

# **TECHNOLOGICAL ASPECTS OF EXTEMPORAL TECHNOLOGY OF PREPARATION SUPPOSITORIES WITH SEA BUCKTHORN OIL FOR HAEMORRHOIDS TREATMENT**

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Haemorrhoids are a very common disease that affects 50 % of the human population throughout the world. This pathology is met in adults of all ages and in children from birth.

Medicines of herbal origin are better tolerated by patients, have significantly fewer side effects, high bioavailability and a wide range of therapeutic action.

Among the offered range of phytomedicines for haemorrhoids treatment suppositories with sea buckthorn oil by LLC “Fitolik” were chosen as an object of research, as they show a significant anti-inflammatory, reparative (healing) effect due to membrane and antioxidant effects of sea buckthorn oil. Also, this medicine is suitable for treatment both adults and children above 6 years. But it contains hard fat as a suppository base, while usage of suppositories in children requires natural components. Pharmaceutical compounding gives an opportunity to develop extemporal technology of preparation suppositories with sea buckthorn oil with the use of natural suppository base – cocoa butter.

As cocoa butter has a low melting temperature and the chosen active ingredient is in the form of the fat oil in quantity of 33.33 %, the sealant is required. For a number of reasons, the most suitable sealant is set as beeswax.

To determine the suitable percentage of beeswax in suppositories, the relevant investigation was conducted. Suppositories with 3, 4, 5 % (samples 1, 2 and 3, respectively) of beeswax were prepared and studied by such physical and chemical property as melting temperature (by the by the method of State Pharmacopoeia of Ukraine, 1 ed., section 2.2.15.). Research was conducted for 3 series, for each sample, of 10 suppositories with sea buckthorn.

The obtained results showed that samples 1 and 2 have melting temperature lower than 34 °C, which means that they will melt at the hand of the patient at once. Such circumstance attests to the impossibility of their successful administration. Melting temperature of sample 3 provides good consumer quality of the medicine and meets the requirements of State Pharmacopoeia of Ukraine.

Therefore, the most rational quantity of sealant beeswax was set as 5 %. The obtained results were used in development of extemporal technology of preparation suppositories with sea buckthorn oil.