## basis of public health institutions and pharmaceutical faculties of higher educational institutions. THE STUDY OF MECHANISMS TO ENSURE THE AVAILABILITY OF ESSENTIAL MEDICINES IN UKRAINE

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**Introduction**. In Ukraine is reforming health care, the main purpose is to ensure the quality and accessibility of medical and pharmaceutical care for the population. To this end, the government is implementing state regulation of prices of essential medicines. Ukraine has extremely high rates of morbidity from type II diabetes (about 1 million) and asthma (over 200,000 patients). And the number of deaths due to cardiovascular disease, our country, unfortunately, is in the second position of the world ranking (more than 12 million patients). During the last 5 years, the government has been conducting pilot projects to provide certain categories of patients with necessary drugs.

**Aim**. Analyze methodological approaches to the determination of reference prices and compensation of the cost of medicines for three pilot projects on state regulation of medicines prices.

**Materials and methods**. An analysis of the regulatory framework the determination of reference prices and the reimbursement of the cost of medicines, a survey of pharmacists and pharmacy visitors.

**Results and discussions**. The analysis of the results of the implementation of the pilot project on the reimbursement of the cost of drugs for hypertension (2012-2014) has been carried out. These project includes 10 INN of medicines: Enalapril, Enalapril and thiazides, Lisinopril, Lisinopril and thiazides, Bisoprolol, Metoprolol, Nebivolol, Amlodipine, Amlodipine and lisinopril, Nifedipine. The reference price (price of reimbursement) per DDD is defined as the relevant percentage of the retail price (the marginal wholesale selling price specified in the register multiplied by a factor of 1.375). The cost of the drug was reimbursed in three price groups: the first group – the medicine, the cost of which is subject to partial reimbursement of 90%, the second group – 60-80%, and the third – medicines, the cost of which is not reimbursed. Reference countries: Republic of Bulgaria, Republic of Moldova, Republic of Poland, Slovak Republic, Czech Republic (main) and Republic of Latvia, Republic of Serbia and Hungary (standby). As a result of project implementation, the indicators of the incidence of stroke declined by 18%, the number of urgent medical care calls for hypertensive crises – by 27.4%. The commitment of not only patients to treatment, but also doctors to prescribing recipes has increased.

The pilot project for the provision of insulin to patients with diabetes mellitus began in 2016. When calculating the reference prices of full or partial reimbursement, the average arithmetic value of the wholesale price of the trade name of the insulin preparation in the reference countries for the primary packaging is determined. Reference countries – Republic of Bulgaria, Republic of Moldova, Republic of Poland, Slovak Republic, Czech Republic, Republic of Latvia, Republic of Serbia and Hungary. The register of reference prices (refund prices) for insulin preparations contains 70 items. The cost of insulin drugs is reimbursed to 11 categories of patients included in the register of patients requiring insulin therapy.

From April 1, 2017, the government program "Available drugs" was introduced. This pilot project includes 23 international non-proprietary names of drugs for the treatment of diseases that have the greatest impact on mortality rates or significantly reduce the quality of life of the patient and are effectively treated at the outpatient level. These drugs are for treatment: cardiovascular diseases: Amiodarone (8 trade names), Amlodipine (10), Atenolol (4), Verapamil (4), Hydrochlorothiazide (1), Spironolactone (5), Furosemide (4), Digoxin (2), Enalapril 10), Isosorbide dinitrate (1), Carvedilol (10), Clopidogrel (10), Metoprolol (8), Simvastatin (9), Bisoprolol (9), Nitroglycerin (3), Losartan (10); type 2 diabetes: Glyclazide (8), Metformin (10), Glibenclamide (3); bronchial asthma: beclomethason (3), budesonid (6), salbutamol (3). Reference prices for medicinal products are determined on the basis of data on registered prices, namely, as the median of the registered prices for each dosage form (DDD) according to the WHO Recommendations from the List of INN Received from official sources of authorized state bodies of reference countries (Republic of Poland, Slovak Republic, Czech Republic, Republic of Latvia, Hungary). Marginal supply-distribution surcharge are in the amount of 10%, and marginal trade (retail) surcharges – 15 %.

As a result of a survey of pharmacists and pharmacy visitors, we found the following problems: queues for a prescription physician and drug reception in the pharmacy; low professionalism (competence in this matter); lack of medicines in pharmacies; small area coverage; irrational choice of drugs (some drugs are not used or received other doses abroad). As ways of solving the problem, it is proposed to create favorable conditions for pharmacies in order to attract them to the pilot project; holding seminars for medical and pharmaceutical workers; wide public awareness, viewing the list of drugs.

**Conclusions.** In the absence of medical insurance and limited resources for health protection, pilot projects allow the development of mechanisms for compensating for the cost of treatment. Go to the reference pricing system will reduce prices, increase the availability of medicines and rational use of limited resources.

## ANALYSES OF THE LEBANON'S PHARMACEUTICAL SECTOR FUNCTIONING

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**Introduction.** The pharmaceutical sector in Lebanon is complex and the high medicines bill could be due to many overlapping elements. The Lebanon's economics is at the stage of transformation. But reforms alone are not the goal of the republic's development. Their main task is to ensure the growth of the well-being of citizens, which requires the rapid turn of the reform vector towards their social orientation. Many health problems remain urgent, such as improving the effectiveness of the functioning of medical institutions, as well as ensuring accessibility, efficiency, safety and rational use of medicines.

**Aim.** In connection with the foregoing the aim of this study is to study of the current state of health and the pharmaceutical sector in Lebanon.

**Materials and methods.** Information base of research includes literary data, data of statistical reporting, official statistic data of the WHO, legislative and regulatory acts. Among the methods that were used include: statistical, historical, analytical methods and comparison analyses.

**Results and discussion**. The majority of registered medicines in Lebanon are imported, mostly from Europe and the USA. They account for about 90% share (value) of the pharmaceutical market and are imported by 131 importers. Local pharmaceutical production is weak due to the high costs involved. As a result, Lebanon is the leading market for imported pharmaceutical drugs in the Levant.

According to BMI (Business Monitor International) estimations, pharmaceutical sales in Lebanon reached \$1.63B in 2015 and \$1.75B in 2016. Thus, the pharmaceutical market in Lebanon is valued at over USD one billion, with potential growth of more than five percent yearly.

Patented drugs constitute around 50 percent of the market, and over-the-counter (OTC) and generic drugs constitute around 25 percent each. There are 9 manufacturers of drugs, 39 Drug Stores in the country all operating below capacity and achieving a share of only10% of the local market. Over the Counter medicines are largely under promoted in Lebanon and their share in the total market is expected to drastically decline for two main reasons: the first is the fact that prescription drugs are taking over most of the market and the second is the enforcement of stricter manufacturing and promotional requirements of herbal and nutritional products. Moreover, the Lebanese consumer is not one to seek self-medication but would rather consult a doctor and get a prescription instead.

In 2015, the spending on OTCs amounted to \$339M or 20.8% of the total market and will grow slightly to \$343M in 2016. Through 2020, the OTC market is expected to register a meager CAGR of 1% to reach \$346M in 2020 and will register only 15.7% of the total market. The best-selling categories in the OTC segment are analgesics in first place and cough and cold treatments in second place. BMI notes that Lebanon has the capacity to produce most of the basic OTCs domestically but imports are still the consumers' favorites. Most Lebanese opt for the painkiller Panadol from GlaxoSmithKline instead of a local equivalent.

A fixed price for marketed drugs is set according to the law and reaches 1.7 times the original price. The price structure is broken down as such: The ex-factory price (100), the shipping and insurer expenses