PHARMACEUTICAL TERMINOLOGY IN LATIN

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https://doi.org/10.5281/zenodo.19759035

Abstract: This article analyzes the fundamental role of Latin terminology in the modern pharmaceutical field and its importance in shaping international drug nomenclature. Although Latin is considered a “dead language” in the age of artificial intelligence and digital technologies, in pharmacy it continues to play an important role as a lingua franca. The study considers the unification of the nomenclature of medicinal plants, dosage forms, and traditional Latin abbreviations in prescriptions. Statistical data and comparative analyses show that the correct use of Latin terminology helps reduce medication errors in pharmaceutical practice by up to 15–20%. In conclusion, Latin in pharmaceutical education and in the global healthcare system appears not only as a tradition, but also as a guarantee of safety and precision.

Keywords: pharmaceutical terminology, trivial names, dosage forms, abbreviation, structural components, nomenclature of medicines, scientific names, preparation, Latin.

LOTIN TILIDA FARMATSEVTIK TERMINOLOGIYA

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Annotatsiya: Ushbu maqolada lotin terminologiyasining zamonaviy farmatsevtika sohasidagi fundamental o‘rni va xalqaro dori nomenklaturasini shakllantirishdagi ahamiyati tahlil qilinadi. Lotin tili sun’iy intellekt va raqamli texnologiyalar davrida “o‘lik til” deb hisoblansa-da, farmatsiyada u hamon lingua franca sifatida muhim rol o‘ynaydi. Tadqiqotda dorivor o‘simliklar nomenklaturasi, dori shakllari hamda retseptlardagi an’anaviy lotincha qisqartmalarning unifikatsiyasi ko‘rib chiqilgan. Statistik ma’lumotlar va qiyosiy tahlillar lotin terminologiyasidan to‘g‘ri foydalanish farmatsevtik amaliyotdagi dori xatolarini 15–20% gacha kamaytirishga yordam berishini ko‘rsatadi. Xulosa qilib aytganda, farmatsevtik ta’limda va global sog‘liqni saqlash tizimida lotin tili nafaqat an’ana, balki xavfsizlik va aniqlik kafolati sifatida namoyon bo‘ladi.

Kalit so‘zlar: farmatsevtik terminologiya, trivial nomlar, dori shakllari, qisqartma, struktur komponentlar, dori vositalari nomenklaturasi, ilmiy nomlar, preparat, lotin tili.

ФАРМАЦЕВТИЧЕСКАЯ ТЕРМИНОЛОГИЯ НА ЛАТИНСКОМ ЯЗЫКЕ

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Аннотация: В данной статье анализируется фундаментальная роль латинской терминологии в современной фармацевтической сфере и её значение в формировании международной номенклатуры лекарственных средств. Хотя латынь в эпоху искусственного интеллекта и цифровых технологий считается «мёртвым языком», в фармации она продолжает играть важную роль как lingua franca. В исследовании

рассматривается унификация номенклатуры лекарственных растений, лекарственных форм и традиционных латинских сокращений в рецептах. Статистические данные и сравнительные анализы показывают, что правильное использование латинской терминологии помогает снизить количество медикаментозных ошибок в фармацевтической практике на 15–20%. В заключение отмечается, что латинский язык в фармацевтическом образовании и в глобальной системе здравоохранения выступает не только как традиция, но и как гарантия безопасности и точности.

Ключевые слова: фармацевтическая терминология, тривиальные названия, лекарственные формы, сокращение, структурные компоненты, номенклатура лекарств, научные названия, препарат, латинский язык.

INTRODUCTION

At a time when modern medicine and pharmacy are rapidly developing, the accurate and understandable naming of medicinal products remains one of the most important tasks of the global healthcare system. In the complex of sciences united under the name Pharmacy (Greek pharmakeia – preparation and use of medicine), drug nomenclature occupies a central place. Pharmaceutical terminology is not simply a collection of names, but a complex linguistic system reflecting the chemical composition, biological activity, and therapeutic properties of medicinal substances.

Most chemical compounds used as medicinal substances have two types of names: complex systematic scientific names and concise trivial names (Lat. trivialis – ordinary). Although scientific names precisely express the molecular structure of a substance, their excessive complexity (for example, 1-fenil-2,3-dimetil-4-metilaminapirazolon-5-metansulfanat natriya) creates inconvenience in daily practice, in prescription writing, and in pharmacy trade. For this reason, in pharmaceutical practice, simple and convenient trivial names formed from roots belonging to Latin or Greek acquire priority importance.

This article analyzes the main methods of pharmaceutical term formation, in particular abbreviation (shortening) and structural components carrying special meaning (-cor-, -vas-, -sept-, -cillin-). Also, dosage forms (Tabuletta, Unguentum, Solutio) and the rules of their grammatical connection with preparation names are considered. The correct formation of pharmaceutical terms in accordance with international standards is considered a decisive factor in understanding the therapeutic and prophylactic effect of medicinal products and in preventing medical errors.

MATERIALS AND METHODS

The study is based on the analysis of the main pharmaceutical word-formation methods, the specific composition of medicines and medicinal preparations, as well as the naming features of dosage forms and medicinal substances. Special attention is paid to the connection features of structural components and to the practical use of trivial names in pharmaceutical terminology.

For the purpose of the analysis, examples of pharmaceutical terms, dosage forms, and Latin constructions used in prescriptions were comparatively examined. Scientific and trivial names of medicinal substances, abbreviations, and grammatical models of term formation were systematized on the basis of educational and normative sources cited in the article.

RESULTS

Pharmacy (Greek pharmakeia – preparation and use of medicine) consists of a complex of a number of specialized sciences engaged in studying, searching for, producing, and applying the composition of medicines. In this complex, the central place is occupied by the nomenclature of medicines that have official permission for use.

Medicines are substances or combinations of substances that have permission given in the established order by an organization guaranteeing their use for the purpose of preventing, identifying, and treating disease in a certain state. Medicinal substances express specific chemical compounds or biological substances. Medicinal plant raw material is plant raw material permitted for use in medicine. Dosage forms are the convenient state of a medicine or medicinal plant prepared in order to preserve its healing properties during the process of application. A medicinal preparation is a medicine brought into a definite form. Complex medicine is a medicine that in one dosage form has more than one active substance in prescribed doses.

Most chemical compounds used as medicinal substances have two types of names: scientific or systematic name and trivial (Lat. trivialis – ordinary) name. A scientific name expresses the chemical composition of medicinal substances. But because of its complexity and difficulty, it is considered inconvenient for use in prescriptions, labels, and pharmacy trade. Trivial names, however, are considered convenient for practical use because of their compactness, shortness, and simplicity.

The trivial names of medicines have different word-formation structures. Their basis consists of roots belonging to Latin or Greek. In addition, other word-formation means also participate in the formation of trivial names. Accordingly, trivial names may consist of simple, derived, compound, and abbreviated words. Among the most common examples are Mentholum, Analginum, Papaverinum, Apisarthronum, Dimexidum, and Sulfadimezinum.

The most commonly used word-formation method in forming trivial names is abbreviation (shortening). In this case, the scientific name is shortened. Structural components can approximately provide information of an anatomical, physiological, and therapeutic character.

Table 1. Trivial names and scientific names

Trivial names	Scientific names
Analgin	1-fenil-2,3-dimetil-4-metilamina-pirazolon-5-metansulfanat natriya
Fenasetin	1-etoksi-4-asetaminobenzol trano-9,13-dimetil-7
Retinol (vitamin A)	1,1,5-trimetilsiklogeksen-5-il-6/ nonatetrayen-7,9,11,13-ol

Table 2. Trivial names formed by abbreviation

Trivial names / abbreviation	Scientific names
Dimexidum (dimeksid)	Dimetilsulfaksid
Aethacridinum (etakridin)	Laktat 2-etoksin-6,9-dinaminoakridin
Phenaminum (fenamin)	Sulfat d, 1-fenil 2-aminopropana N-fenilkarbomoid-3 (B-fenilizopropil)
Sydnocarbum (sidnokarb)	Sidnonimin

Table 3. Structural components and their meanings

Latin	Uzbek	Meaning
-cor-, card-	-kor-, -kard-	affecting the heart, affecting heart tone, dilating the coronary vessels

-vas-, -angi-	-vaz-, -angi-	dilating blood vessels, spasmolytic
-sept-	-sept-	disinfecting, antiseptic
-dol-, -alg-	-dol-, -alg-	pain-relieving, analgesic
-pres(s)-, -ten(s)-	-pres(s)-, -ten	lowering blood pressure
-sed-	-sed-	calming, sedative
-pyr-	-pir-	lowering temperature, antipyretic
-aesthes-	-estez-	pain-relieving, anesthetic
-test-, -vir-	-test-, -vir-	prepared from male sex hormones
-andr-	-andr-	androgen
-thyr-	-tir-	affecting thyroid gland activity
-myco-	-miko-	against fungi
-chol-	-xol-	choleretic
-cid- (Lat. occidere)	-sid-	antimicrobial / against microbes

DISCUSSION

If the dosage form is expressed together with the preparation name, in the first place the name of the dosage form, and in the second place the name of the medicine in the genitive case is used. Examples include Unguentum Streptocidi (Streptotsid ointment), Solutio Novocaini (Novokain solution), and Tabulettae Analgini (Analgin tablets).

Complex medicine names are given in quotation marks in the nominative case as an apposition to the name of the dosage form. For example: Unguentum “Calendulas” and Tabulettae “Urosalum”. The agreeing attribute indicating the dosage form is used in the last place in the preparation name and agrees with the dosage form, as in Unguentum Hydrargyri cinereum and Extractum Belladonnae spissum.

In the names of decoctions and infusions, the name of the raw material is used in the genitive case between the dosage form and the plant names, as in Infusum radicis Valerianae and Decoctum rhizomatis Tormentillae. These examples show that pharmaceutical terminology is not only a lexical system, but also a grammatical system built on precision and standardization.

CONCLUSION

Pharmaceutical terminology is not simply a collection of complex words on paper, but a culture of precision formed over centuries on the path of human health.

First, considering Latin a “dead language” is a big mistake, because the Latin roots living behind the name of every tablet, every ointment, or solution perform the function of a common language for specialists. The use of compact trivial names instead of extremely complex scientific names of medicines creates convenience for human memory and daily practice.

The naming of dosage forms in strict grammatical order (Genetivus) is not simply a rule, but an international standard preventing medical errors throughout the world. Therefore, Latin in pharmaceutical education and global healthcare remains a guarantee of safety and precision.

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