

We have proposed an algorithm and a training program which will help the organization to prepare staff for the full functioning of the energy management system.

The next step of our study we see development of a questionnaire that can reflect the level of competence of the organization's staff in the field of energy management.

## **ANALYSIS OF THE MAIN PROVISIONS OF THE RECOMMENDATIONS OF THE GLOBAL INITIATIVE FOR ASTHMA**

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**Introduction.** Bronchial asthma (BA) is the second most common respiratory disease in humans after obstructive pulmonary disease. In recent years, there has been a tendency around the world to increase the incidence of asthma and its more severe course. Over the past ten years, the World Health Organization (WHO) has taken a number of initiatives to develop a global strategy to combat asthma. These WHO initiatives are based on the fact that asthma is a growing problem. In a historically short period of time, asthma has become one of the most common chronic diseases in childhood.

**Aim.** Analyze the main provisions of the recommendations of the Global Initiative for Asthma (GINA).

**Materials and methods.** Statistical, pharmacoeconomic analysis, structural.

**Results and discussion.** According to asthma statistics, 300 million people worldwide suffer. According to an epidemiological study under the ISAAC program (International Study of Asthma and Allergy in Childhood), conducted in Ukraine in 1999-2000, the incidence of asthma was 8.1-9.8 %. However, according to official statistics, its level over the past 10 years is much lower. Boys are more likely to get sick at an early age (6 % and 3.7 %, respectively), but in adolescence the incidence of asthma becomes the same in both sexes. According to the Center for Medical Statistics of the Ministry of Health (MOH) of Ukraine, in 2017, more than 212 thousand patients with bronchial asthma were registered in our country, of which more than 37 thousand were children under 18 years of age.

There are currently many different treatments for asthma, but unfortunately there is still no single highly effective treatment, so most patients need systematic drug therapy and regular hospitalization. According to the recommendations of GINA experts (2017), the tactics and types of asthma treatment are divided into steps, each of which corresponds to the severity of the disease and how asthma symptoms respond to therapy. Each stage includes treatment options that may serve as alternatives in the choice of maintenance therapy for asthma, although not the same in effectiveness. The level (step) of treatment the doctor chooses based on the severity of the condition. If the treatment is ineffective or the response to it is insufficient, it is necessary to check the inhalation technique, adherence to prescriptions, clarify the diagnosis and assess comorbidities, and so on.

Experts of the Japanese Society of Pediatric Allergy and Clinical Immunology, as well as The Japanese Society of Allergology (2017) divide pharmacological phased long-term treatment into three age groups: children <2 years, 2-5 years and 6-15 years.

The choice of the amount of therapy appropriate to one degree or another depends on the severity of clinical manifestations of asthma. Emergency drugs include 2 pharmacological groups: short-acting  $\beta_2$ -agonists and M-cholinolytics. Short-acting  $\beta_2$ -agonists (salbutamol, fenoterol) are

used on demand for the treatment of intermittent and acute episodes of asthma. The duration of action of these drugs is 4 hours. In case of insufficient efficacy of short-acting  $\beta$ 2-agonists in exacerbation of asthma, they are combined with a cholinolytic - ipratropium bromide.

Medicines used for the treatment of asthma must comply with the provisions of the unified clinical protocol, which is developed in accordance with the Methodology for development and implementation of medical standards (unified clinical protocols) of evidence-based care, approved by the order of the Ministry of Health of Ukraine dated September 28, 2012 № 751 introduction of medical and technological documents on standardization of medical care in the system of the Ministry of Health of Ukraine "and on the basis of an adapted clinical guideline based on evidence" Bronchial asthma ", which provides best practice in providing medical care to patients with bronchial asthma. Most of these drugs are used in the form of inhalation forms using special devices - inhalers. This is primarily due to the fact that inhalation therapy is the optimal way to deliver the necessary drugs directly to the respiratory tract, as well as the presence of many advantages of this dosage form compared to others.

As a result of the analysis, it was found that the pharmaceutical market among the drugs for the treatment of asthma is dominated by imported drugs 67.60 % (48 drugs), and domestic drugs account for 32.40 % (23 drugs – drugs). In turn, it was found that among imported drugs for the treatment of bronchial asthma, the leading position is occupied by the United Kingdom (19 %), second by India (13 %), third by Finland (11 %), a slightly smaller share by Lithuania (9 %). Germany and Poland occupy 8 % each, Israel, the USA and Sweden 6 % each, Slovenia and Switzerland 4 % each, and Turkey, Jordan, and Hungary 2 % each.

**Conclusions.** According to the recommendations of GINA experts (2017), the tactics and types of treatment for bronchial asthma are divided into steps, each of which corresponds to the severity of the disease and how asthma symptoms respond to therapy.

## **ANALYSIS OF REQUIREMENTS FOR THE PROCEDURE OF ASSESSMENT OF CONFORMITY OF MEDICAL DEVICES IN COMPLIANCE WITH EU REGULATIONS MDR 2017/745 AND IVDR 2017/746**

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**Introduction.** In contrast to the market for medicines, the legislative development of the medical devices (MD) sector within the EU common market has taken place relatively recently. Compliance with European Union rules on product safety and the ability to trace non-compliant medical devices has been met in compliance with safety commitments, as well as greater integration, cooperation and assistance between public authorities. The main goal is that products placed on the EU market must be safe for the end user during use. In 2012, the Commission proposed two provisions on medical devices and in vitro diagnostic medical devices. On 5 April 2017, the European Parliament and the Council of Europe adopted and published on 5 May 2017 the EU MDR Regulation 2017/745, replacing the Medical Devices Directive № 93/42/EC and the Implantable Medical Devices Directive № 90/385/EC, and Regulation on Medical Devices EU IVDR 2017/746, which replaces Directive № 98/79/EC on medical devices for in vitro diagnostic use. From 26 May 2021, EU MDR Regulations 2017/745 and EU IVDR 2017/746 will enter into full force at the end of the transition period.