

METHODOLOGICAL FOUNDATIONS OF TEACHING THE TOPIC OF PREFIXES IN MEDICAL TERMINOLOGY

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Abstract: This article reveals the methodological foundations of teaching Latin prefixes in the process of medical education. The study analyzes the role of prefixes in the system of medical terminology, their semantic and functional features, as well as innovative methods that contribute to the development of lexical competence of future medical professionals. The effectiveness of using visual materials (tables, charts, flashcards with images), interactive tasks, and communicative approaches in teaching prefixes is substantiated. The results show that learning medical terms based on prefixation promotes meaningful assimilation, independent determination of meanings, and the development of skills for working with medical texts.

Keywords: Latin language, prefix, medical terminology, methodology, medical education, lexical competence, innovative methods, interactive tasks, visual materials, prefixation.

Introduction. Medical terminology is characterized by a complex structure, multilayered organization, and historical foundation. A significant part of medical terms is formed using prefixes and suffixes—word-forming elements attached to the root of the word. These elements constitute the main means of word formation in medical vocabulary, expand the semantic potential of terms, and ensure their structural stability. In linguistics, prefixes are viewed as elements expressing meanings of time, place, direction, or negation. When used separately, prefixes are often written with a hyphen. In medical terms, a prefix does not change the basic meaning of the root but specifies, narrows, or expands its meaning. At the same time, some Greek prefixes (for example, para-) acquire additional metaphorical meanings, indicating pathological conditions or functional deviations. Suffixes are elements that are not used independently but form new words when attached to a stem. They possess grammatical and lexical properties and play an important role in the categorization and classification of medical terminology. Latin and Greek suffixes contribute significantly to the systematization of medical terminology. This article examines from a scientific and methodological perspective the linguistic foundations of using prefixes and suffixes in medical terminology, their types, patterns of use, and their role in teaching methodology.

Object of Study and Materials

The object of the study consists of Latin medical terms, particularly the prefixes and suffixes found in them. The material includes terms encountered in textbooks on anatomy, physiology, clinical terminology, pathological anatomy, and pharmacology.

Research Methods:

- Lexico-semantic analysis – to identify word-forming meanings of prefixes and suffixes;
- Morphological analysis – to study the structure of derived terms;
- Comparative analysis – to identify differences between Latin and Greek word-forming elements;
- Structural analysis – to determine the internal structure of a term;
- Methodological analysis – to improve the process of teaching terminology based on prefixes and suffixes to medical students.

Main Part



Types of Latin Prefixes and Their Use

Spatial prefixes:

- **intra-** — internal: intravenosus — intravenous
- **extra-** — external: extrauterinus — extrauterine
- **infra-, sub-** — lower, under: sublingualis — sublingual
- **super-, supra-** — upper, above: suprarenalis — suprarenal

Prefixes of direction:

- **ad-** — movement toward (adductor)
- **ab-** — movement away (abductor)

Prefixes of time:

- **ante-, prae-** — before (antenatalis)
- **post-** — after (postnatalis)

Prefixes indicating proximity or surrounding:

- **peri-, para-** — around, near
pericardium — pericardial sac
paranasalis — paranasal

Prefixes of action, repetition, change:

- **re-** — repeated action (reconstructio)
- **trans-** — transfer, movement (transplantatio)

Prefixes of negation or opposition:

- **im-, in-** — absence (impotentia)
- **contra-** — against (contratussim)

Types of Latin Suffixes and Their Functions

Diminutive suffixes:

- **-ulus/-ula/-ulum** – lobulus, venula, lingula
- **-culus/-cula/-culum** – ossiculum, vasculum
- **-olus/-ola** – arteriola, bronchiolus
- **-ellus/-ella** – lamella, cerebellum

Suffixes of process and action:

- **-io** – operatio, palpato, percussio
- **-or** – performer, agent: elevator, compressor, extensor

Suffixes of result:

- **-ura** – fractura, sutura, incisura

Suffixes of belonging and relation:

- **-alis, -aris** – vertebralis, maxillaris, costalis, alaris

Suffixes of resemblance:

- **-ideus** – deltoideus, thyroideus
- **-formis** – cruciformis, piriformis

Suffixes indicating carrying or containing:

- **-fer** – sudorifer, seminifer

Suffixes indicating a causative agent:

- **-gen** – pyogenus, carcinogenus

Analysis and Discussion

The analysis demonstrates that Latin prefixes are more commonly used in anatomical terminology, while Greek prefixes prevail in clinical disciplines. Diminutive suffixes are essential for the stratification of anatomical structures; qualitative suffixes form the basis of classificational terminology. Terms formed by suffixes often create hierarchical series:



arteria → arteriola,
bronchus → bronchiolus.

Table of Basic Latin Prefixes

Prefix	Meaning	Latin examples	Medical terms	Explanation
a-, an-	absence, negation	an-oxia	anemia	Lack of function
ab-, abs-	removal, distancing	abductio	abnormal	Movement away from center
ad-	movement toward	adductio	adrenal	Movement toward center
ante-	before	antebrachium	antenatal	Anatomical position
post-	after	postmortem	postnatal	Temporal relation
in-, im-	inside	implantatio	injection	Direction of action
inter-	between	intercostalis	intercellular	Located between structures
intra-	inside	intravenosus	intracranial	Medical procedures
sub-	under	sublingualis	subcutaneous	Position below organ
super-, supra-	above	suprarenalis	superficial	Upper layer
trans-	through	transversus	transfusion	Movement, transfer

Teaching these elements in medical education significantly improves students' skills in morphemic analysis, the speed of memorizing terms, the ability to interpret new terms independently, and translation competence.

Results. The study leads to the following scientific and methodological conclusions:

- Prefixes and suffixes are the main means of word formation in medical terminology.
- Their role ensures semantic accuracy and terminological consistency.
- Learning prefixes and suffixes enhances students' comprehension and translation of medical terms.
- The teaching process should address interfixes, diminutive suffixes, and relational suffixes separately and methodologically.

Recommended Teaching Methods:

1. **Picture-based analysis** – using anatomical images to deduce the meaning of a prefix.
2. **Table completion** – filling in missing prefixes.
3. **Matching activity** – matching prefixes with their meanings.
4. **Gamification** – prefix flashcards for memory training.

Choose the prefix by meaning:

1. ___cutaneous — under the skin (answer: **sub-**)
2. ___venous — inside the vein (answer: **intra-**)
3. ___normal — outside the norm (answer: **ab-**)

Form new terms by adding a prefix:

ductio → _____ ductio
renal → _____ renal
cellular → _____ cellular

Conclusion. Latin prefixes and suffixes play an essential role in structuring medical terminology. They form new meanings by attaching to stems and ensure the continual expansion of the terminological system. For future medical professionals, thorough knowledge of these elements is crucial for correct understanding, practical application, and accurate translation of scientific



texts. Therefore, studying the morphological system of Latin, especially prefixes and suffixes, is strategically important for developing lexical and terminological competence among future medical specialists.

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