



## Learning to Write Prescriptions for Soft Drug Forms

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### ABSTRACT

In daily practice, patients are recommended to use ointments, liniments, creams, gels, pastes, suppositories prepared from many medicinal plants, animal products and chemical compounds for the treatment of various diseases. Ointments, liniments, creams for students studying medicine. In order to study gels, pastes, suppositories, taking into account the importance of the composition of the preparation of solid forms of medicine and the rules of writing a prescription for them, a summary of general understanding was created for the students of the medical school.

### Keywords:

Soft drug forms, ointment, gel, suppositories, constituents, lanolin, liniment

**Research materials and methods. Ointment - (UNGUENTUM)** demonstrative singular singular - unguenti, abbreviated - ung. It includes a soft non-dosed drug form, which is sticky and intended for external use. Ointments can be official and main. The ointment consists of the main active substance (basis) and forming substance (Constituens), which is called the ointment base. As an ointment base: 1. Vaseline (Vaselinum) - a product of oil processing. Vaseline is well stored, indifferent, not absorbed. Therefore, it is used in the preparation of topical ointments. 2. Lanolin (Lanolinum) is a purified fatty substance obtained from the wool of sheep. It is well absorbed and stored, completely indifferent. It is used in the preparation of ointments with a general effect. 3. Spermacetum is an oil obtained from cetaceans, similar to lanolin according to its properties. 4. Purified pig fat (Adeps suillus depuratus) is a very good ointment base, used in the preparation of ointments with a resorptive effect. does not change their properties under

the influence. In addition, other substances (silicone or polyethylene glycol polymers, phytosterol, etc.) are currently used as an ointment base. Ointment bases not only give the ointments a suitable consistency, but they can also have a local effect (anti-inflammatory, antipruritic, antiseptic, etc.). The total amount of ointments intended for eye application is 5- 15 grams and all other spreads range from 20 grams to 100 grams. The recipe for them is written in abbreviated and extended forms. When the ointment is written in the extended form in the recipe, the name and amount of all substances included in the ointment are written. Then they are instructed to mix them to form antimony, and then D.S. If the doctor does not specify the base of the ointment when writing a prescription for the main ointment, then such an ointment is made on the basis of vaseline. As a base for eye ointments, a mixture of 1 part of anhydrous lanolin and 9 parts of petroleum jelly is used (this base can also be omitted). Simple and complex ointments, which are prescribed in

abbreviated or extended form, are distinguished. Simple ointments consist of two components: one active substance and one constituent. In addition, other substances (silicone or polyethylene glycol polymers, phytosterol, etc.) are currently used as an ointment base. Ointment bases not only give the ointments a suitable consistency, but they can also have a local effect (anti-inflammatory, antipruritic, antiseptic, etc.). The total amount of ointments intended for eye application is 5- 15 grams and all other spreads range from 20 grams to 100 grams. The recipe for them is written in abbreviated and extended forms. When the ointment is written in the extended form in the recipe, the name and amount of all substances included in the ointment are written. Then they are instructed to mix them to form antimony, and then D.S. If the doctor does not specify the base of the ointment when writing a prescription for the main ointment, then such an ointment is made on the basis of vaseline. As a base for eye ointments, a mixture of 1 part of anhydrous lanolin and 9 parts of petroleum jelly is used (this base can also be omitted). Simple and complex ointments, which are prescribed in abbreviated or extended form, are distinguished. Simple ointments consist of two components: one active substance and one constituent.

Rp.: Unguenti Neomycini sulfatis 1% - 50,0

D. S. Apply to lubricate the affected skin.

Example: Write a prescription for 20 grams of Vaseline ointment containing 2.5% hydrocortisone. It is recommended to apply to the affected area of the skin.

Calculate:  $100 \text{ g} - 2,5 \text{ g}$   
 $20 \text{ g} - x$

$$x = \frac{20 \times 2,5}{100} = 0,5\%$$

Rp.: *Hydrocortisoni 0,5*

*Vaselini ad 20,0*

*M.f. unguentum*

*D.S. Apply to damaged skin*

A prescription is written for ointments with a special, commercial name, as well as official ointments. Example: write a prescription for 20

grams of "Efkamon" ointment. For application to the skin in myalgia.

Rp.: *Unguenti «Efkamonum» 20,0*

*D.S. To apply to the affected area of the skin*

Rp.: Unguenti Zinchi 20.0

D. S. To apply to the affected area of the skin  
Paste (infinitive singular - pastee, abbreviated - pas.) Paste is considered a thick paste, containing at least 25 percent (up to 60-65 percent) of hair-like substances (talc, starch, zinc oxide). Their consistency is close to dough (that's where the name comes from - paste means dough). Pastes soften quickly at body temperature. They have absorbent, drying and anti-inflammatory properties. The recipe for pastes is written only in extended form.- 90 -  
Example: Write a recipe for 50 grams of paste containing 5% anesthesin and 25% zinc oxide.

Rp.: *Anaesthesini 2,5*

*Zinci oxydi 12,5*

*Vaselini ad 50,0*

*M.f. pasta*

*D.S. To apply to the affected area of the skin*

**Liniment - Linimentum** (infinitive singular - linimenti, abbreviated - lin.) - liquid ointment. There are no special bases for liniments. Any liquid oils (Oleum Gossypii - cottonseed oil, Oleum Helianthi - sunflower oil, Oleum Hyoscyami - yarrow oil, etc.) are used for their preparation. Liniments are mainly written in the extended form in the recipe. Example: Write a recipe for 75 grams of liniment containing 5% purified turpentine oil and 15% methylsalicylate. Calculation: 1) turpentine oil  
2) methylsalicylate

$100 \text{ g} - 5 \text{ g}$

$75 \text{ g} - x$

$100 \text{ g} - 15 \text{ g}$

$75 \text{ g} - x$

$$x = \frac{75 \times 5}{100} = 3,75\%$$

$$x = \frac{75 \times 15}{100} = 11,25\%$$

Rp.: *Olei Terebinthinae rectificati 3,75*

*Methylsalicylatis 11,25*

*Olei Gossypii ad 75,0*

*M.f. linimentum*

***D.S. To apply to the affected area of the skin***

*Exception: If the composition of the liniment includes 1 active ingredient and cottonseed oil is used as a basis, then the recipe is also written in percentage form. Example: Write a prescription for Sintomycin 5% official liniment.*

***Rp.: Linimenti Synthomycini 5 % - 25,0***

***D.S. To apply to the affected area of the skin***

**Shamcha - Suppositorium** (indicative singular singular - suppositorii, abbreviated - supp.) is a drug form divided into doses, which is solid at home temperature and melts at body temperature. There are types of suppositories intended for rectal and vaginal use. Cocoa oil - Oleum Cacao is often used as the basis. In addition, gelatin-glycerin (a mixture of gelatin, glycerin and water) and soap-glycerin (a mixture of medical soap and glycerin) bases can be used as a basis for the production of suppositories. Medicinal substances are used in the form of suppositories for local and resorptive effect (in some cases, suppositories used in the rectum). When using poisonous and powerful medicinal substances in the form of suppositories, it is necessary to pay great attention to their therapeutic dose.

Main suppositories are written in an expanded view, indicating the base of the suppository and its type. Example: Write a prescription for 10 rectal suppositories of anesthesin with a therapeutic dose of 0.05 g. 1 suppository should be prescribed to be inserted into the rectum 2 times a day.

***Rp.: Anaesthesini 0,05***

***Olei Cacao 3,0***

***M.f. suppositorium rectale***

***D.t.d.N. 10 in charta cerata***

***S. 1 suppository 2 times a day to put in the rectum***

*II. Official suppositories are written in abbreviated form. Example: Write a prescription for 10 official rectal suppositories of ichthyol with a therapeutic dose of 0.2 grams. 1 strip should be prescribed to put in the rectum in the morning and in the evening.*

***Rp.: Suppositorium cum Ichthyolo 0,2***

***D.t.d.N. 10***

***S. 1 suppository in the morning and evening to put in the rectum***

*III. When writing suppositories with a special (commercial) name and a complex composition, the word "from suppositories - svech - Suppositoria" begins with the word "from suppositories - svech - Suppositoria" (infinitive plural - во множественном числе винительного падежа) and then the name of the drug (main in the singular number - в единственном числе именительного падежа) is written in quotation marks and then its number is indicated. Example: write a prescription for 10 suppositories of "Betiol" and order to put 1 suppository into the rectum 2 times a day.*

***Rp.: Suppositoria «Bethiolum» N.10***

***D.S. 1 suppository 2 times a day to put in the rectum***

*Paste (paste) is a soft, non-dosed medicinal substance, a paste-like ointment, containing 25% uncoated powder, intended for external use. Pastes can be official and basic. Like ointments, they consist of the main active substance (basis) and the forming inert substance (constituens), which is called the ointment base. As ointment bases, the same substances are used as for ointments. If the composition of the paste contains less than 25% powdery substances, then it is necessary to add an auxiliary inert substance ( Adjuvants). Pastes, unlike ointments, have a specific adsorption and drying effect.*

***Rp. : Pastae Aethacridini lactatis 25 % - 50,0***

***D . S . Lubricate the affected skin.***

The pharmaceutical industry produces official pastes, the concentration of which is indicated in the Pharmacopoeia (they are not available in other concentrations). In this case, the prescription indicates only the total amount of the paste. LINIMENT (liquid ointment) is a liquid ointment that is not dosed or melts at body temperature, a drug form used for external use. Liniment is official and magisterial. Liniment can be used for skin damage caused by burns or frostbite, cracks and for cosmetic purposes. The disadvantage of liniments is their low storage stability. Main liniments with normal composition are issued in the form of an analogue of official liniment

***Rp. : Linimenti Zinchi oxydi 10 % - 30 ml***

D . S . Apply to affected areas of the body.  
The main liniments in the compound are written in extended form.

Rp .: Chloroformii 20 ml  
Olei Hyoscyami 40 ml  
M . f . linimentum

D . S . Apply to the affected joint.

Results and comments: examples of how students learn the forms of soft medicine in accordance with the prescription rules were given in an understandable way. The forms of soft medicine include: ointments, pastes, gels, creams, suppositories. It is based on the fact that it is easy to apply (vaseline oil, vegetable and animal oils) and for better absorption (cocoa oil) and for long-term storage (lanolin) inserts are added. For better learning, the summary of general information was collected in a short form.

**Conclusion:** In this way, it is possible for medical school students to learn how to prepare soft medicine forms - ointments, pastes, gels, creams, suppositories - and write prescriptions for them based on the above information. students of the university learn as much as possible how to apply to pharmacies with main and official prescriptions. Taking into account the effectiveness and advantages of the study, it is possible to recommend it to the students' educational practice.

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