

## OTC-DRUGS FOR HEARTBURN TREATMENT IN CHILDREN IN UKRAINE

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**Introduction.** Heartburn is a common symptom of the digestive system diseases, especially the gastrointestinal tract diseases, for example, gastritis, peptic ulcer, gastroesophageal reflux disease, etc. Also heartburn may be a symptom of nutritional errors in healthy people, including children. For symptomatic treatment of heartburn over-the-counter antacids are widely used. But, if antacids are not properly applied, a variety of side effects may occur. An important task is to prevent the side effects of antacids in their use in children.

**Aim.** Study the antacids in the Ukrainian market and determine the possibility of their use in children of different ages.

**Materials and methods.** A descriptive method for comparing the clinical and pharmaceutical properties of antacids was used. Instructions for the medical use of antacids registered in Ukraine were the objects of study.

**Results and discussion.** Currently, 30 trade names of antacids are registered in Ukraine. 100% of antacids are non-prescription drugs and can be applied by parents of children without a doctor consulting. The vast majority of antacids (76.7%) contain aluminum compounds (phosphate, hydroxide, magaldrate, etc.). 10 (33%) antacids are presented in suspension dosage forms, 1 (3.3%) in oral gel, 13 (43.3%) – chewable tablets, 1 (3.3%) – soft capsules, 3 (10%) – resorption tablets, 2 (6.7%) – tablets. So, forms which are convenient for use in children (oral suspension and gel) are 36.3%. Cations of aluminum can contribute to the development of constipation, encephalopathy, osteoporosis. The latter are especially dangerous for a growing child's body. Nevertheless, in this group there are drugs that are approved for use in children, including a young age. For example, aluminum phosphate is allowed to be used since the first month of life, hydrotalcite – after 6 years, a simple combination of aluminum and magnesium hydroxides – 10 years, and adding of simethicone led to an increase of age up to 14 years. The remaining antacids, including the calcium and magnesium carbonates combination, are allowed for use only after 15 years old.

**Conclusions.** Taking into account the age restrictions of antacids usage, their possible side effects, as well as difficulties in symptom diagnostics in children, the pharmacist must to prevent uncontrolled use of antacids in children by parents. Pharmacist must specify the age of the patient and necessarily send to a pediatrician if the antacid is bought for the child without a prescription.

## CLINICAL AND PHARMACEUTICAL ASPECTS OF USE OF NEUROPROTECTIVE DRUGS IN PATIENTS WITH NEUROLOGICAL PROFILE

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**Introduction.** Over the past 10 years, there has been a significant increase in the incidence of neurological diseases worldwide. In particular, according to a special study by WHO, one in four people in the world suffers from a neurological disorder. The most common of these are epilepsy (more than 50 million people) and dementia (about 24 million patients with Alzheimer's disease plus other pathologies). Further on the frequency are the consequences of injuries, neuroinfections, Parkinson's disease and the consequences of a stroke. At the same time, the problem of neurological diseases affects people in all countries, regardless of age, sex, education or income. About 6.8 million people die each year as a result of neurological diseases. In Europe, the economic losses from the treatment and deaths of this group of diseases were estimated at about 139 billion euros in 2004. It should be remembered that in most countries of the world access to proper care of people with neurological disorders is difficult.

The current statistics on the risk factors and epidemiology of neurological diseases are mainly based on research in North America or Europe. And about developing countries, including Egypt, there are only single publications. In particular, the prevalence of neurological disorders was established at 4.6%, i.e. much more than in developed countries. Therefore, the increasing effectiveness of the treatment of these diseases is especially important for Egypt. In particular, through the rational use of drugs of neurological orientation.

**Aim.** The aim of the study was to evaluate the rationality of the use of drugs from the group of neuroprotectors for the treatment of neurological diseases in accordance with the approved protocols of its conduct and further development of appropriate practical recommendations. As part of the research objectives the following tasks: 1) Collection of data on the use of certain neuroprotective drugs in the treatment of neurological diseases in departments of one of the major hospitals in Cairo (Egypt); 2) Analysis of cases of irrational use of neuroprotective drugs among patients with concomitant diseases and conditions that could have a similar negative effect; 3) Develop recommendations on the provision of pharmaceutical care to doctors and patients to improve the effectiveness and safety of the use of neuroprotective drugs.

**Materials and methods.** To accomplish this goal, a clinical and pharmaceutical analysis of 127 case histories of patients with neurological diseases (mainly discirculatory encephalopathy – DE) aged 50 to 75 years (35 men and 92 women) in inpatient treatment in the neurological and therapeutic departments of one of the major hospitals in Cairo (Egypt). Patients were hospitalized in the medical departments for the second half of 2017.

**Results and discussion.** In 55.1% of the examined DE developed against a background of arterial hypertension, and in 59.8% the factor of cerebral arteriosclerosis predominated, respectively, 20 and 57.1%. In addition to the corresponding etiotropic drug therapy, all 127 examined patients used neuroprotectors. Overall, 334 preparations of this group were prescribed, an average of 2.6 per patient. In 32 patients (25.2%) four or more drugs were prescribed, which indicates a polypharmacy and leads to an increased risk of side effects. In the medical literature, it is noted that this is a common mistake, which increases in frequency with the age of the patient.

**Conclusions.** In general, irrational use of neuroprotectors was detected in 70 cases out of 334 (21.0% of prescriptions), and in 48 cases (14.4% of patients), the development of side effects was noted. In the overwhelming majority of cases, given the patient's concomitant pathology and taking certain drugs, it was possible to prevent. Undoubtedly, in order to increase the rationality of drug therapy with the use of neuroprotectors, a careful analysis of the planned and correction of the ongoing pharmacotherapy is necessary. All this justifies the need for the clinical pharmacist to participate in the therapeutic process of patients with neurological pathology.

## **COMPARATIVE ANALYSIS OF MEDICAL PRESCRIPTIONS OF ANTIHYPERTENSIVE DRUGS IN UKRAINE AND NIGERIA**

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**Introduction.** Practical prescriptions of antihypertensive drugs in different country depend on the national guidelines, race condition and adherence of doctors to follow standards of treatment. Ukraine has national recommendation for treatment hypertension; it is corresponds to ESC guidelines. Nigeria use BHS recommendation.

The **aim** of our research was to compare practical prescriptions of antihypertensive drugs in Ukraine and Nigeria to evaluate adherence of doctors to choose rational pharmacotherapy of hypertension.

**Material and methods.** We have analyzed 40 Case History of Caucasian race patients from therapeutic hospital in Kharkov, Ukraine and 60 Case History of Black patients from Nigeria Light Hospital. All patient had Essential Hypertension as main disease.

**Results and discussion.** Monotherapy was prescribed to 47.5% patient in Ukraine and to 16.67% patient in Nigeria. As monotherapy patients received group A (ACE inhibitors or ARBs) in 35% cases and