists, mythological heroes and literary characters.

Aspects of medical eponymous terminology are as follows: A. Brevity B. Expressiveness C. Immortalizing the memory of great minds of medicine, mythological and literary characters D. Provoking medical students' curiosity, expanding their knowledge.

## REFERENCES:

Bowker, L. & Meyer, I. (1993). Beyond “textbook” concept systems: handling multidimensionality in a new generation of term banks. In K. D. Schmitz (ed.), *TKE'93: Terminology and Knowledge Engineering*, Frankfurt: Indeks, pp. 123–137.

Bowker, L. Multidimensional classification of concepts and terms. In S. E. Wright and G. Budin (eds.), *Handbook of Terminology Management*. Philadelphia/Amsterdam: John Benjamins, 1997. pp. 131–143.

Faber, P., Márquez Linares, C. & Vega Exposito. (2005). Framing terminology: a process-oriented approach. *M: META* 50 (4)

Faber, P., et al. (2006). Process-oriented terminology management in the domain of coastal engineering. *Terminology* 12 (2). Moscow: pp. 189–213.

Faber, P., et al. Linking images and words: the description of specialized concepts. *International Journal of Lexicography* 20: 2007. pp. 39–65

Fillmore, C. J. The need for frame semantics within linguistics. *Statistical Methods in Linguistics* 12: 1976. pp. 5–29.

Fillmore, C. J. (1982). Frame semantics. In the Linguistic Society of Korea (ed.) *Linguistics in the Morning Calm*. Seoul: Hanshin, pp. 111–137.

Fillmore, C. J. (1985). Frames and the semantics of understanding. *Quaderni di Semántica*, 6 (2), 222–254.

Fillmore, C. J. & Atkins, S. (1992). Towards a frame-based organization of the lexicon: The semantics of RISK and its neighbors. In A. Lehrer and E. Kittay (eds.). *Frames, Fields, and Contrast: New Essays in Semantics and Lexical Organization*. Hillsdale: Lawrence Erlbaum, pp. 75–102.

Meyer, I. & Mackintosh, K. (1996). Refining the terminographer's concept analysis methods: how can phraseology help? *Terminology*, 3 (1), 1–26.