

# LATIN LANGUAGE AS A MEANS OF INCREASING THE EFFECTIVENESS OF TEACHING STUDENTS OF MEDICAL EDUCATIONAL INSTITUTIONS

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**Abstract.** *The main goal of the article is to show the basics of terminological competence of a pharmacist: the ability and readiness to use medical terminology in professional activities, when studying professional modules and general professional disciplines. Pharmacy students are exposed to a large number of anatomical and clinical medical terms in Latin during their studies, so the article focuses on this topic. The grammar of the Latin language is considered only to the extent necessary for the translation and understanding of medical terms. Pharmaceutical nomenclature names and formulations are considered briefly, since they are not widely used in the professional activities of specialists in this profile. The article is provided with a list of term elements and frequency segments, knowledge of which is necessary for the correct writing and understanding of the information contained in the names of medicinal products.*

**Keywords:** *term elements, analysis, medical terms, theory and teaching methods.*

**Introduction:** Learning any profession is impossible without mastering a professional language, in which there are special words and phrases called terms to denote numerous objects, phenomena, processes, and actions. Without understanding and memorizing the terms, it is impossible to understand the content of special disciplines studied in medical or pharmaceutical colleges and schools. Indeed, in each term, in the definition of its meaning, the corresponding scientific concept is reflected. The terminology of any science reflects the system of its scientific concepts. Mastery of such a system distinguishes a representative of one specialty from another - a surgical nurse from a nurse in a pediatric hospital, a paramedic from a dentist, a general nurse from a pharmacist. Each of the clinical disciplines has its own system of terms, somewhat different from the others: pharmacological, obstetrics and gynecology, pharmaceutical, therapeutic, psychiatric, ophthalmological, dental, etc.

These and some other terminological systems reflect scientific concepts of diagnostics, methods of treating diseases, instruments, technical devices and instruments used in medicine. At the same time, clinical terminology is based on the terminology of such fundamental disciplines as human anatomy and physiology, pathological anatomy and physiology. The structure of the human body, the shape and relationship of anatomical organs, formations, their function in normal and pathological conditions - all this has its own special designations, i.e. terms. Therefore, students need to understand and remember many terms from the above theoretical disciplines. This also applies to such a system of special names as the nomenclature of medicines. The future nurse, paramedic, and pharmacist will have to constantly use the names of medications. Taken together, all the above-mentioned terminologies of different academic disciplines represent a single whole - medical terminology. In the terminology of any modern field of knowledge, a significant mass

of special words is made up of borrowings from the classical languages of the ancient world - ancient Greek and Latin.

Many of the terms of ancient Greek or Latin origin were borrowed by European languages at different times: some - back in the Middle Ages, others - during the Renaissance, others - in modern times, directly from the surviving works of writers, doctors, philosophers who lived during the times of Ancient Greece Rome. However, a much larger number of special words were created artificially from the material of ancient languages on the basis of modern languages: Western European, Slavic, including Russian. This process continues in our time. Therefore, as a rule, special words of ancient Greek and Latin origin are international, so-called internationalisms: their form and content are usually the same and are easily identified by specialists. The generally accepted names of many sciences and fields of knowledge owe their origin to classical languages. For example, anatomy (from the Greek *anatome* - dissection, dismemberment), biology (Greek *bios* - life + *logos* - science, teaching), physiology (Greek *physis* - nature + *logos*), surgery (Greek *cheir* - hand + *ergon* - business, action), therapy (Greek *therapeia* - care, care), pediatrics (Greek *Pais*, *paidos* - child + *iatreia* - healing), psychiatry (Greek *psyche* - soul, mental properties + *iatreia*), gynecology (Greek *gyne*, *gynaikos* - woman + *logos*), dentistry (Greek *stoma*, *stomatos* - mouth + *logos*), pharmacology (Greek *pharmakon* - medicine + *logos*), etc. Names of entire areas of professional activity, such as medicine (lat. *medicina* - healing, *medicus* - doctor), sanitation (Latin *sanitarius* - promoting health), hygiene (Greek *hygieinos* - bringing health, healing; *Hygieia* - goddess of health among the ancient Greeks), pharmacy (Greek *pharmakeia* - making medicines) and much more the other received international distribution thanks to the general cultural heritage of the ancient Greek and Latin languages.

It follows from this that in order to successfully master the subjects provided for in the curricula of medical and pharmaceutical schools, future medical workers must actively master elements of medical terminology of Greco-Latin origin in Latin classes. Knowledge of elements of medical terminology is also necessary for mutual understanding between specialists (doctors, medical personnel) speaking different national languages. Latin terms are pronounced, written according to the rules of Latin phonetics and spelling and constructed in compliance with the rules of Latin grammar. There are international lists of terms, the so-called international nomenclatures in Latin: anatomical, histological, embryological, microbiological. International nomenclatures of tumors have been created, where most names are Latin. There is experience in creating special dictionaries in European languages for various clinical disciplines, where the Latin term is the main one.

In our country and in a number of other countries, it is customary to write prescriptions in Latin. Each new drug is officially approved simultaneously in Russian and Latin. In the official collection of standards for 6 drugs, each article about a drug or medicinal raw material is given in Russian and Latin. Thus, by the nature of his professional activity, a medical worker at any level must acquire an appropriate amount of basic information on the Latin language, which will always help him easily navigate the content of professional terminology. Latin belongs to the Italic branch of the group of Indo-European languages. It got its name from the Latins, a tribe that lived in ancient times in Latium, one of the regions of the Apennine Peninsula. The center of this area was the city of Rome, which later became the capital of the slave-owning Roman Republic, and from the end of the 1st century. BC e.—Roman Empire. As Roman rule expanded, so did the influence of the Latin language. Only in the depths of the Mediterranean basin did Latin give way to Greek.

Moreover, the Latin language itself, from the very beginning of contacts between Rome and the states of Greece, experienced a noticeable influence of the Greek language. Literary Latin borrowed many words from it. A huge number of Greek words in different eras were Latinized, that is, written in Latin letters; words acquired grammatical forms of the Latin language and in this form were included in international nomenclatures. For more than one and a half thousand years, Latin was the language of culture and writing, the only language of science in almost all European countries. In Russia, Latin was also the language of science, scientific literature, and training for representatives of various professions, including future doctors and pharmacists, for many decades.

Many scientific works of M.V. Lomonosov, N.I. Pirogov and other Russian doctors and naturalists were written in Latin:

- aeth- [ethyl] ethyl, ethyl group.
- meth- [met] methyl, methyl group.
- phen- [fen] phenyl, phenyl group.
- thi(o)- [thio] sulfur (thiosalts, thioacids).
- sulfa- [sulfa] antimicrobial sulfonamides.
- benz- [benz] benzene group.
- chlor- [chlorine] chlorine.
- phosph- [phosphate] derivatives of phosphoric acid.
- oxy- [oxy] oxygen, oxidation processes.
- hydr- [hydr] water, hydrogen, hydroxyl group.
- phth(or), -flu(or)- [fluorine] fluorine, derivatives of hydrofluoric acid.
- acet- [acet] vinegar.
- amid-[amide] amido group.
- amin- [amine] amino group.
- fer(r)- [fer] iron.
- nitr- [nitr] nitric, nitrous acid.
- naphth(a)-, -phtha- [naphtha, phtha] medicinal oil, naphthalan derivatives.
- form- [form] formic acid.
- fur- [fur] derivatives of nitrofuran.
- camph- [camph] camphor.
- phthal- [phthal] derivatives of phthalic acid.
- cycl(o)- [cycle] cyclic compounds.
- zol-, -zon-, -zid-, -zin-, -az-, zepam- nitrogen group.
- as- enzyme;
- az-, -zy(m)-, -zy(n)- in the names of enzyme preparations from gr. zyme – yeast, leaven.
- yl- hydrocarbon, acid radical.
- syn-, -sym- connection, connection.
- a-, -an- absence, negation hypo- decrease hyper- increase dys- disorder, disorder.
- anti- against, counteraction.
- poly- many pan(t)- all -alg-,
- dol- painkillers.
- salicyl- [salicyl] analgesics with anti-inflammatory effect.
- anaesth(es)- [anesthesia] painkiller.

-cain- [cain] local anesthetic.  
-morph- [morph] narcotic analgesics, painkillers of the opium group and derivatives of its main alkaloid.  
-morphine -pyr- [pyr] antipyretic, causing a decrease in temperature.  
-phlog-, -flog- [flog] anti-inflammatory.  
-vas-, -ang(i)- [you, ang] vasodilator, antispasmodic.  
-pres(s)- (press), -ten(s) [tens] - antihypertensive, hypotensive.  
-haem(at)- [hemat], -aem- [em] - hematopoietic, hemostatic, i.e. affecting the blood system.  
-thromb- [thromb], -coum-[cum], -cum-, cumar-, -arol- anticoagulants.  
-mal- [small], -somm- [somm], -dorm-[dorm], -nyc- [nickname], -al[al], -hypn-[hypn] sleeping pills -sed- [sed], -val - [val] soothing -aller(g)- [aller] antiallergic.  
-barb- (barb) barbiturates, hypnotics -tranqu- [trank], -stres(s) [stress], -atraz- [atraz] psychosedative, psychotropic.  
-asthm- [asthm] anti-asthmatic.  
-chol- [hol], -bil- [bil] choleric, radiopaque for the study of the biliary tract.  
-cid- [cid] antimicrobial. -emet- [emet], -vom(it)- [vomit] antiemetic -fung- [fung], -myc(o)- [mic] antifungal -helm(int)- [helminth], -verm- [verm] anthelmintic.  
-lys- [lys], -lyt- [lit] destroying, liberating.  
-phthi(s)- [phtiz] anti-tuberculosis -lax [lyaks]-, -pur- [pur] - laxatives.  
-orex- [orex] appetite suppressants.  
-sept- [sept] - disinfecting.  
-ur- [ur] - diuretics.  
-spect- [spect], -vid- [view], -trast- [trust], -gnost- [gnost], -graph- [graph], -graf- [graph], -io- [io] diagnostic - cillin- [cillin] antibiotics – penicillins.  
-cyclin- [cyclin] antibiotics – tetracyclines. -mycin- [micin] antibiotics produced by radiant fungi, strains -ceph-, -cef-, -keph- [ceph] antibiotics – cephalosporins.  
-bio- [bio] biostimulants, antibiotics -cort(ic)- [cortico]corticosteroids, adrenal hormones and their synthetic analogues.  
-oestr- [estr], -gyn- [gin], -gest- [gest] estrogenic. -andr [andr] -, -vir- [vir], -test- [test], -ster- [ster], -stan- [stan] androgenic.  
-(ana)bol- [anabolic] anabolic steroids. -hepat- [gepat] liver -neph- [neph] kidney.  
-bronch- [bronchus] bronchus -cor- [cor], -card- [card], -digit- [digit], -git- [git] cardiac.  
-arthr- [arthr] for joint disease.  
-derm(at)- [dermat] skin.  
-enter-[enter], -gastr- [gastr] gastrointestinal.  
-ophth(alm)- [ophthalm] ophthalmic -ichthy- [ichthy] preparations obtained from the remains of marine fish.  
-api(s)- [apis] bee preparations poison and other products produced by bees.  
-vip(e)r- [viper] preparations of snake venom.  
-glyc- [glyc], -gluc- [glitch] related to sugar, glucose.  
-phys- [physical] nature -phyt- [fit] plant -phyll- [fil] leaf -anth- [ant] flower.

Even after national languages were gradually supplanted in Europe in the 19th century. Latin from scientific literature, it continued to play, along with ancient Greek, the role of the main international source for denoting words and entire phrases of new phenomena discovered for the

first time. Both in distant times in the past and in the modern era, the Russian language is enriched by vocabulary of ancient Greek and Latin origin, without which it is simply impossible to imagine the life of a modern person. For example, the following words are of Latin origin: global, progress, culture, civilization, agitator, university, student, laboratory assistant, assistant, lecturer, lecture, audience, course, scholarship, director, rector, etc. Despite the fact that the Latin language is called “dead” in the sense that it has long ceased to be spoken, i.e., a means of communication, its phonetics, graphics, elements of grammar, vocabulary and word-formation means, along with the vocabulary and word-formation means of the ancient Greek language, continue live in the professional language of medical workers. In its historical development, the Latin language went through several stages:

1. The period of archaic Latin: from the first surviving written 7 monuments to the beginning of the 1st century. BC. The oldest monuments date back to around the 6th century. BC, but there are very few of them. The number of written monuments increased significantly starting from the 3rd century. BC. This is due to the growing power of Rome, which at that time conquered most of Italy. The conquest of Greek cities in southern Italy led to the penetration of elements of Greek culture and education into Roman society, which stimulated the appearance of literary works in Latin. Works in Latin on natural science and medical issues date back to this time, for example, Cato’s work “De re rustica” (“On Agriculture”), in which many words of a medical nature are found, taken from the spoken language.

2. The period of classical Latin: from the first speeches of Marcus Tullius Cicero (81-80 BC) to the death of Emperor Octavian Augustus (14 AD). In Cicero's prose, the Latin language acquired the grammatical and lexical norm that made it “classical”. During this period, the Latin language reached perfection. There are many literary works by outstanding writers, philosophers, poets, scientists, pharmacists, and pharmacologists.

3. Post-classical Latin period: I-II centuries. AD This period is marked by a wide variety of scientific literature, particularly medical literature. The most famous works of this time are the works of Aulus Cornelius Celsus “On Medicine” and the multi-volume works of the Greek philosopher, scientist and physician Claudius Galen, who lived and worked in Rome. His writings, devoted to scientific and practical issues of anatomy, etiology and treatment of various diseases, preparation of all kinds of medicines, were the pinnacle of ancient medicine after Hippocrates and had a significant influence on generations of doctors many centuries later.

4. Late Latin period: III-VI centuries. - the era of the late Empire. Ancient traditions in literary creativity are fading away. A significant factor in spiritual life is the spread of Christianity and the appearance of Christian literature in Latin. In 395 AD. The Roman Empire split into two empires - Eastern and Western. In the Eastern, Byzantine Empire, the Greek language took a dominant position, and in the Western - Latin. After the fall of the Western Empire in the 5th century and the invasion of the barbarians, Rome lost its leading political role. From the 6th to the 8th century, each region of the former Roman Empire lived its own separate life. Linguistic differences between the former Romanesque (from Roma - Rome) provinces increased more and more.

The Latin language in its colloquial variety - folk Latin, was the linguistic basis for new national languages, united under the general name of Romance. These include Italian, French, Spanish, Portuguese, Romanian, and Moldavian. Despite the fact that Latin as such gradually ceased to be spoken, it did not cease to be significant. In the Middle Ages, Latin was the language

of instruction in both lower and higher schools. Legislative, judicial and diplomatic acts were written mainly in Latin. Latin was the language of the Catholic Church. The Latin language played an exceptional role during the Renaissance, when humanists, who were representatives of the progressive movement in early Western European culture, showed great interest in antiquity and writers, using the Latin language, sought to imitate ancient models, especially the language of Cicero. Thomas More in England, Erasmus of Rotterdam in Holland, Tommaso Campanella in Italy wrote in Latin. During this period, the Latin language became the most important means of international cultural and scientific communication. Until the 18th century, Latin remained the language of diplomacy and the international language of science. During the Renaissance, the foundations of international medical terminology were laid. All prominent scientists of that time wrote their works in Latin, for example, the Italian anatomists Vesalius and Eustachius, the biologist and anatomist Malpighi, the English physician Harvey; A number of works by M.V. Lomonosov and the great Russian surgeon N.I. Pirogov were written in Latin. Until 1866, Russian civil and military pharmacopoeias were published in Latin (pharmacopoeia is a set of standards and rules for determining the quality of medicines). Currently, official documents and scientific works are not written in Latin, but this language, together with ancient Greek, remains the main international source for the formation of new natural science and medical terminology in modern languages.

**Conclusion:** So, even the 21st century, when the achievements of science and the development of technology are acquiring more advanced forms every year, giving new impetus to thought processes as new opportunities and means emerge for transforming and connecting the external awareness of the surrounding reality with the internal processes of mental activity, every specialist who does not know basics of his profession cannot be a competitive specialist.

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