update of the 2015 BASHH National Guidelines for the Management of the Viral Hepatitides» (UK, 2017), «The U.S. National Viral Hepatitis Action Plan for 2017-2020» (USA, 2017). Also, comparative tables of major coincidences or differences were made and the congruence of UCPC to international health care norms was studied.

Results and discussion. The results of the study found that, almost, all of the statements for primary and secondary prevention of HBV, which are represented in UCPC «Viral hepatitis B in adults» comply with international guidelines. According to the domestic UCPC, the nucleos(t)ide analogues (NAs) (inhibitors of HBV DNA replication) are first line therapy of chronic HBV; treatment with these drugs is long-lasting and use for a lifetime. In all adults, as the first-line drugs NAs with high resistance barrier (tenofovir disoproxil) are highly recommended. But NAs with low resistance barrier (lamivudine, telivudine) can lead to drug resistance and are not recommended for use. For patients with confirmed or suspected antiviral resistance to lamivudine or telbivudine, tenofovir disoproxil is obviously prescribed. The second direction of therapy is recommended to use pegylated interferons alfa-2a (Peg-IFN-2a).

Most international guidelines for all adults, adolescents and children aged 12 years or older in whom antiviral therapy is indicated, the nucleos(t)ide analogues (NAs) which have a high barrier to drug resistance (tenofovir or entecavir) are recommended. Entecavir is recommended in children aged 2–11 years. NAs with a low barrier to resistance (lamivudine, adefovir or telbivudine) can lead to drug resistance and are not recommended.

The second line of recommendation for resistance to lamivudine, entecavir, adefovirda or telbivudine is the application of tenofovir and only in rare cases the application of Peg-IFN-2a.

Conclusions. Thus, it can be noted that the national Unified clinical protocols of primary, secondary (specialized), tertiary (highly specialized) care (UCPC) «Viral hepatitis B in adults» under the recommendations for prevention and treatment of HBV in most of the basic statements comply with international guidelines and sufficiently it will allow to provide effective preventive and therapeutic measures to struggle with this dangerous infection in the country.

MEDICINES AND RESULTS OF LABORATORY MEASUREMENTS: PROBLEMS OF INTERPRETATION

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Introduction. The main strategic direction of development of modern laboratory diagnostics is the implementation of the transition from the concept of quality assurance to the concept of continuous improvement.

The cycle of producing a qualitative laboratory «product» – the results of medical-laboratory studies – is decided to be divided into three main stages: preanalytical (from the moment of appointment of the laboratory test to the beginning of the measurement of the relevant analysis), analytical (the process of measurement or determination of analysis) and post-analytical (from the recording of measurement results to their medical interpretation). Only if the quality of the performance of all three stages is ensured we can expect to receive an excellent final product.

In the non-laboratory part of the post-analytical phase, the interpretation of the results of laboratory tests and the assessment by the physician of the clinical significance of the information received. First of all, you need to be sure of the analytical reliability of results, in the correct choice of reference intervals (normal values). The result obtained should be compared with the selected reference intervals, the corresponding data from other laboratory and instrumental studies. Medicines can be one of the essential factors that can change the reliability of the results of laboratory tests.

As a number of diseases found only or primarily through laboratory tests, the problem of influence on the results of these tests drugs as a manifestation of side effects, becomes of paramount importance. According to the State Expert Center of the Ministry of Health of Ukraine, 25-30% of cases of drug intake

are accompanied by certain adverse reactions. In 65% of cases, they are manifested in the form of various kinds of violations of the results of laboratory analyzes.

The ability of drugs to influence the different sides of metabolism, metabolic processes, to suppress endogenous and exogenous substances from communication with proteins is one of the most common causes of unexpected deviations of certain laboratory parameters, false positive or false negative results. The change in laboratory performance is all the more significant, the higher the concentration and duration of circulation of drugs and their active metabolites in the blood and tissues of the body. The nature and intensity of interference depend primarily on the dose, scheme and duration of administration of drugs to patients, genetic, phenotypic, and pharmacokinetic factors.

Aim. The aim of the work was to study the effects of various groups of drugs on the indicators of laboratory tests: general urine analysis and biochemical blood analysis.

Materials and methods. To achieve the goal, a clinical and pharmaceutical analysis of drugs registered and presented on the Ukrainian pharmaceutical market as of 01.01.2018 was carried out. The electronic resources of the Internet network were used as an information source, in particular, they were posted on the website of the SE «State Expert Center of the Ministry of Health of Ukraine» – the State Register of Medicines Products.

Results and discussion. According to the results of information retrieval wich were carried out in the environment of the State Register of Medicinal Products, 239 medicinal substances have been identified, the administration of which may lead to significant deviations in the laboratory parameters of the biochemical analysis of blood. Thus, the use of relatively high doses of salicylates, cephalosporins can increase the level of blood sugar and give a false positive reaction to sugar in urine. Caffeine, by virtue of its mechanism of action, suppresses the enzyme phosphodiesterase, contributing to the increase in the content of cyclic AMP, which in turn leads to an intensification of biochemical reactions, in particular glycogenolysis, and an increase in the level of glucose concentration in the blood. Adrenaline also contributes to increasing the level of glucose concentration, as it stimulates gluconeogenesis. Patients, with diabetes mellitus and concomitant cardiovascular disease (hypertension, ischemic heart disease) who take beta-blockers, diuretics (especially thiazide) for a long time, short-acting calcium channel blockers may experience an increase in blood glucose or an increase in insulin resistance, which needs to be corrected for a dose of anti-depressant drugs.

Particular attention should be given to those drugs that not only can have a negative effect on carbohydrate metabolism, and sometimes even cause diabetes. These are combined oral contraceptives, glucocorticosteroids, tricyclic antidepressants, isoniazid, barbiturates, sympathomimetics (adrenaline, norepinephrine, ephedrine), thyroid hormones (thyroxine, triiodothyronine), and other drugs.

Also of high attention are medicinal products that can cause medical hepatitis, hepatoses (fatty, cholestatic), chemically induced hyperplasia of the liver tissue. Mechanisms for the implementation of their hepatotoxicity may be different: immune, enzymopathic, toxic-allergic. Often, clinically toxic-allergic hepatitis proceeds as cholestatic. The time of toxic hepatitis does not depend on the duration of treatment. It can develop after the first drug intake or 6-12 months from the start of treatment. Cancellation of the drug leads to recovery, less manifestations of toxic hepatitis are progressing. For example, amlodipine is capable of causing hepatitis, jaundice, elevation of liver enzymes; Azithromycin - occurrence of hepatic insufficiency, fulminant and necrotic hepatitis; Warfarin - cholestatic hepatitis, jaundice; Levofloxacin - increased activity of the liver enzymes and alkaline phosphatase; Okreotid - hyperbilirubinemia, acute pancreatitis, acute hepatitis without cholestasis, cholestatic hepatitis; Paklitaxel - liver necrosis, hepatic encephalopathy; Pyrazinamide - hepatomegaly; Roxithromycin - elevated levels of liver transaminases and alkaline phosphatase, areoglobin insufficiency of the liver; Sorafenib - elevation of liver enzymes, transient elevation of alkaline phosphatase levels; Tamoksifen - a change in the level of liver enzymes, cirrhosis, necrotic hepatitis.

A large number of drugs can cause more or less severe kidney damage, both in children and in adults. Clinical signs of drug nephrotoxicity are often concealed, nonspecific and variable, depending on the drug taken. According to our results, we identified 116 medicinal substances, the administration of which may lead to significant deviations in the laboratory parameters of the general urinalysis. For example, Nabumeton is capable of causing albuminuria, hyperuricemia, hematuria; Nimesulide - dysuria, hematuria; Norfloxacin - development of glomerulonephritis (dysuria, polyuria, albuminuria,

hematuria); Nifedipine is able to cause polyuria, nicturias, hematuria, dysuria; Streptomycin - proteinuria, hematuria; Sevoflurane - glucosuria; Sulfasalazine - proteinuria, hematuria; Thadalafil can cause hematuria; Varenicline causes polakyuria, nectra, glucosuria, polyuria; Olanzapine - glucosuria; Ornidazole - darkening of the color of urine.

Conclusions. Thus, it should be remembered that laboratory indicators are not strictly specific and give a certain percentage of false positive and false negative results. That is why knowledge about the basics of internal diseases and laboratory diagnostics, changes in laboratory parameters in the conditions of the most common diseases and under the influence of medicines are necessary for pharmacies for a qualified consultation of a doctor and a patient on the issues of rational choice of medical therapy. This will significantly improve the quality of treatment and reduce the number of unwanted side effects.

FRIGOPROTECTIVE PROPERTIES OF OLIGOPEPTIDES - HOMOLOGUES OF THE FRAGMENT OF ACTH$_{15-18}$

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Introduction. A significant place among the problems of modern medicine and pharmacology is the damage to the body at low temperatures, as residents of most countries and climatic zones experience hypothermia. Particular importance is acquired in the context of military and political conflicts, industrial disasters and environmental incidents. Recently, the number of cases of negative influence of hypothermia is increasing, which leads to the death or disability of the victims. The pathogenic mechanism of low temperature affect on the body includes cardiovascular, endocrine, central nervous, immune, respiratory and other systems. Such multisystemic pathogenic mechanism causes the baffling complexity of treatment. The range of drugs that can increase the body's resistance to hypothermia (frigoprotectors) is rather narrow. In addition, most of them affect only one of the components of the pathogenic mechanism of cold trauma. Therefore, the search for new safe and effective frigoprotectors is relevant. Neuropeptide drugs which are characterized by multi-functionality and the ability to eliminate the disintegration of molecular-biochemical mechanisms, assume importance. Peptide homologous of adrenocorticotropic (ACTH) hormone fragment $_{15-18}$ take particular attention as potential frigoprotectors.

Objective: to conduct an experimental study of frigoprotective properties of oligopeptides - homologues of ACTH fragment $_{15-18}$ on the model of acute total cooling of mice and cold trauma in rats.

Materials and methods. The peptide homologues of the fragment of ACTH$_{15-18}$ (Lys-Lys-Arg-Arg) under the code KK-1 and KK-5 were synthesized at the Federal State Unitary Enterprise "State Research Institute of High Pure Biopreparations" of the Federal Medical and Biological Agency of Russia (St. Petersburg, the Russian Federation) supervised by Doctor of Biological Sciences O.O. Kolobova. Peptides were obtained by solid phase synthesis using OSI technology and purified by preparative reversed phase chromatography, with a frequency of at least 98%. In these compounds, one Acetyl-(D-Lys)-Lys-Arg-Arg-amide (KK-1) or two Acetyl-(D-Lys)-Lys-(D-Arg)-Arg-amide (KK-5) natural amino acids is converted to the corresponding D-stereomer. These compounds have increased resistance to human blood serum proteases, and belong to practically non-toxic substances.

The study of frigoprotective effect of peptides was performed on 36 white male mice weighing 17-20 g and 36 white male rats, grown in vivarium of the National University of Pharmacy. The animals were kept in a standard diet without limiting access to water. The study of frigoprotective activity carried out on the models of acute total cooling of mice and cold trauma in rats. The animals were placed in a freezing chamber with a constant temperature of -18°C for the reproduction of acute total cooling of mice. Frigoprotective effect was evaluated for the duration of life of animals in cold conditions. Frigoprotective activity of drugs was calculated as a percentage of increase in life in a freezing chamber compared to control. Oligopeptides were administered by intranasal introduction at a dose of 20 μg/kg for 30 minutes prior to cold exposure. The reference drug "Semax" (CJSC "Innovative Scientific and Production Centre "Peptogen", the Russian Federation) was administered at a dose of 20 μg/kg in the same terms.