to lose attention, thus increasing the risk of harmful events (flammable substance ignition, fire hazard, etc.).

Conclusions. Based on the study of the problems of this issue and the results of the research, we can draw the following conclusions:

- Evaluation and analysis of the data obtained from our research suggest that there is a need to tighten and control safety regulations in the pharmaceutical facility;
- 44.3% of respondents are not informed about labor safety regulations in Georgia;
- More than 33% of respondents are unaware of the regulation of occupational safety in a pharmaceutical facility;
- Low legal-normative base and level of awareness on sanitary requirements in pharmaceutical institutions;
- 50% of respondents were unaware of the presence of potential or existing health hazards in the workplace.
- Pharmaceutical establishments do not comply with the hygienic norms of the internal and external environment, physical, chemical and biological factors of the labor process. The facility also does not take into account psychosocial factors related to safety (stress, communication, post-traumatic stress, etc.);
- Most pharmaceutical establishments (50-60%) do not have a fire board with appropriate equipment, evacuation exit and scheme. Also has no person responsible for the matter.

INVESTIGATION OF MEMBRANO STABILIZING EFFECT OF *PRUNUS DOMESTICA* FRUIT EXTRACTS

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Introduction. *Prunus domestica*, the family *Rosaceae*, widespread horticultural crops in Ukraine have a lot zoned and local varieties and quantity stands second only to apples, pears and cherries. According to the research, the presence of organic acids in the raw material (apple, citrate, chlorogenic, neoclonogenic, coffee), anthocyanins, routine, gallic acid, neutral sugars was determined on the qualitative and quantitative composition of the Plums'.

The analysis of literary data showed that fruit of the plum contains 6-17% of sugars, up to 8% of pectin substances, organic acids (apple, lemon, oxalic acid, amber, china) to 1.6%, flavonoids, tannins, vitamins. According to the literary data, the fruits of domestic plum are widely used in the treatment of diseases of the gastrointestinal tract (constipation and intestinal atony, bile stains, liver disease). Therefore, preliminary experimental studies were aimed at identifying and confirming the weakening and hepatoprotective properties of extracts isolated from *Prunus domestica.*

Purpose of the research - hepatoprotective activity of four domestic plum fruits extracts were analized and two of them had a high hepatoprotective effect. Therefore, the aim of this study was to investigate membrane stabilizing activity of these two plum fruit extracts.

Materials and methods. The membrane-stabilizing activity of the extract from plain fruit was studied using the *F.C. Jager* method, which is based on the determination of the extinction-

free exocutaneous hemoglobin excretion at 540nm that enters the blood due to spontaneous mucous membrane lysis of erythrocytes caused by peroxidation of lipids with oxygen.

Experimental animals were divided into three groups. Animals of the first group were administered the test extract in a dose of 200 mg/kg, animals of the second group were administered Silibor at a dose of 25 mg/kg, animals of the control group were given an equivalent amount of solvent.

Within 3 days, the animals were administered intramuscularly with test extract at a dose of 200 mg/kg, as the most effective for hepatoprotective action, and the reference drug Silibor at a dose of 25 mg/kg. On the fourth day of the experiment animal's blood was received from the tail vein and determined the degree of hemolysis of red blood cells blood). The blood was centrifuged to collect blood cells and then washed three times with isotonic solution (15 mM NaCl) in 10mM sodium phosphate buffer (pH 7.4) through centrifugation (10 min at 3000 g) using t he same volume as supernatant. Finally, it was resuspended in the equal volume of this isotonic buffer solution. Samples had 0.5 ml of erythrocytes mixed with hypotonic-buffered saline alone. The mixture was incubated for 10 min at room temperature, centrifuged for 10 min at 3000 g and the optical density (OD) of the supernatant was measured (*LabAnalyt SP-V1000*, China).

Obtained results. According to the analysis of experimental data, it was found that extracts from plum fruits commonly reduced the degree of spontaneous hemolysis of red blood cells. Test substances administration to animals decreased of this indicator, compared with the control group by 56.1% and 26.8% respectively. The extract with fibers was most active in stabilizing erythrocyte membranes, which exceeded the activity of the extract with polysaccharides, and somewhat inferior to the activity of the comparator (Silibor). The membrane stabilizing effect of plum fruit extracts was expressively comparable to the activity of the comparator preparation, for which the degree of hemolysis of erythrocytes decreased by 61.3%. In the case of the use of a plum extract containing mainly a polysaccharide complex, the degree of spontaneous hemolysis decreased compared to control, and significantly increased by an appropriate indicator compared to the reference Silibor, the membrane-stabilizing activity of the extract was 26.8% (Table 1).

Table 1.

Membrane stabilizing effect of the Plum fruit extract in the model of spontaneous hemolysis of erythrocytes (n = 5)

Groups of animals	Inhibition of hemolysis, %	Membrane stabilizing activity, %
Intact	10.59±1.5	-
Silibor, 25 mg/kg	4.10±0.75*	61.3
Extract with fibers, 200 mg/kg	4.65±0.64*	56.1
Extract with polysaccharides, 200 mg/kg	7.75±0.95*	26.8

* - $p \leq 0,05$ compared to intact group;

n – number of animals in the group.

Conclusions. Among the two presented plum fruit extracts, the most active extract contains fibers. In the dose 200 mg/kg this extract significantly reduced the degree of spontaneous hemolysis as a result of inhibition of erythrocyte cell membranes degradation induced by lipid peroxidation and slightly inferior to the f the membrane-stabilizing effect of the comparison drug Silybor. The results obtained can be related to the presence in the chemical composition of the extract of bioflavonoids (anthocyanins).