

## MEDICAL AND SOCIAL ASPECTS OF BRONCHIAL ASTHMA PREVENTION IN THE MODERN FORM OF PRIMARY HEALTH CARE ORGANIZATION IN UZBEKISTAN

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## МЕДИКО-СОЦИАЛЬНЫЕ АСПЕКТЫ ПРОФИЛАКТИКИ БРОНХИАЛЬНОЙ АСТМЫ В УСЛОВИЯХ СОВРЕМЕННОЙ ФОРМЫ ОРГАНИЗАЦИИ ПЕРВИЧНОГО ЗВЕНА ЗДРАВООХРАНЕНИЯ В УЗБЕКИСТАНЕ

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## ЎЗБЕКИСТОНДА ЗАМОНАВИЙ ШАКЛДА ТАШКИЛ ЭТИЛГАН СОҒЛИҚНИ САҚЛАШНИ БИРЛАМЧИ ЗВЕНОСИДА БРОНХИАЛ АСТМАНИ ОЛДИНИ ОЛИШНИНГ ТИББИЙ ИЖТИМОЙ АСОСЛАРИ

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*Бронхиальная астма (БА) является тяжелым хроническим воспалительным заболеванием дыхательных путей, которое представляет серьезную проблему для здравоохранения во всех странах мира. Существуют данные о росте распространенности астмы и смертности от вследствие этого заболевания, о значительном социально-экономическом ущербе, наносимым астмой.*

**Ключевые слова:** респираторные заболевания, бронхиальная астма, GINA, первичное здравоохранение.

*Бронхиал астма (БА) нафас йўлларининг жиддий сурункали касаллиги бўлиб, дунёнинг барча мамлакатларида жиддий соғлиқни сақлаш муаммоси бўлиб хисобланади. Астма ва унинг оқибатида ўлим холатлари тарқалишининг кўпайиши, шунингдек астма туфайли келиб чиққан жиддий ижтимоий-иқтисодий зарарлар ҳақида кўплаб маълумотлар мавжуд.*

**Калит сўзлар:** нафас аъзолари касалликлари, Бронхиал астма, GINA, бирламчи соғлиқни сақлаш.

**Relevance of the problem.** Among respiratory diseases, bronchial asthma (BA) is a severe chronic inflammatory disease that is a serious health problem in all countries of the world. There is evidence of an increase in the prevalence of asthma and mortality from BA, a significant socio-economic damage caused by asthma (GINA (Global Initiative for Asthma), 1995, 2002). The global prevalence of BA ranges from 5% in Central and Eastern Europe to 16.3% in Australia. In Australia, for example, the prevalence of "ever diagnosed" BA increased from 9% in 1981 to 16.3% in 1990. The great socio-economic importance of BA is determined by its wide prevalence among the world population. 100-150 million people worldwide suffer from asthma (who, 2002) [2,4]. In Russia, the prevalence of BA ranges from 2.3-3.1% in rural areas to 5.6-7.3% in large industrial centers. In the United States, the socio-economic damage caused by asthma is measured in annual losses of 3 million working days, 10 million missed days at school, 468 thousand hospitalizations, 1.8 million cases of emergency and emergency care. Mortality from BA is growing every year. In the US, BA costs account for about 1% of all health care costs [2].

Bronchial asthma has a negative impact on the social aspects of life, as an individual family, and the state as a whole. According to the world health organization annually BA causes the loss of 15 million so-called DALI (Disability-adjusted life year literally "year of life changed or lost due to disability) which is about 1% of the total global damage from diseases. The average mortality rate from bronchial asthma, obtained from 48 countries, corresponds to 7.9 per 100,000 population, in

Uzbekistan this figure is 1.4 per 100,000 patients with bronchial asthma (GINA 2011) Epidemiological studies in recent years have noted an increase in the prevalence of bronchial asthma, both in developed and developing countries, while the prevalence of BA, increased due to the growth of the disease among children, and is from 2 to 10% of the child population. Epidemiological studies conducted in major cities of the country among 8742 schoolchildren showed that symptoms of BA were detected in 29.48% (Samarkand), 21.38% (Tashkent) of the total number of respondents. The increasing prevalence, the increase in the number of patients with severe disease, indicate the lack of effectiveness of existing treatments. According to modern views, bronchial asthma is a chronic inflammatory disease of the respiratory tract, which involves a number of cells and inflammatory mediators, which leads to characteristic pathophysiological changes, namely hypersensitivity and hyperreactivity of the bronchi and immunoreactivity disorders, manifested in particular cellular and humoral immunity [1].

Currently, the Global strategy for the treatment and prevention of AD aims to introduce modern asthma management technologies into practical health care: "Despite the efforts to improve care for AD patients made over the past decade, most patients have not received assistance from advances in this area, and many do not receive even basic treatment. The challenge over the next few years will be to work with primary care providers and health care providers in different countries to develop and evaluate AD treatment programs and adapt these programs to local requirements."

In the United States (2001), due to the large labor losses due to asthma, a program of BA treatment in the workplace was applied, as a result of which the costs of medical care, absenteeism and increased productivity were reduced. Another study conducted in the United States in 2001 showed that the introduction of asthma management programs leads to reduced costs, morbidity and mortality. In addition, it should be noted that in most of the studies, the effectiveness of the introduction of modern technologies for diagnosis and treatment of AD was evaluated by such indicators as morbidity, hospitalization, disability, mortality, the number of calls of SMP, temporary disability (VN) [4].

In practice, with an integrated approach to the problem of AD in a particular region, city, district, it is advisable to rationally combine technologies aimed at identifying and treating patients with AD (prevalence study, register creation, SPAM), in programs with monitoring the medical and economic efficiency of their implementation.

In recent decades, there has been an increase in the prevalence of allergies and asthma. According to epidemiological studies conducted in the UK, Sweden, France, Taiwan, Australia and Italy, there is an increase in the prevalence of BA among men younger than 25 years from 5 (1980 — 1982) to 9% (1988 - 1991) [4]. The increase in the prevalence of asthma can be associated with both the deterioration of the environmental situation and the fact that BA is a hereditary deterministic disease. There is strong evidence that BA is a hereditary disease [3,4]. A large number of studies have demonstrated a higher prevalence of BA and the BA-related phenotype in children whose parents suffer from BA compared to children whose parents do not have asthma symptoms [3]. Family studies have shown that atopy (determined by skin tests, the level of total and / or specific immunoglobulin E), airway hyperreactivity, are at least partially under genetic control [3,4].

Very often BA is combined with various diseases of the internal organs, which directly affect the severity of the underlying disease. In recent years, there has been a significant increase in the proportion of patients with comorbidities, in particular respiratory and cardiovascular diseases [3]. Many researchers believe that the presence of hypertension (AH) has a negative impact on intracellular hemodynamics and bronchial patency and thus on the course of AD. Hypertension is complicated by postcapillary pulmonary hypertension followed by interstitial edema, the formation of pneumosclerosis. Restriction of pulmonary tissue becomes more pronounced, vital capacity of the lungs decreases [3,4]. On the other hand, uncontrolled bronchial obstruction and choking attacks are powerful stress factors and negatively affect the course of hypertension [3]. Thus, there is a situation of mutual influence of pathological processes.

In 1990, in the United States, the cost of BA amounted to 6.4 billion dollars. US, including direct costs-3.6 billion dollars. US, indirect-2.6 billion dollars. (USA, 1995); financial losses due to temporary disability and absenteeism amounted to \$ 1 billion. USA [2]. There was an increase in mortality from asthma in the UK, France, Germany, USA [2-4]. In Russia, the total cost of BA in 1997 amounted to

2.6 billion dollars. US [2,4], and the mortality rate reached 6 cases per 100 thousand population [3].

In order to reduce morbidity and premature mortality, as well as to improve the quality of diagnosis, treatment and prevention of asthma, who experts offered practitioners guidance on BA – the Global asthma initiative (GINA, 1995, 2002, 2006). The manual covers all the problems associated with asthma, including the proposed modern methods of diagnosis, treatment and prevention of AD, such as: peak flowmetry, validated questionnaires, step pharmacotherapy using inhaled glucocorticosteroids (IGCs) and prolonged inhalation (32-agonists, program management of patients with AD (6 parts) [2-4].

In many countries of the world (UK, USA, Australia, Finland, etc.) national anti-asthma programs based on GINA recommendations have been developed and successfully implemented [3]. However, despite the existence of international, national and regional anti-asthmatic programs, asthma in most patients is partially controlled or uncontrolled. Epidemiological studies conducted in the United States and Western Europe showed that 30% of respondents from the total number of surveyed patients with ASTHMA night symptoms were observed once a week, 29% of respondents during the year missed work or school because of BA, 46% of respondents noted that the manifestations of the disease limit their physical activity. In General, in Western Europe, complete BA control according to the US criteria was achieved only in 5% of patients [1,2,4].

The increase in the prevalence of bronchial asthma is of concern to scientists, clinicians and health professionals [2-4], in many countries of the world there is a high mortality rate from BA, especially from its severe forms [2,4]. Exacerbation and presence of permanent symptoms of the disease, high incidence of disability are a heavy burden for the patient, his family and society as a whole [1-4]. Thus, bronchial asthma as a chronic disease is a serious social, economic, humanitarian and medical problem for society.

Introduction in the healing process of the provisions of international programs GINA and national programs led to the standardization of approaches to diagnosis and treatment for asthma, despite the obvious progress in the management of patients with asthma remain many questions. In order to achieve the best medical results, reduce social and economic damage in the conditions of existing resource constraints, it is necessary to constantly optimize treatment on the basis of modern knowledge, monitoring the process and results of the use of international and national documents, clinical guidelines for the treatment and prevention of AD.

A comprehensive holistic approach to treatment and rehabilitation should include assessing not only the medical outcomes, the socio-economic impact of the disease, but also rethinking the role of the doctor and patient in achieving the best outcomes. The solution of these problems is the essence of medical and social monitoring in pulmonology.

In the Saratov region since 1995 work on creation of the computer data Bank and information registers on allergo-pulmonology is conducted. However, to date, the reporting formed by doctors of different health facilities

did not provide completeness, reliability and compatibility of the information contained in the "register cards".

Approaches to monitoring and evaluation of BA, monitoring of pharmacotherapy and other treatment need to be adjusted.

The modern means of realization of target tasks on optimization of treatment and prevention of AD, minimization of defects in medical work is studying of structure, character of dynamics and tendencies of prevalence of asthma and its outcomes, studying of the factors influencing quality of medical care (connected with the medical personnel and the patient), calculation of need for medicines (basic and bronchodilating).

It should be noted that the implementation of international and Federal programs in health care is not always successful. To constantly monitor the process and the result of the use of guidelines and clinical recommendations for the treatment and prevention of AD at the regional level, it is necessary to create clinical and medical-sociological monitoring, organization of collection, accumulation, processing and presentation of information on all these issues, which is why this study is relevant.

**Objective:** to assess the quality of medical and organizational measures to implement modern approaches to primary, secondary and tertiary prevention of AD in primary health care.

**Research problem:** to study the prevalence of BA risk factors in representative groups of rural and urban population, to conduct a correlation analysis of their significance for the disease (to assess the risk of disease development under the influence of risk factors);

to evaluate the tactics of management of patients with Ad in primary care and urban clinics;

to assess the level of knowledge of primary health care specialists on early detection and tactics of management of patients with AD, recommended by clinical guidelines (recommendations) based on the principles of evidence-based medicine;

in order to assess the possibility of involving patients themselves in solving the problem of AD, to establish their awareness of the risk factors for AD, signs of disease and complications, as well as the importance of regularity of treatment and optimization of lifestyle;

to develop an algorithm of medical and organizational measures for primary, secondary and tertiary prevention of AD in primary health care.

to assess the preventive factors in the Republic that are required to prevent the development of AD or exacerbation of AD in those who already suffer from IT.

#### Literature

1. Aripova D.R. Clinical and laboratory substantiation of immunocorrection for bronchial asthma in children // Russian Med. J. – 2006. – Vol. 3. – P. 38-40.

2. Beltyukov E.K. Medical and economic efficiency of modern technologies of diagnosis and treatment of bronchial asthma at the regional and local levels // Allergy, Asthma, Clin. Immunol. – 2002. – Vol. 7. – P. 16-19.

3. Dugin D.N. Optimization of strategy and tactics of bronchial asthma therapy in community and hospital care // Allergology. – 2002. – Vol. 3. – P. 54-55.

4. Petukhova A.Yu. Optimization of diagnosis, treatment and prevention of bronchial asthma in persons with comorbidities of internal organs // Russian Allergol. J. – 2006. – Vol. 2. – P. 26-28.

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*Bronchial asthma is a serious chronic inflammatory disease of the respiratory tract and is a serious public health problem in all countries of the world. There is evidence of an increase in the prevalence of asthma and asthma mortality, and significant socio-economic damage caused by asthma.*

**Key words:** respiratory diseases, bronchial asthma, GINA, primary health.