



**SURGICAL TERMINOLOGY OF THE CHINESE LANGUAGE AND ITS
SYSTEMATIZATION ACCORDING TO LEXICAL AND SEMANTIC FEATURES**

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Annation: Currently, Chinese traditional and modern medicine are widely popular in the global community. However, there are certain barriers to understanding Chinese medicine, as well as Eastern medicine in general, due to the terms of traditional Chinese medicine and their differences from Western medicine, which can lead to serious problems. One of the problems of inconsistency is the lack of a unified terminological base and semantic correspondence. Problems of this kind arise due to the



ambiguity of hieroglyphs and the metaphorical nature of terms: Chinese-Russian and Russian-Chinese dictionaries only provide the common meaning of a word, which is often not used in medical theory and practice. In our opinion, the search for solutions has shown that knowledge of the terminology of Chinese medicine depends on understanding the nature of traditional medicine, as the language of Chinese medicine is a specific language used in the medical field.

Keywords: *medical terminology, microterminological system, classification of terms, standardization, and lexical-semantic groups.*

Modern medical terminology is the result of centuries of development in global medicine and medical science. Regardless of the national language in which medical terminology is represented, it includes a significant proportion of lexical and word-formation units of common linguistic origin, as well as shared structural models. This can be explained by the comprehensive and lasting influence that two classical languages of the ancient world — Ancient Greek and Latin — have exerted on medical terminology for many centuries and continue to exert to this day.

Medical terms, the formation of which must correspond to the system of clinical medical terminology, should ensure its authority, standardization, and completeness, as well as meet the needs of clinical practice. They must also establish criteria for collecting and selecting materials for the Chinese clinical terminology system in terms of the source of terms, form of description, language, content quality, and so forth. Judging by the current state of compiling and publishing surgical dictionaries, when selecting materials for the Chinese clinical medical terminology system, attention should be focused primarily on the standards of medical terminology.

The classification of medical terms presents particular interest. This procedure is also necessary for the process of translation, due to the need to select the most appropriate equivalent when translating. The classification of any terminology — and medical terminology in particular — can greatly facilitate this process. The vast volume of modern medical terminology is accompanied by an exceptional diversity of scientific concepts that it reflects, which are the subjects of numerous scientific disciplines. Taken together, they form a highly complex macro-terminological system. At the same time, each medical term functions as an element within its corresponding micro-terminological system (anatomical, histological, embryological, gynecological, dermatological, physiotherapeutic, etc.).

Every micro-terminological system is based on classifications of scientific concepts. Each term, occupying a specific place within the micro-system, is connected through fixed hierarchical or other relations with other terms of that same system. At the same time, terms belonging to different micro-terminological systems are interconnected within the macro-system level, reflecting a dual tendency of



scientific progress: on the one hand, the continued differentiation of medical sciences, and on the other, their growing interdependence and integration.

In the 20th century, the number of specialized micro-terminological systems increased significantly, expressing concepts related to the diagnosis, treatment, and prevention of diseases affecting specific organs and systems — such as endocrinology, pulmonology, urology, nephrology, sexopathology, hematology, arthrology, gastroenterology, cardiovascular surgery, abdominal surgery, neurosurgery, and others. In recent decades, highly specialized lexicons have expanded considerably in such fields as cardiology, oncology, radiology, immunology, medical virology, and hygiene sciences¹.

Within medical terminology, there are certain disagreements regarding the classification of terms. This issue can be of particular interest when translating synonymous terms.

The classification of terms, like the classification of other elements of language, represents a wide range of variations. The determining criterion for constructing a particular system is the subjective opinion of the author, based on a combination of scientific knowledge. For this reason, it is impossible to determine which classification is “correct,” as each has the right to exist. The only condition for selecting a particular classification is its suitability for a specific study².

Terminology, as noted earlier, is one of the most dynamic and rapidly expanding components of the vocabulary of any language. The process of global penetration in various fields creates the need to identify lexical-semantic groups for selecting terms within a specific domain. According to S. V. Grinev, terminology, as the science of terms, represents a collection of terms belonging to a particular branch of knowledge or production.³ Consequently, today it is relevant to develop general rules and criteria for selecting terms in a terminological system, taking into account the requirements for terms, namely:

Accuracy – the term must have a strictly defined meaning, which can be clarified through a logical definition. Closely related to accuracy is the requirement that each concept corresponds to only one term, i.e., there should be no synonymous terms with overlapping meanings;

¹ <https://studwood.ru/1389112/literatura/>

² Шкарин В.В., Григорьева Ю.В., Горохова Н.М. О культуре использования научной медицинской лексики (терминологии) // Государственная медицинская академия. – Нижний Новгород, 2004. См.: <https://www.medicum.nnov.ru/nmj/2004/1/31.php>

³ Гринев С.В. Введение в терминоведение. - М.: Московский Лицей, 1993; Гринев С.В. Исторический систематизированный словарь терминов терминоведения. 2-е изд.- М., 2001; Гринев С.В. Основы лексикографического описания терминосистем: Дисс. ... док. филол. наук. - М., 1990.



Unambiguity – the term must have its precise meaning, as specified in its definition, in all instances of its use in any text, so that users of the term do not have to determine each time which of the possible meanings is intended;

Adequacy – the content of the concept being terminologized must correspond to contemporary scientific knowledge about the relevant object;

Strictly objective designation – the term must be free from any secondary or extraneous meanings that could distract a specialist or introduce elements of subjectivity⁴.

According to the above-mentioned requirements for selecting terms by thematic lexical-semantic groups, in our view, it is necessary to highlight **adequacy (semantic correspondence)** of the content of the concept being terminologized and **objective designation**, i.e., a term possessing **unambiguity**.

This article presents lexical-semantic correspondences in medical terminology within the field of surgery. When discussing modern medical terminology, we cannot ignore the fact that it characterizes terminology as a system—a complex of interrelated terminologies across medical-biological, clinical, and pharmaceutical disciplines. Such diversity requires the **systematization of medical terms**.

For the systematization of medical terminology, according to the nomenclature classification of the **World Health Organization (WHO)**,⁵ it is proposed to distinguish three main groups (or subsystems) of terms:

1. **Anatomical (解剖学的 [jiěpōu xué de]) and histological (组织学的 [zǔzhī xué de]) nomenclature (命名法 [mìngmíng fǎ])**, covering all names of anatomical structures (visible to the naked eye) and histological structures (visible under a microscope);

2. **Clinical terminology (临床术语 [línchuáng shùnyǔ])**, which includes terms from various specialties such as therapy, surgery, obstetrics and gynecology, neurology, ophthalmology, psychiatry, etc.;

3. **Pharmaceutical terminology (药学的术语 [yàoxué de shùnyǔ])**, which includes names of dosage forms, medicinal substances, chemical nomenclature in Latin, names of medicinal plants, and so on.

⁴ Султанова Л.А. “Медицинская терминология китайского языка” nomli monografiyam nashr qilindi “Donishmand ziyosi” nashriyoti. 2023. -150 b. ISBN 978-9943-9541-0-16

⁵ Sultanova. L.A. Role of Phonetic Borrowing in The Formation of Medical Terms in The Chinese Language. The American Journal of Social Science and Education Innovations, 2020. – № 2(10). – P.223-226. (Impact Factor: 5,85№2(10)).
<https://www.who.int/zh/news/item/29-06-2020-covidtimeline>



According to the research objectives, we selected **surgical terms** belonging to the second group (subsystem) of clinical terminology (临床术语 [línchuáng shùyǔ]), which includes terms related to surgery and surgical instruments.

As examples of the surgical terms under consideration in clinical terminology, we selected the names of surgical specialties that most clearly reflect the lexical-semantic composition, in particular:

The term “**abdominal surgery**” (腹部外科 fùbù wàikē)⁶ and its related compound 腹部外科手术器械 (fùbù wàikē shǒushù qìxiè) – surgical instruments for abdominal surgery – consist of:

- 腹部 fùbù – abdomen; belly; ventral,
- 外科 wàikē – surgery; surgical department; surgical.

Together, 腹部外科 (fùbù wàikē) forms “**abdominal surgery**”, while 腹部外科学 (fùbù wàikēxué) + 外科学 (wàikēxué) refers to the science or field of abdominal surgery.

- the term “**thoracic surgery**” (胸外科学 xiōngwài kēxué)⁷ and its lexical composition include:

胸 xiōng – chest; thorax; heart; spirit; feelings; front side

- 外 wài – outer; external; outside; beyond
- 科学 kēxué – science

胸外科医师 xiōng wàikē yīshī – thoracic surgeon (胸 xiōng – chest, heart, spirit, feelings; 外 wài – outer, external; 科 kē + 医师 yīshī – physician, doctor).

The term “**maxillofacial surgery**” (口腔颌面外科 kǒuqiāng hémiàn wàikē) consists of:

- 口腔 kǒuqiāng – oral cavity; dental
- 颌面外科 hémiàn wàikē – maxillofacial surgery

⁶ 北京：人民卫生出版社，1990-1802页 — ISBN 7-117-01318-4. Пекин: Народная гигиена, 1990. -1802 с. ISBN 7-117-01318-4; Ван Чжунцзя 王重稼 и др. 王重稼 Русско-китайский медицинский словарь 俄汉医学词汇 Пекин: Жэньминь вэйшэн чубаньшэ, 1989 (2-е изд.). 1547 с. 北京：人民卫生出版社，1989（二版）. ISBN 7-117-00707-9.

⁷ . Sultanova L.A. Composition as A Way of Forming the Terms of Medical Instruments and Surgical Devices in Modern Chinese. International Journal of Multidisciplinary Research and Analysis. Volume 04 Issue 01, January 2021. – P. 24-27. ISSN (print): 2643-9840, ISSN (online): 2643-9875. (Impact Factor: 7,13№11).

Ван Чжунцзя 王重稼 и др. 王重稼 Русско-китайский медицинский словарь 俄汉医学词汇 Пекин: Жэньминь вэйшэн чубаньшэ, 1989 (2-е изд.). 1547 с. 北京：人民卫生出版社，1989（二版）. ISBN 7-117-00707-9. Sultanova L.A. 汉-乌-俄医学词典 (Xitoycha-uzbekcha-ruscha tibbiyot lug‘ati). – T.: OOO ELITEPRINT, 2012. – 315 b.



The examples above—names of surgical specialties—indicate the presence of a lexical structure that includes the corresponding anatomical organ. Additionally, we observe the formation of terms through **compounding**:

- **Neurosurgery (神经外科 shénjīng wàikē)**⁸ consists of: 神经 shénjīng – nerve; nervous system + 外科 wàikē – surgical department + 医师 yīshī – physician, doctor

- **Plastic surgery (成形外科学 chéngxíng wàikē)** consists of: 成形外科 wàikē chéngxíng – plastic surgery + 学 xué – study, science; 成形 chéngxíng – plastic + 外科 wàikē – surgery + 医师 yīshī – physician, doctor

- **Transplantology (移植术 yízhíshù):** 移 yí – move, transfer + 植 zhí – transplant + 术 shù – operation; e.g., 皮移植 píyízhí – skin transplantation + 术 shù – operation; 心脏移植 xīnzàng yízhí – heart transplantation + 术 shù – operation

Thus, medical terminology represents one of the microsystems within the lexicon of modern Chinese. The examples considered indicate that terms related to surgery most often include 外科 wàikē – surgery, surgical. Therefore, it can be said that the naming of surgical specialties is formed with the participation of 外科 wàikē – surgery.

Consequently, the lexical formation of terms in surgical specialties, as illustrated in our examples, demonstrates the importance of studying their correct designations, methods of enrichment and expansion, as well as the regular editing, selection, and systematization of terms in healthcare.

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⁸ 北京：人民卫生出版社·1990-1802页 — ISBN 7-117-01318-4. Пекин: Народная гигиена, 1990. 1802 с. ISBN 7-117-01318-4; Ван Чжунцзя 王重稼 и др. 王重稼 Русско-китайский медицинский словарь 俄汉医学词汇 Пекин: Жэньминь вэйшэн чубаньшэ, 1989 (2-е изд.). 1547 с. 北京：人民卫生出版社·1989 (二版) . ISBN 7-117-00707-9.



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