INTERNATIONAL MULTI DISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
eISSN 2394-6334 Impact factor: 7,854 Volume 12, issue 12 (2025)

CLAUDIUS GALEN.GALENIC AND NEW-GALENIC PREPARATIONS

Azizbek Khusanov Raximberdi ugli

Lecturer

Qobulova Dilnuraxon Qahramonjon kizi

Student

Fergana Medical Institute of Public Health,

Uzbekistan, Fergana

Abstract: Claudius Galenus (c. AD 129 – c. 216), often known in English as Galen of Pergamon, was a prominent Roman physician, surgeon, and philosopher of Greek ethnicity. He is considered one of the most accomplished medical researchers of antiquity, whose theories dominated European medicine for over 1,500 years.

Training: He began his medical education in Pergamon at the local Asclepieion, a temple dedicated to the Greek god of healing, Asclepius. Between the ages of 16 and 28, he traveled extensively for further study in Smyrna, Corinth, Crete, Cyprus, and the great medical center of Alexandria, Egypt.

Career and Contributions

Physician to Gladiators: Upon returning to Pergamon in 157 AD, Galen became the chief physician to the gladiator school, gaining extensive experience in treating wounds.

Move to Rome: In the early 160s AD, he moved to Rome, where he quickly became a prominent physician, serving high-ranking members of Roman society.

Imperial Physician: He eventually rose to the position of personal physician to several Roman emperors, including Marcus Aurelius, Commodus, and Septimius Severus.

Experimental Method: Galen was a proponent of the experimental method in medical investigation, conducting dissections and vivisections on animals (such as monkeys and pigs) to understand body functions.

Anatomical Discoveries:

He proved that arteries carry blood, not air, a belief that had persisted for 400 years. He demonstrated that urine is formed in the kidney (contrary to the common belief that it was formed in the bladder). He conducted pioneering studies of nerve, brain, and heart function, correctly identifying that the brain controls movements via the nervous system.

Legacy and Influence

Prolific Writer: Galen was a prolific writer, with around 300 known titles, about 150 of which survive in whole or in part. His surviving works compose nearly 10% of all ancient Greek literature before AD 350. Dominant Theories: His comprehensive works on anatomy, physiology, pathology, and pharmacology synthesized much of the ancient Greek medical tradition

(especially Hippocrates and Aristotle) and became the standard for medicine in Europe and the Islamic world for over a millennium.

Theory of Humors: Galen based his medicine on the theory of the four bodily humors (blood, phlegm, yellow bile, and black bile), recommending diets and treatments like bloodletting to redress imbalances. Challenged Later: His anatomical findings, based on animal dissections, contained inaccuracies regarding human anatomy that went largely unquestioned until Andreas Vesalius published his work De humani corporis fabrica in 1543. Galen's work had a profound influence, and medical students continued to study his writings well into the 19th century.

Galenic Preparations (Galenicals)

Galenic preparations are traditional medicinal products obtained from natural plant or animal raw materials using simple extraction methods. They are named after Galen, an ancient Greek physician who developed early pharmaceutical techniques.

These preparations contain a complex mixture of active and inactive substances from the original plant or animal material. They are not purified to isolate specific chemical compounds.

Main Characteristics

Made from natural raw materials (mostly plants).

Obtained by simple extraction: infusion, decoction, maceration, percolation, tincture preparation. Contain whole groups of substances: alkaloids, glycosides, tannins, essential oils, etc. Not standardized to a single active molecule. Have milder pharmacological effects compared to isolated active substances. Used mainly in traditional and herbal medicine.

Types of Galenic Preparations

1. Infusions – water extracts prepared with hot or cold water (e.g., chamomile infusion).
2. Decoctions – water extracts prepared by boiling tougher plant parts (roots, bark).
3. Tinctures – alcoholic extracts made by maceration or percolation.
4. Extracts – thick, dry, or liquid plant extracts containing complex active substances.
5. Syrups – sweetened aqueous extracts of medicinal plants.
6. Ointments and balms – semi-solid forms prepared from plant oils or resins.
7. Herbal powders – dried and ground plant materials.

Advantages

Natural origin.

Gentle, gradual therapeutic action.

Lower risk of severe side effects.

Suitable for long-term use in many cases.

Limitations

Lower concentration of active substances.

Variable composition depending on plant quality and extraction method.

Reduced precision in dosing.

Slower onset of action compared with purified drugs.

Examples of Galenic Preparations

Tincture of valerian (sedative).

Chamomile infusion (anti-inflammatory).

Peppermint oil balm (antispasmodic).

Aloe extract (immunomodulating effect).

Motherwort tincture (cardiotonic, sedative).

New-Galenic (Novogalenic) Preparations

New-galenic (novogalenic) preparations are modern pharmaceutical products obtained from medicinal plants, but unlike traditional galenicals, they contain purified, standardized, and concentrated active substances.

They are created using advanced extraction, purification, and isolation technologies, which remove ballast compounds while preserving or enhancing the therapeutic action.

Key Features

Made from plant raw materials, but highly purified. Contain specific active components (alkaloids, glycosides, flavonoids, polysaccharides). Use modern technologies: solvent extraction, chromatography, membrane filtration, supercritical CO_2 extraction.

Standardized composition with accurate doses. Higher pharmacological activity compared with traditional herbal extracts. Longer shelf life and better stability. Minimal unwanted plant substances (resins, tannins, cellulose, pigments).

Advantages of New-Galenic Preparations

1. High purity and elimination of ballast materials.
2. Precise dosing comparable to synthetic drugs.
3. Predictable and strong therapeutic effect.
4. Enhanced bioavailability of active substances.
5. Safety and reduced side effects due to removal of toxic impurities.
6. Suitable for tablet, capsule, injectable forms.

Examples of New-Galenic Preparations

Dry purified digitalis glycosides (e.g., digoxin derived from Digitalis).

1. Raw Material Processing

Galenic preparations: Made by simple extraction methods (infusions, decoctions, tinctures) without deep purification. New-galenic preparations: Produced using advanced purification techniques (chromatography, membrane filtration, CO_2 extraction).

2. Composition

Galenic: Contain complex mixtures of many substances, including ballast materials (tannins, resins, cellulose). New-galenic: Contain purified, isolated, and concentrated active compounds with minimal impurities.

3. Standardization

Galenic: Not precisely standardized; composition varies with raw material quality.

New-galenic: Highly standardized with accurate dosage of active ingredients.

4. Pharmacological Activity

Galenic: Weaker, milder, often slower therapeutic effect.

New-galenic: Stronger, more predictable, and faster pharmacological action.

5. Safety

Galenic: Higher risk of side effects due to ballast substances and variability.

New-galenic: Safer, because unwanted or toxic impurities are removed.

6. Dosage Forms

Galenic: Mostly liquid herbal forms (infusions, decoctions, tinctures, syrups).

New-galenic: Can be used in modern forms—tablets, capsules, injections.

7. Stability

Galenic: Lower stability and shorter shelf life.

New-galenic: Higher stability and longer shelf life due to purification and standardization.

8. Technology Level

Conclusion. Galenic and new-galenic preparations both play an important role in modern medicine. Galenic products, despite their natural origin, often contain ballast substances that may reduce effectiveness or cause mild side effects. However, they still provide gentle therapeutic action and remain valuable in traditional treatment.

New-galenic preparations offer the advantages of purity, precise dosing, and strong, reliable pharmacological effects. They allow us to use plant-based medicines with higher safety and efficiency.

Understanding both types helps us choose the most effective and safest treatment. These preparations are needed because they combine the wisdom of traditional herbal medicine with modern pharmaceutical technology, giving us broader, safer, and more effective therapeutic options.

REFERENCES:

1. Хусанов, А. (2025). PREVENTIVE AND CURRENT SANITARY CONTROL. Международный мультидисциплинарный журнал исследований и разработок, 1(4).
2. Турдиев, Ш. М., & Хусанов, А. Р. ВЛИЯНИЕ ЗАГРЯЗНЕНИЯ ОКРУЖАЮЩЕЙ СРЕДЫ НА ЗДОРОВЬЕ НАСЕЛЕНИЯ.
3. Бокижонов, Ф. А. (2025). ГИГИЕНИЧЕСКАЯ ОЦЕНКА ЗДОРОВЬЯ РАБОТНИКОВ ЖЕЛЕЗНОДОРОЖНОГО ТРАНСПОРТА ФЕРГАНСКОЙ ДОЛИНЫ. Журнал гуманитарных и естественных наук, (24), 31-34.
4. Mukhammadova, G. Q., Kodirova, M. M., & Boqijonov, F. A. (2024). The effect of industrial enterprises on atmospheric air. British Journal of Global Ecology and Sustainable Development, 28, 5-9.
5. Osbayov, M. I. (2024). ORGANIZING HEALTHY NUTRITION FOR CHILDREN. Ethiopian
International Journal of Multidisciplinary Research, 11(12), 336-338.
6. Osboyev, M. I. (2024). INTRODUCTION OF THE TERM ALLERGY INTO SCIENCE AND ALLERGIC CONDITIONS. Ethiopian International Journal of Multidisciplinary
Research, 11(12), 43-46.
7. Imaraliyevich, O. M. (2025). REPRODUCTIVE HEALTH PROMOTION ISSUES. Ethiopian
International Journal of Multidisciplinary Research, 12(01), 214-216.
8. Imaraliyevich, O. M. (2025). STUDYING THE IMPACT OF ECOLOGICAL FACTORS ON HUMAN HEALTH. Ethiopian International Journal of Multidisciplinary Research, 12(01), 252- 255.