Author: **Ana Bondarciuc**
Scientific adviser: Coretchi Ianos, MD, PhD, Associate professor, Departament of Pharmacology and Clinical Pharmacology
*Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction.** ACE inhibitors are well known to improve outcomes in the prevention of acute myocardial infarction, lowering the morbidity and mortality in congestive heart failure, and to attenuate renal dysfunction. On the other hand they can induce severe refractory hypotension during general anesthesia or in case of overdose. Profetur is a new alkylisothiourea derivative with potent antihypotensive vasoconstrictive action. The substance has a long lasting action after single dose administration, both in normal conditions and on the background of blockade action of different antihypertensive drugs. This characterizes profetur as a promising drug for the use in the treatment of acute arterial hypotension caused by ACE inhibitors.
**Aim of the study.** Evaluation of the possibility of using of the new antihypotensive vasoconstrictive isothiourea derivative profetur for the correction of hemodynamic disorders observed in acute arterial hypotension caused by ACE inhibitors.
**Material and methods.** Experiments were performed on rats anaesthetized by sodium thiopental (30-50 mg/kg, i/p). Acute arterial hypotension was modeled by intravenous administration of the ACE inhibitor enalapril (2 mg/kg). In order to correct hemodynamic disorders, profetur was administered intravenously in the dose of 20 mg/kg. Antihypotensive action was assessed by determining changes in blood pressure, heart rate and respiration in the initial state, after 2 and 15 minutes on the background of enalapril, and within 60 minutes after the administration of profetur.
**Results.** Enalapril administration was accompanied by a decrease in blood pressure by 32.5%, an increase in heart rate by 4.6% and respiratory rate by 33.5%. With a single intravenous administration of profetur, blood pressure was significantly increased and stabilized (106±21,1-114,7±20,6 mmHg) during the whole duration of the experiments. Recovery of blood pressure was accompanied by a decrease in heart rate and respiration. Changes of these parameters indicate that the profetur, normalizing blood pressure, eliminated hemodynamic disorders caused by enalapril.
**Conclusions.** In acute arterial hypotension caused by enalapril, profetur preserves its vasoconstrictive action and contributes to abolishment of the disturbances of the systemic hemodynamics and hypoxia seen with the use of the ACE inhibitor.
**Key words:** profetur, enalapril, hypotension, antihypotensive drugs

## 237. HEPATOPROTECTIVE PRODUCTS ACCORDING TO STATE MEDICINE NOMENCLATURE FROM REPUBLIC OF MOLDOVA

Author: **Maria-Mirabela Toma, Carolina Bors.**
Scientific adviser: Nicolae Bacinschi, MD, PhD, Professor, Department of Pharmacology and Clinical Pharmacology
*Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction**. The acute and chronic hepatites remains to be the main problem for the humanity and also for R. Moldova, that´s why the evaluation of drugs with hepatoprotective action is esential, both from a medical and social point of view and also from an economic point of view. Hepatoprotective products are constituents capable of protecting the liver from the destructiv action of endogenous and exogenous factors.
**Aim of the study.** Our main goal is to select all the hepatoprotective products that were recorded in R. Moldova, analyzing them according to the State Medicine Nomenclature(SMN).

**Materials and methods.** For our research, as materials, were used: the SMN that contains 5137 drugs, available on Medicines and Medical Devices Agency (amed.md) and also the scientific literature and guides on the classification of hepatoprotective products.
**Results.** Hepatoprotective products have a lot of 2.1% of the total number of medicine from the nomenclature (5137), the first in the list are the drugs with vegetal origins: Silymarin products - 31, followed by ursodeoxycholic acid products -18, amino acid products -17, phospholipids products -9, and other different groups own an amount of 32 products. At the moment, the following products are absent from the pharmaceutical market: amino acid derivatives: Betaina citrat, Ornitin aspartat; drugs which contain phospholipids: Fosfolip, Lipin, Eplir; drugs with a animal origins: Sirepar, Vitogepat; and also synthetic drugs. According to the pharmaceutical forms, the hepatoprotective can be presented in capsules-55%, followed by tablets-26%, injectable solution-11%, oral solutions-7% and just 1% for vegetal products. We mention that reported to the manufacturing, 43% of hepatoprotective products are produced by EU, and 16% are produced in R. Moldova, etc.
**Conclusion.** The National Program to combat the viral hepatitis for the years 2017-2021 provides a reduction of 50% till 2021 of the incindence and prevalence for the acute and chronic hepatitis, including through the access of pacients with hepatitis to medical products and to quality treatment services.
**Key-words:** hepatoprotective, products, hepatitis

## 238. APPROACHES IN THE DRUG-INDUCED LUPUS ERYTHEMATOSUS

Author: **Nicolae Demenciuc**
Scientific adviser: Tatiana Rakovskaia, MD, PhD, Associate professor, Department of pharmacology and clinical pharmacology
*Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction**. Drug-induced lupus erythematosus (DILE) is an autoimmune syndrome similar to systemic lupus erythematosus (SLE), caused by the long-term administration of certain drugs. The management of the disease is an important issue, because the pathogenesis and clinic manifestations of the disease have remained unclear.
**Aim of the study.** Analysis of literature and new results regarding disease pathogenesis, clinical and laboratory manifestations, treatment and comorbidities in drug-induced lupus erythematosus. Material and methods. Selection and analysis of new literature in clinical practice, diagnostic and therapeutic approaches of drug-induced lupus erythematosus.
**Results.** Over 80 drugs have high potential to induce DILE. The most common are; procainamide, hydralazine and quinidine. Drugs' metabolism by the means of myeloperoxidase, their deacetylation of acetyl groups and the apoptosis with antinucleosomal antigen release are the basic links in the DILE pathogenesis. Diagnosis is made by determination of antinuclear and/or antihistronic antibodies. Most commonly used drugs for DILE control are: mycophenolate mofetil, cyclophosphamide, methylprednisolone, rituximab, belimumab, and blisibimod, indicated according to treatment schemes.
**Conclusions.** The use of drugs must be individualized on the base of their efficacy and harmlessness. Recommended drugs in DILE treatment are prescribed according to their efficacy, accessibility, and evidence-based medicine and represent: glucocorticoids, immunosuppressants and B-cell blockade.
**Key words:** drug-induced lupus erythematosus, systemic lupus erythematosus

## DEPARTMENT OF PATHOPHYSIOLOGY AND CLINICAL PATHOPHYSIOLOGY

## 239. BIOIMPEDANCE ANALYSIS IN MEDICINE