

with not high BP and low risk, as well as the very elderly and attenuated patients. Secondly, it is worth noting that beta-blockers have been eliminated from first-line drugs in patients with uncomplicated hypertension. Meta-analysis showed that beta-blockers do not reduce overall mortality or risk of myocardial ischemia. Moreover, it has been reported that beta-blockers are inferior to other antihypertensive drugs in reducing the risk of strokes. Other evidences supporting this argument are as follows: meta-analyzes showing lower efficacy of beta-blockers in the prevention of cardiovascular complications in patients with hypertension; REACH observational study did not confirm the ability of beta-blockers to reduce the risk of death and cardiovascular complications in a large number of patients with CHD and CHD risk factors; meta-analysis by S. Bouri et al., which showed that beta-blockers do not reduce, but, on the contrary, increase perioperative mortality in non-cardiac operations; meta-analysis showing that efficacy of beta-blockers in patients with HF and atrial fibrillation is less pronounced, than in patients with sinus rhythm. For most patients, treatment should start with a combination of a reninangiotensin system inhibitor (angiotensin converting enzyme inhibitor or angiotensin receptor blockers) with a calcium antagonist and/or a diuretic. The prescription of beta-blockers can only be considered in the presence of special indications (HF, angina pectoris, MI, atrial fibrillation, pregnancy), as well as in resistant hypertension.

Also noteworthy is the better position of spironolactone, as a fourth-line drug in resistant hypertension, related to the results of the PATHWAY-2 study.

**Conclusions.** The analytical overview of the updated ESH/ESC Practice guidelines for the management of AH showed the increase of requirements towards the target blood levels and the priority of the combination therapy as a first-line antihypertensive treatment that include reninangiotensin system inhibitor (angiotensin converting enzyme inhibitor or angiotensin receptor blockers) with a calcium antagonist and / or a diuretic. Beta-blockers were shifted to the second-line antihypertensive therapy because of the range of long-term negative impact on mortality and overall cardio-vascular risk.

## **FEATURES OF THE MEDICINAL TREATMENT OF ARTERIAL HYPERTENSION IN PATIENTS WITH TYPE 2 DIABETES MELLITUS**

Heidi A. Abouzeid

Scientific supervisor: prof. Moroz V. A.

National University of Pharmacy, Kharkiv, Ukraine

vl\_moroz@yahoo.com

**Introduction.** Type 2 diabetes mellitus (DM II) and arterial hypertension (AH) are currently competing for primacy among the causes of the earliest of all common diseases of mortality and disability. And the combination of these pathologies presents special problems about prevention and adequate treatment. The presence of diabetes affects a person in almost all organs and systems, determining the high number and various types of complications. It should be understood that the disease is only compensated, but not eliminated. And it is precisely the optimal compensation of metabolic disorders in this disease that is a key factor in the prevention of such complications. The number of patients with diabetes currently in the world has significantly exceeded 422 million people. And according to the results of many epidemiological studies, we can assume that this figure is significantly lower than the true one. Perhaps, as some researchers admit, at half. Moreover, in 2008 the number of such patients was 108 million. In Ukraine, the incidence of DM II for women 60–70 years old is 10–20%. And for the age category of 40-50 years - 3-5%.

It is widely known that AH occurs in patients with DM II about 2 times more often than in the general population. And hypertension has a significant impact on the fate of patients with DM II, increasing the risk of developing cardiovascular and renal complications, which are mentioned among the main causes of mortality. At the same time, its effective medicinal therapy for diabetes significantly reduces the development of all types of complications of this disease. But the practical use of antihypertensive

medicines of various groups in the treatment of DM II is replete with several features and involves the possession of a certain amount of information by the appropriate specialist and the patient himself. In this sense, this requires a qualitatively new approach to the pharmaceutical care of these medicines, adequate coordination of the order of their administration with well-known recommendations for nutrition, physical activity, etc. important events, which not only have not lost their significance in the treatment of diabetes (in particular, DM II), but have acquired special significance against the background of clarified facts, significantly increasing the survival of such patients and improving their quality of life

**Aim.** The present work aimed to study the spectrum of used antihypertensive medicines in patients with DM II in a hospital clinical base of the university and to develop recommendations for the rational use of antihypertensive therapy in this group of patients.

**Materials and methods.** 38 patients with AH and DM II were examined by questionnaire survey and analysis of case histories in a hospital clinical base of the university. These were patients aged 46 to 70 years (mean age  $59 \pm 0.43$  years). Among them were 22 women and 16 men. The diagnosis of DM II of varying severity was available for at least 3 years. The effectiveness and tolerability of the treatment was taken into account according to the dynamics of patient complaints and the need to change the treatment regimen, as well as the long-term results of treatment, evaluated according to control examinations

**Results and discussion.** Three groups were used as antihypertensive medicines: ACE inhibitors, calcium channel blockers and diuretics. In some cases, they were used in combination. In 23 patients (60.5% of all patients), an ACE inhibitor was used as the main antihypertensive medicine, in 28.9% – a calcium channel blocker, and another 10.6% used a diuretic (mainly a thiazide group). One antihypertensive preparation was used in 52.6% of the examined population, and the remaining 18 (47.4%) took 2 antihypertensive medicines. The most common combination is an ACE inhibitor or calcium channel blocker with a diuretic. The ACE inhibitor (for example, lisinopril) turned out to be the most acceptable at the first stage of the selection of therapy in most clinical cases. With tolerance or intolerance to ACE inhibitors, the use of a calcium channel blocker is indicated. At the second stage, taking into account the presence of organ dysfunctions and pathology of target targets, international recommendations are taken as the basis and additionally prescribed preparations with dose adjustment of already taken.

**Conclusions.** In the treatment of AH and concomitant DM II, the predominant use of ACE inhibitors was revealed, which were used in 60.5% of patients. To achieve the target blood pressure in patients, monotherapy was used in 52.6% of patients and a combination of two or three medicines in 47.4%. An unreasonable prescription of several preparations and their dosages was observed in about a third of the examined patients. Based on the results of the work, practical recommendations were developed on the rational selection of antihypertensive therapy in the studied patient population.

## **EVALUATION OF THE STATE OF RISK-BASED QUALITY MANAGEMENT TOOLS IMPLEMENTATION IN CLINICAL TRIALS OF DRUGS IN UKRAINE**

Kolodyezna T. Yu.

Scientific supervisor: prof. Dobrova V. Ye.

National University of Pharmacy, Kharkiv, Ukraine

clinpharm@nuph.edu.ua

**Background.** Issues of development and implementation of quality management tools in practical activity have recently received a lot of attention from both foreign and domestic scientists. Nowadays, the work on identification of the need for harmonization of quality management systems (QMS) of different parties and organizations involved in the processes of clinical trials (CT) of drugs organizing and conducting, development of methods for the efficiency of quality management tools