

**Material and methods:** Descriptive study of drug reimbursement systems in different countries and the analysis and differentiation of the training determinant factors of the range of drugs.

**Results:** The survey is based on the drugs reimbursement system within the health insurances from 40 countries from different geographical areas. The pharmaceutical systems was entirely investigated, specifying drug reimbursement systems in out-patient and in-patient sector. As a result were relieved the basic training indicators of the range of drugs and of the reimbursement of their cost: the reimbursement schemes; co-payments on medicines; patient's social class; correlation between personal incomes and expenditure for drugs, Rx or OTC drugs, reference pricing policy, medicines evaluation criteria to be covered on positive list; medical, economic and social performance of the drug. The basis of the assessment of the reimbursement schemes carries description of reimbursement eligibility according to the 4 general types: product-specific eligibility, disease-specific eligibility, population-group-specific eligibility, consumption-based eligibility. The most used benchmark is the specific of the product - 33 or 82,5% of states, and the specific of the disease accounting for 15 countries (38%). Presence of all the eligibilities was found in 13(32%) states. In 38 (95%) countries is used the out-of pocket payments. For the out-patient sector, out-of pocket payments include 4 types of co-payment: fixed; percentage (the most commonly used - 28 states (68%); reference price system; deductibles; their various combinations is extensively use in 15 (38%) states; for the hospital sector co-payment is present in 2 states. In 24 (62%) of the analyzed countries, is used reference price system as a factor correlated with the patient's co-payment and the amount of reimbursed medicines. As criteria for reimbursement of drugs are used, as well, the following: for inpatient sector: the presence of clinical guidelines, the clinical benefit, the convenience of use and the price of the drug; for the outpatient sector: the cost-effectiveness analysis, the cost benefit, the pharmacoeconomic studies results, the impact on insurance companies budget, the value and therapeutic benefit.

**Conclusions:** As a result of the survey was determined that in different countries are used various index for the training of the drug reimbursement lists and systems, provision and use of which guarantees the functioning effectiveness of the drug compensation system.

**Keywords:** indicators, reimbursement, drugs.

## ARGUMENTATION OF THE COMPONENT OF COMBINED ANTIBACTERIAL EAR DROPS

Iuresco Tatiana, Suvorchina Olga, Tihon Iurie

*Academic adviser:* Livia Uncu, Ph.D., Associate Professor, State Medical and Pharmaceutical University "Nicolae Testemițanu", Chisinau, Republic of Moldova

**Introduction:** Combined medicines have an important role. They provide the advantages of combination therapy, extending the range of therapeutic options, also exclude the necessity of extemporal preparation of prescription formulations. However, it should take into account that the therapy with combined drugs it must be known the full composition of drug and pharmacological properties of each component, even if the properties are well known.

**Materials and methods:** For research it was used State Nomenclature of drugs from Republic of Moldova (01.04.2012); Nomenclature of drugs of Romania (01.01.2012); State Register of drugs of Russia (01.01.2012); Formulation of European Medical Agency (01.01.2012); Formulation of USA (FDA Drugs) (01.01.2012); Formulation of Canada (01.01.2012); Great Britain Formulation (01.02.2012); instructions for use of drugs; Standards of quality of analytical documents and therapeutic protocols in otorhinolaryngology (section "ear diseases").

**Results:** The last years in the world pharmaceutical market appeared an huge number of drugs, including ear drops. Many of them are analogues of known drugs with the same composition, but with a different brand name and various manufacturers. In Moldova the arsenal of remedies with topical and ear application is quite low and there is only one local producer-Depofarm Gmb., which produces a single name for ear drops. There were proposed to analyze the composition and pharmacological action of substances containing in the most common ear drop to develop the new combinations, to increase the efficiency of treatment. The most products (58.3%) are combinations of antimicrobials, corticosteroids, antiinflammatory, anesthetic and antiseptic medicines. Unfortunately, there are not registered medicines of vegetable origin. The study records observations in the ORL department of the Municipal Hospital E. Coțaga, Chisinau revealed a large number (%) of admissions with diagnosis of otitis, especially perforation. The main goal in patients treatment with inflammatory diseases of the outer and middle ear is a local antibacterial and antiinflammatory one. A group of drugs commonly used for these diseases are fluoroquinolones antibiotics. The most popular fluoroquinolone antibiotic is *ciprofloxacin*. It has a broad spectrum of activity and is active against gram-positive and gram-negative microorganisms, as well as Chlamydia. Because of this it was chosen *ciprofloxacin* as the main active substance in the development of combined ear drops. Also, in combined therapy of inflammatory diseases it is important for medicines to contain raw vegetable materials. It was selected the plant basil (*Ocimum basilicum* L.). It is used in medicine for its antibacterial, antiinflamator, antiseptic, antispasmodic effects.

**Conclusions:** In conclusion it is important to develop a new antibacterial composition for ear diseases, containing raw vegetable materials.

**Keywords:** ear drops, combined drugs, antibacterial medicines, ciprofloxacin, basil.

## ELABORATION OF ANTISEPTICAL SOLUTION ON THE BASE OF ALCOHOLS

**Paduraru Natalia, Bobrov Elena, Baranetchi Iana**

*Academic adviser:* Livia Uncu, Ph.D., Associate Professor; Nicolae Ciobanu, Ph.D., Associate Professor, State Medical and Pharmaceutical University “Nicolae Testemitanu”, Chisinau, Republic of Moldova

**Introduction:** Actually, it is proved that a large part of hospital infections are caused by poor hand hygiene. It is very important for hands to be clean and without pathogens, which can be achieved only by applying disinfectants. The WHO's guidelines indicate that the best disinfectant for hands is the one which is based on alcohol, being more effectively against the agents of hospital infections and also it has a good compatibility with skin. Unfortunately, the most disinfectants that are used both in our country and abroad do not satisfy the requirements of effectiveness, harmlessness, ecology, etc. Studies showing the adequacy or inadequacy of hand cleansing by microbiological proof are few. From these few studies, it can be assumed that hands remain contaminated with the risk of transmitting organisms via hands. Their results showed that hand contamination with transient organisms was significantly less likely after the use of an alcohol-based hand rub compared with the medicated wipe or soap and water.

From 52 disinfectants which are registered and approved in Republic of Moldova, only 4 of them are recommended and can be used for surgical disinfection of hands. For all of these, they are all imported and quite expensive. Due to all these, we propose to elaborate a local antiseptic solution for hands, based on ethanol and isopropanol with a fast action and a broad spectrum of antimicrobial activity. It also ensures an optimal pH for hands. The auxiliary substances which will be used will not irritate skin, even after a long use.