and self-medicate. A fissure in the rectum is another common proctological problem with similar symptoms: pain in the anus, burning, discomfort, and blood in the stool. Hemorrhoids are classified as internal and external. Approaches to treatment include the appointment of local agents (ointments, suppositories) with anti-inflammatory, decongestant, antipruritic and analgesic effects, the use of venotonics, patients may be recommended sclerotherapy, ligation of hemorrhoids, and even surgery.

Ointments are most effective for external hemorrhoids, when the hemorrhoids are located on the outside of the anus. For treatment of internal hemorrhoids, suppositories are more convenient.

In extemporal formulations of suppositories for the treatment of hemorrhoids, xeroforms are widely used as an active substance. Xeroform has an astringent, drying and antiseptic effect. It is low-toxic, does not have irritating properties when applied to wounds and mucous membranes. Albuminates formed upon contact of the xeroform with the wound surface form a protective layer that prevents the colonization of the wound by pathogenic organisms.

Tea tree oil is known to many and used in almost all spheres of human life. Tea tree oil for hemorrhoids has disinfecting, antibacterial, anti-inflammatory properties.

Suppositories are prepared by rolling and pouring methods. Depending on the suppository base, one or another method of preparing suppositories is chosen. It should be noted that the use of cocoa butter helps to restore damaged tissues, soothes, removes swelling, itching and burning.

The purpose of our study was to select a suppository base for preparing suppositories by pouring with xeroform and tea tree oil. For the suppository samples preparation a cocoa butter, solid fat and butyrol have been used. The pouring method was also used for cocoa butter suppositories.

The concentration of xeroform and tea tree oil was selected on the basis of literature data and analysis of extemporal suppository prescriptions.

Prospects for the creation of extemporaneous ointment with urea

Yuryeva G., Yarnykh T., Smolyaninova V.

Department of Drugs Technology

National University of Pharmacy, Kharkiv, Ukraine

tl@nuph.edu.ua

Urea-based medicines are used to moisturize and repair the skin of the face, body, hands and feet. The main indications for the use of the product for the heels are cracks caused by dry skin, dry calluses, corns.

The main task of the component is to maintain optimal moisture levels in the epidermis and body cells. The moisturizing and softening effect of urea is also used for certain skin diseases, such

as eczema, psoriasis, diabetic dry skin, various neurodermatosis. Urea is interesting in that it changes physiological properties depending on concentration. At the concentration of 3 to 10 % in medicine, urea will as an excellent natural moisturizer. Starting from a concentration of 10 %, a slight keratolytic effect can already be observed, which will increase with increasing the concentration. Medicines with a high concentration of urea of 15-20 % will be appropriate for the correction of severe keratoses of the feet. At a concentration of 20% to 35-40 % and higher, urea exhibits pronounced keratolytic properties.

Urea moisturizes the film on the skin, reduces water loss through the horny layer, softens the skin, accelerates the healing of minor skin lesions. It is known that the very small size of urea molecules easily penetrate into the deep layers of the skin along with water, nutrients and medicinal substances. Therefore, the use of vitamins and healing components in combination with urea is very promising in the development of extemporaneous dosage forms. It is well known that the most commonly used medicinal forms of preparations with keratolytic action for the treatment of corns are ointments, gels, creams, patches.

The purpose of our work was to develop an extemporal ointment with urea and vitamin A with keratolytic action for the treatment of corns.

Extemporal ointments are prepared according to general rules, depending on the physical and chemical properties of medicinal substances. The samples of ointment have been prepared on the different types of ointment bases. Urea was introduced into the hydrophobic ointment base as an emulsion type and as a solution into hydrophilic base.. Considering the peculiarities of the pharmacotherapy of corns, callosity and other skin coarseness, the use of a polyethylene oxide base was not considered due to the high osmotic activity. The obtained samples were examined for organoleptic and physical- chemical indicators.

Nasal ointments in the treatment of sinusitis

Yuryeva G., Yarnykh T., Tolkachova M.

Department of Drugs Technology

National University of Pharmacy, Kharkiv, Ukraine

tl@nuph.edu.ua

Sinusitis is a common condition defined as inflammation of the paranasal sinuses. Sinus cavities produce the mucus that nasal passages need to work effectively. Causes of sinus inflammation include viruses, bacteria, fungi, allergies, and an autoimmune reaction. The symptoms of sinusitis include nasal discharge, a postnasal drip, facial pain or pressure, blocked or runny nose, sore throat,