

DEVELOPMENT OF EXTEMPORANEOUS MEDICINE FOR INFLUENZA PREVENTION

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Introduction. By frequency and number of cases in the world among all infectious diseases influenza and SARS occupy the first place. According to WHO, influenza and influenza-like illness in the world cause the disease in 5 to 30 % of the population. Respiratory diseases are common pathology in the structure of Ukrainian population morbidity. For the treatment of many diseases the practical medicine widely uses medicines with medicinal plants. For symptomatic treatment and prevention of influenza it is optimal to use medicines that have a wide range of actions, primarily: anti-inflammatory, antibacterial and so on. Such properties are typical for eucalyptus leaves and marigold flowers.

Aim. The aim is to investigate conditions of release of chlorophyll and carotenoids sum from eucalyptus leaves and marigold flowers into non-aqueous solvents for the production of extemporaneous medicine for the prevention of acute respiratory diseases and influenza.

Materials and methods. The objects of research were extracts of lipophilic substances of eucalyptus leaves and marigold flowers composition obtained in different solvents. Study was carried out by the spectrophotometric method of the State Pharmacopoeia of Ukraine.

Results and discussion. In the experiment, the chopped raw of eucalyptus leaves and marigold flowers was extracted with non-aqueous solvent in the infuser on a water bath at 50 ± 5 °C. There were prepared samples of eucalyptus leaves and marigold flowers raw material in the ratio (2: 1) (1: 1) (1: 2) for study. As extractants there were used peach oil, sunflower oil and propylene glycol. The resulting extracts were separated by filtration of plant material in 2 layers of cheesecloth through the press. Plant material was returned to the extraction device, filled with solvent in the ratio (1: 3) and then another extraction under similar conditions was carried out. After a further assertion of solids of the plant material for 2-3 days, extracts were filtered through a layer of filter paper and passed on spectrophotometric determination of active compounds. Research on the development of the extemporal dosage form for the prevention of influenza continues.

Conclusions. Conditions of release of lipophilic substances (carotenoids and chlorophylls) of eucalyptus leaves and marigold flowers composition into non-aqueous solvents were studied. It was established that the selected temperature, the ratio of raw material to solvent, infusion time is optimal.