

Reimbursement and value assessment frameworks: ensuring patients' access to asthma medicines in Ukraine

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Abstract

Background. Health technology assessment (HTA) introduction and implementation for development of the National List of Essential Medicines (NLEM) took place in Ukraine in 2016 in the context of National Drug Policy until 2025. The study aimed to outline the reimbursement of medicines for asthma treatment, market access for innovative medicines, main steps of HTA development in the decision making process in Ukraine in line with the international requirements and future directions.

Methods. Literature review was conducted examining legislation database and scientific publications on the study issues in Ukraine: epidemiology of asthma, reimbursement programs, HTA development, affordability of innovative medicines for asthma treatment, market analysis. The study was performed to investigate the practices, processes and policies of value assessment and their impact in Ukraine.

Results. In 2016 a legal framework was developed for the elaboration of NLEM and procedures for reference pricing and reimbursement programs. HTA is used for the inclusion medicines on the list based on the applied evidence of quality, efficacy, effectiveness, safety and economic evaluations adhering to the Order of Ministry of Health (MoH). HTA implementation in 2016 consisted of legislation, HTA training for experts of Expert committee of MoH and development of NLEM. Reimbursement programs for cardiovascular diseases, type 2 diabetes (T2D), asthma have started in April 2017 due to the adopted regulations.

Conclusions. HTA use in the decision-making in Ukraine will provide an access to innovative medicines for patients and transparent, consistent decision making process in assessing the health technologies for inclusion on regulatory lists and reimbursement programs.

Introduction: epidemiology of asthma in Ukraine

Asthma is a common, chronic respiratory disease affecting 1-18% of the population in different countries. Symptoms and airflow limitation may resolve spontaneously or in response to medication, and may sometimes be absent for weeks or months at a time. On the other hand, patients can experience episodic exacerbations of asthma that may be life-threatening and carry a significant burden to patients and the community.^[1]

In 2015 has been a consistent growth of the incidence of respiratory diseases compared to 2014 and was 1,1 % or increased from 15 053,6 to 15 216,2 patients per 100 000 of adult population (18-100 years) in Ukraine. Also prevalence of respiratory diseases increased compared to 2014 by 5,1% or from 21 180,6 to 21 470,5 patients per 100 000 of adult population.^[2]

The incidence of asthma increased in 2015 compared to 2014 by 3,6% or from 22,2 to 23,0 patients per 100 000 population. The highest incidence was in Dnipro region 50,7, Kharkiv region 37,7 and Zaporizhzhya region 33,7 per 100 000 population.^[2]

In 2015 the prevalence of asthma increased compared to 2014 by 0,3% and amounts to 489,8 per 100 000 adult population (in 2014 – 488,4 per 100 000 population). Mortality from asthma in 2015 compared to 2014 has not changed and was 0,3 per 100 000 adult population. Rate of hospital mortality at asthma has increased by 16,7% or from 0,06 to 0,07 per 100 000 population (Table 1). The average duration of treatment of a patient in hospital decreased by 1,2% in 2015.^[2]

However, according to official statistical data of MoH of Ukraine, in the recent ten years (2005-2014) was observed a clear tendency to decrease the incidence of asthma in children by 17,1% and prevalence by 17,5%.^[2-4] (Table 2)

Table 1. Epidemiology of asthma in adults per 100 000 population in Ukraine (2014-2015)

№	Indicator	2014	2015
1	Prevalence	488,4	489,8
2	Incidence	22,2	23,0
3	Mortality	0,3	
4	Hospital mortality	0,06	0,07

Table 2. Epidemiology of asthma in children (0-17) per 1000 in Ukraine (2012-2014)

№	Indicator	2012	2013	2014
1	Prevalence	5,61	5,50	4,97
2	Incidence	0,59	0,56	0,52

We found the high burden of asthma based on the disability-adjusted life years (DALY) approach in 2015. Burden of asthma was 0,69% of total DALY in 2015 due to World bank data in Ukraine and -3,05% annual change.^[5]

The development of clinical guidelines has been provided by main clinicians and researchers of asthma treatment. In 2013 was approved standardized clinical protocol for primary, secondary (specialized) medical care “Asthma” and “Asthma in children”, approved by Order of MoH dated 08.10.2013 № 868.^[6]

Based on the statistical data, high burden of asthma in adults the reimbursement program have started for asthma medicines in Ukraine in April, 2017.

Reimbursement programs

According to Resolution of the Cabinet of Ministers of Ukraine “On state regulation of prices on medicines” dated 09.11.2016, № 862 was started implementation of the new state price regulation on the drugs for cardiovascular diseases, T2D and asthma. Also the Resolution of the Cabinet of Ministers of Ukraine “On implementation of reimbursement” dated 09.11.2016, № 863 was adopted. According to the bylaws such medicines have to be registered and included on the National List of Essential Medicines. The state budget funding is approved in the amount of 18,5 mln USD for this reimbursement program in 2017.^[7, 8]

There is international reference pricing and reference prices are calculated based on the prices in 5 countries: Poland, Latvia, Slovakia, Hungary and Czech Republic. In particular, Resolution of the Cabinet of Ministers of Ukraine № 862 introduced state regulation of marginal prices for medicines by comparing the prices in reference countries. The price is determined according to prices reflected on official web-sites of the Ministries of Health or other authorized state bodies which maintain registers of prices in these 5 countries. Marginal wholesale prices calculated as a median reference prices for such medicines in the reference countries with terms defined daily dose as recommended by WHO.

The participation in the reimbursement program is voluntary both by the pharmaceutical companies and pharmacies.

The reimbursement decision is made by the MoH. The sole criteria for inclusion to any of the aforementioned reimbursement groups is correlation of the marginal price of the medicine with the marginal prices of other medicine with the same INN or with the prices of defined daily dose of respective medicines in reference countries. Application for reimbursement by pharmaceutical company need to be provided including the following information: INN, brand name, form, dosage, number of units of a medicinal product in consumer packaging, ATC code, manufacturer, country, number of registration certificate in Ukraine, expiration date of the registration certificate to the drug, wholesale price per unit dosage form of a set dose (UAH), wholesale price for the package (UAH), about authorization holder for the medicinal product (name, address and full name of the head), information about the applicant (name, address and full name of the contact person).

The patients have to pay the difference in the retail price and reimbursement price established by the MoH for the medicines in reimbursement program (Table 3). The current reimbursement list includes partially and fully reimbursed drugs. The co-payment amounts to 13%. According to the outcomes of this reimbursement program, there is intention to expand the list of drugs by combined forms.

Health technology assessment use in decision-making

In 2016 the legislation on HTA was implemented in Ukraine. There were approved regulations on NLEM and Expert Committee (Order of MOH № 84 dated on 12.02.2016), and regulation on the selection of medicines for inclusion on NLEM (Order of MOH № 1050 dated on 07.10.2016).^[9, 10]

Table 3. Reimbursement list of medicines for asthma treatment

INN	Dosage form	Price per pack, UAH (1 EUR=28,6 UAH)	Co-payment, %
Beclometasone	aerosol for inhalation	243,64	0
Budesonide	suspension for spray,	525,45	0
	powder for inhalation dosed	605,77	13
Salbutamol	solution for inhalation,	70,38	0
		aerosol for inhalation	77,99
	aerosol for inhalation	81,21	13

HTA submissions are mandatory for the inclusion of medicines on NLEM based on the criteria: levels of morbidity, disease prevalence, evidence on comparative effectiveness, safety, pharmacoeconomic analysis, according to clinical standards.

Based on the regulations NLEM provides the population with medicines in health care facilities wholly or partly financed from state and local budgets. The legislation of Ukraine establishes that essential medicines must be available in healthcare facilities at any time, in the necessary quantity and in appropriate dosage forms to ensure an adequate level of the healthcare.

If 100% of the volume of the needed medicines included in the NLEM is procured, customers will be able to procure medicines registered in Ukraine that are not included in the NLEM.

The purpose of the updated National List is to ensure the priority needs of medical care for the population in health facilities for treatment purpose at the expense of state and local budgets. At the same time, the volume of demand for the procurement of medicines will be determined by healthcare facilities.

Affordability of innovative medicines for asthma treatment

The long-term goals of asthma management are to achieve good symptom control, and to minimize future risk of exacerbations, fixed airflow limitation and side-effects of treatment. The patient's own goals regarding their asthma and its treatment should also be identified. Effective asthma management requires a partnership between the person with asthma (or the parent/carer) and their health care providers^[1].

The greatest success achieved today in the development of new drugs for the treatment of so-called atopic, eosinophilic asthma dominated Th2-type inflammation. One of the most promising therapeutic target in asthma is currently considered interleukin-5 (IL-5), which plays an important role in eosinophilic inflammation. Mepolizumab have been well studied in asthma based on monoclonal antibodies to IL-5 receptor. The studies found that the use mepolizumab in severe asthma reduces the number of eosinophils in the airway mucosa, blood, sputum, and according to some sources reduces the number of exacerbations. Omalizumab have been introduced into treatment scheme for several years

for patients with moderate or severe allergic asthma as higher level care and/or add-on treatment. According to GINA mepolizumab also became the drug of choice for treating severe eosinophilic asthma in 2016. Two other drugs that block IL-5 receptors - benralizumab and reslizumab - demonstrated efficacy in the treatment of severe asthma in clinical trials IIa and IIb stages and are currently in phase III clinical trials. An important role in the pathogenesis of eosinophilic asthma plays cytokines such as IL-13 and -4. There are under development a number of drugs that block these cytokines. Some of them show promising results (altrakintsept, dupilumab, lebrikizumab, tralokinumab, anrukizumab, pitrakinra, Amg-317). The most effective drugs in this group of patients with so-called Th2-associated phenotypes of asthma, which can be identified by means of biomarkers periostin.^[1,11]

Discussion

The results of a market analysis of innovative medicines used in the treatment of asthma indicated that the Ukrainian market mostly corresponds to clinical demands and international treatment guidelines. For example, omalizumab – a monoclonal antibody that binds to IgE, has a Ukraine marketing authorization as add-on therapy to improve control of asthma in adults and adolescents 12 years and over. The weighted average price for omalizumab is 10 386 UAH per pack (powder for solution for injections 150 mg/ml) in Ukraine. The cost for 16-week treatment scheme is 334 196 UAH per one patient from patient's perspective (1 EUR=28,6 UAH). The treatment of severe asthma with omalizumab is not reimbursed within the drug program in Ukraine.

It should be noted, that this innovative therapy in Poland is reimbursed within drug programs. Since March 2013 omalizumab therapy became available in Poland as part of the drug program. Currently treatment with omalizumab is carried out by the 42 treatment centers who have concluded for this purpose additional contract with the National Health Fund. It seems that access to treatment should be good, because there is at least one center located in each of 16 regions.^[12]

Anti-interleukin-5 humanised monoclonal antibody – mepolizumab marketing authorization can be promising for patients in Ukraine.

There are social programs for asthma patients in Ukraine: Terapia-plus (budesonide/formoterol) and Orange card (salmeterol/fluticasone). These programs allow patients to buy medicines with discounted prices 25-50%.

The review demonstrated that in 2016 was approved legislation for HTA and its use in the decision-making in Ukraine. MoH is going to develop e-health to improve patient care, safety and health service efficiencies. The implementation of e-registries for patients with asthma will provide access to real world evidence of treatment outcomes and more informed decisions.

Conclusions

Current epidemiological data in Ukraine shows a clear tendency to decrease the prevalence and incidence of asthma in children, but to increase in adults.

For the first time in Ukraine reimbursement program for asthma will be launched in April 2017 to ensure better patients' access to medicines. The results of a market analysis indicated that Ukrainian market mostly corresponds to clinical demands, international treatment guidelines. Expenditures for innovative medicines are significantly higher than average monthly income in Ukraine. Consequently reimbursement of innovative medicines can be promising for certain groups of asthma patients in Ukraine.

References

1. Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention. 2016. Available from: <http://ginasthma.org/>
2. Linnyk M.I., Nedospasova O.P., Tarasova O.R., Bushara I.V., Nikiforova L.G. Comparative data on the prevalence of respiratory diseases and medical assistance to patients with allergic disease and pulmonary profile in Ukraine for 2009-2015. Edited by prof. Feschenko Yu.I. Lira, Kyiv. 2016; 1-48.
3. Brozek G., Zejda J., Fedortsiv O., Shpakou A., Hryshchuk L. et al. Belarus Ukraine Poland Asthma Study (BUPAS) – Prevalence of asthma, respiratory symptoms and allergic diseases in children. *European Respiratory Journal*. 2012; 40(52): 46-62.
4. Antypkin Yu.G., Chumachenko N.G., Umanets T.R., Lapshyn V.F. Analysis of the incidence and prevalence of asthma in children of different age groups in Ukraine. *Perinatol and pediater*. 2016; 1(65): 95-99.
5. Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Seattle, WA: IHME, University of Washington. 2016. – Available from: <http://vizhub.healthdata.org/gbd-compare>.
6. Order of MoH dated 08.10.2013 №868 “On approval and introduction of medical and technological documents on standardization of care in asthma” – Available from: <http://mtd.dec.gov.ua/index.php/uk/reiestr-mtd/item/7-bronkhialna-astma>.
7. Resolution of the Cabinet of Ministers of Ukraine dated 09.11.2016, № 862. Available from: <http://www.apteka.ua/article/393206>.
8. Resolution of the Cabinet of Ministers of Ukraine dated 09.11.2016, № 863. Available from: <http://www.apteka.ua/article/393210>.
9. Order of MoH dated 11.02.2016 № 84. Available from: <http://www.apteka.ua/article/362317>.
10. Order of MoH dated 11.02.2016 № 1050. Available from: <http://www.apteka.ua/article/390509>.
11. Feshchenko Y.I. New approaches to the diagnosis and treatment of asthma and chronic obstructive pulmonary disease. *Theoretical and practical J. «Asthma and allergy»*. 2016; 4: 34-44.
12. Kucharczyk A., Mazurek J., Jahnz-Rozyk K. Severe allergic asthma treatment in Poland. *Journal of Health Policy&Outcomes Research*. 2016; 2. – Available from: http://www.jhpor.com/index/artukul/pokaz/severe_allergic_asthma_treatment_in_poland.