

Pharmaceutical Terminology in Latin: Trivial Names of Medicinal Substances

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Abstract. *Pharmaceutical terminology plays a crucial role in ensuring the effective and safe use of medicinal substances by standardizing their nomenclature based on chemical structure, sources, and pharmacological effects. This study examines the classification of medicinal substances into natural and synthetic sources, highlights the significance of International Nonproprietary Names (INN), and compares trivial names with their official counterparts. The findings emphasize the necessity of precise naming in pharmaceutical practice to enhance drug safety and clinical applications.*

Keywords: *INN – International Nonproprietary Names, Acetylsalicylic acid, Paracetamol, Ibuprofen, Morphinum.*

Introduction

Pharmaceutical terminology is essential in the medical field as it helps to standardize the names of medicinal substances, ensuring consistency and clarity in clinical, research, and pharmacological applications [1]. Drug nomenclature follows specific rules, incorporating chemical structure, sources, or pharmacological effects. However, different naming conventions exist, including trivial names (widely used in daily practice) and International Nonproprietary Names (INN), which are globally standardized [2].

Understanding the classification of medicinal substances whether natural (derived from plants, animals, or minerals) or synthetic (produced through laboratory chemical reactions) is fundamental to pharmaceutical science [3]. The need for a globally recognized naming system is crucial for ensuring safe prescribing, reducing medical errors, and facilitating international pharmaceutical trade [4].

Methods

This study is based on a literature review of pharmaceutical terminology, drug classification, and naming conventions. Various scientific articles, pharmaceutical guidelines, and textbooks were analyzed to understand the differences between trivial names and INN, as well as their implications for clinical and pharmacological use. Data were collected from primary and secondary sources, including:

- Official pharmaceutical databases
- Pharmacopoeias and drug regulatory documents

- Scientific articles and studies on drug nomenclature

A comparative analysis was performed between trivial and official Latin names of medicinal substances, considering their historical background, chemical properties, and clinical applications.

Results

3.1. Classification of Medicinal Substances

Medicinal substances are classified into two major categories:

1. Natural sources:

- Plant-based: Opium poppy (source of Morphine)
- Animal-based: Insulin (extracted from the pancreas of animals)
- Mineral-based: Lithium compounds used in psychiatry

2. Synthetic sources:

- Laboratory-manufactured drugs: Ibuprofen, Paracetamol
- Chemical synthesis: Acetylsalicylic acid (Aspirin)

3.2. Trivial Names vs. International Nonproprietary Names (INN)

Trivial names are commonly used in daily medical practice due to their simplicity. However, they often lack precision in describing the chemical composition or pharmacological effect. In contrast, INN names are standardized to prevent confusion and ensure safety in pharmaceutical practice [5].

3.3. Examples of Medicinal Substances with Trivial and INN Names

Discussion

The results indicate that while trivial names are easier to remember and commonly used in non-specialist contexts, they can lead to misinterpretation and confusion, especially in international pharmaceutical trade and medical practice [6].

Advantages of INN usage:

- Standardization: Ensures uniformity across different countries.
- Accuracy: Reflects the chemical structure and pharmacological properties.
- Safety: Reduces prescription errors and drug interactions [7].

However, trivial names remain useful in non-specialist communication, making pharmaceuticals more accessible to the general public. For instance, "Aspirin" is more widely recognized than "Acidum acetylsalicylicum", yet the latter is scientifically precise [8].

A key challenge in pharmaceutical terminology is balancing accessibility and precision [9]. Regulatory authorities, including WHO and national pharmacopeias, continue to emphasize the adoption of INN in medical prescriptions and scientific literature [10].

Conclusion

Pharmaceutical terminology plays a vital role in ensuring effective and safe medication use. The adoption of International Nonproprietary Names (INN) enhances standardization, accuracy, and safety in drug prescription and administration. The classification of medicinal substances into natural and synthetic sources is crucial for understanding their pharmacological properties [11].

While trivial names remain widely used in everyday practice, they lack precision, making official Latin names essential for professional pharmaceutical and medical applications. The correct application of pharmaceutical terminology significantly contributes to the safe and standardized use of medicinal substances worldwide.

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