## ANALYSIS OF PROPOSALS AT THE MARKET OF WEIGHT LOSS DRUGS

Allaaedi Mohamed Rahi (Iraq, Baghdad), S.V. Zhadko (Ukraine, Kharkiv) svzhadko@mail.ru

Obesity is a chronic disease that develops as a result of complex long-term disorders of fat metabolism with excessive accumulation of fat in different parts of the body and accompanied by an increase in body weight and subsequent development of different complications. Obesity is an urgent medical and social problem because of its prevalence, negative impact on the quality of life, health of the population and high disability related to it. In 1997 WHO experts declared an obesity epidemic, which spreads among the population of our planet. In accordance with the conclusions of the International Congress on Obesity (Sydney, 2006), obesity should be considered as a large-scale epidemic of non-infectious nature: overweight have more than one billion people (15% of the world's population) and this figure is constantly growing, especially in developed countries.

The United States is currently the biggest single market for weight loss drugs, with around 68 percent of the population either overweight or obese, followed by the UK and other European countries. However, China, Russia, India and Brazil could soon begin to eclipse Western countries in terms of its obese populations. For example, China's obesity and overweight levels are predicted to reach 665 to 670 million in 2017. In Ukraine the prevalence of obesity among persons over 45 years is 52%, and overweight – 33% (the prevalence of obesity and overweight together is 85%). According to epidemiological projections, if the current growth rates are maintained, until 2025 about 40% of male and 50% of female will have overweight or obesity. Significant role in the correction of overweight and obesity plays remedies of anorectic effect, market development and consumption of which in each country depends on a number of legislative and legal, economic, social, cultural and other factors.

Even with numerous setbacks, the pharmaceutical industry remains attentive to the anti-obesity drug market because of the global obesity epidemic. The medical community and public continue to expect that pharmaceutical companies will eventually develop a pill or other delivery mechanism that is safer, shows greater results, and has fewer negative side effects than drugs currently on the market.

Remedies used for obesity treatment (except diet products) are in a group A08A according to ATC-classification. On 10.03.2015 in Ukraine are registered only 9 medications of group A08A. The largest number of registered trade name refers to group A08AB – medication with peripheral mechanism of action which used with obesity. Among them is orlistat (A08A B01) which occupies about 58% of the commodity market's segment. The original medication Xenical (120 mg capsules) of a Swiss company F.Hofman-La Roche has been introduced in Ukraine from April 2000. In 2006 in Ukraine has been registered a generic medication Orlistat (IBN Hayyan Pharmaceuticals, Syria); in 2009 – Orlip (GM Pharmaceuticals, Georgia) and Xenistat (Precise Biopharma Pvt. Ltd., India); in 2010 – Orlikel (Ajanta Pharma Limited, India); in 2011 – Alai (GlaxoSmithKline Consumer Healthcare LP, USA Famar S.A., Greece; Catalent UK; Packaging Ltd., UK) and Orsoten (KRKA-Rus Ltd., Russian Federation).

At this time in Ukraine there are no anorectic medications with central action (A08A A) which for a long time were presented by only one international nonproprietary name – sibutramine. The European Committee for Medicinal Products for Human Use on the basis of long-term study SCOUT (Sibutramine Cardiovascular Outcomes) concluded that the risk of cardiovascular complications associated with the use of medications containing sibutramine exceeds benefits. It was recommended to suspense the licenses for their sale in European Union. Similar administrative decisions regarding sibutramine were accepted in Australia, Canada and USA.

Homeopathic remedies (Cefamadar, Ves-Norma) and medications of plant origin (Hoodia, Stifimol) used for obesity are sold in pharmacies without doctor's prescription. Cefamadar, tablets 250 mg (Cefak, Germany) influences on the centers of hunger and saturation of the intermediate brain which leads to a decrease in appetite. Ves-Norma (NGS, Ukraine) is a comprehensive homeopathic remedy containing substances of plant and mineral origin. Ves-Norma reduces hunger, helps normalize lipid and carbohydrate metabolism, normalizes thyroid function and reproductive glands that regulate these kinds of metabolism. Herbal remedy Hoodia (A08A A11), 500 mg tablets, produced by Unipharm (USA) contains an extract of Hoodia Gorgonii depressing appetite and soluble dietary fiber that contribute to peristalsis and facilitates the rapid development of saturity. Also in Ukraine are registered medicines Lipomin and Questa producted by Tabco Pty Ltd, Australia. Lipomin contains chitosan, hydroxycitrate complex, chromium chloride, dry extract of beans Phaseolus vulgaris. Questa contains hydroxycitrate complex, chromium picolinate, dry extracts of green tea, beans Phaseolus vulgaris, fruits Vaccinium myrtillus, seeds Vitis, leaves Gymnema sylvestre, fruits Citrus aurantium, fruits Foeniculum vulgare, herb Galega officinalis, rhizome Zingiber officinale).

Also the pharmaceutical market of Ukraine offers a variety of special dietary supplements for weight-loss and prevention of obesity. The composition of dietary supplements often include chitosan, chromium picolinate, some fatty acids, alkaloids of Ephedra, including ephedrine, garcinine etc. Most herbal remedies and dietary supplements for weight loss have not properly proven activity or they are not safe due of the risk of serious and unpredictable side effects.

Remedies for weight loss are mainly represented on the Ukrainian market in the form of capsules, tablets and granules. Special dietary supplements have a greater variety of consumer characteristics: different types of dosage forms (capsules, tablets, herbal teas, sachets, dragee), flavoring admixture, positioning depending on age, gender, direction of activity and so on.

Many weight-loss drugs are sold in Ukraine without a prescription. Consumers often make decisions about their purchase without prescription or consultation with a doctor. They actively use different source of information including the Internet. Thus there is a need to study the consumer preferences and factors influencing consumer choice in point of drugs weight loss drugs.