

POLASTMA



**National Programme
of Early Diagnostics and Treatment of
Asthma**

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Contents:

1. ASTHMA AS A GLOBAL HEALTH, SOCIAL AND ECONOMIC ISSUE	3
2. WHY DO THE POLES NEED THE PROGRAMME?	5
3. THE PROGRAMME ASSUMPTIONS AND GOALS	6
4. PROGRAMME TARGET GROUPS	7
4.1. PRIMARY CARE PHYSICIANS (PCPs).....	7
4.2. PAEDIATRICIANS	8
4.3. NURSES.....	8
4.4. PHARMACISTS.....	8
4.5. OBSTETRICIANS	8
4.6. PATIENTS WITH ASTHMA AND THE WHOLE SOCIETY.....	8
4.7. THE ROLE OF SPECIALISTS	9
5. ACTIVITY AREAS	9
6. PROGRAMME IMPLEMENTATION TOOLS.....	11
7. PROGRAMME STRUCTURE	12
8. PROGRAMME GOALS – MODES OF ACCOMPLISHMENT	17
9. PROGRAMME IMPLEMENTATION ASSESSMENT	20
9.1. EVALUATION OF THE PROGRAMME DEVELOPMENT AND OF TRAINING EFFICACY	20
9.2. EVALUATION OF THE PROGRAMME RESULTS IN SUBSEQUENT YEARS.....	20
9.3. PHARMACOECONOMIC EVALUATION.....	21
10. PAEDIATRIC PROGRAMME	21
11. SEVERE, DIFFICULT-TO-TREAT ASTHMA	23
12. PROGRAMME ASSUMPTIONS FOR PHARMACISTS	24
13. PROGRAMME ASSUMPTIONS FOR NURSES	25
14. PROGRAMME PROMOTION	26
15. PROGRAMME COSTS	27
16. Summary	28
Annex No. 1	29
Literature	31

1. ASTHMA AS A GLOBAL HEALTH, SOCIAL AND ECONOMIC ISSUE

The number of patients suffering from asthma has doubled during the last ten years. The World Health Organisation (WHO)'s assumes that 300 million people all over the world are now affected by this disease, while the incidence of asthma will continue to rise, involving further 100 million patients till the year 2025¹. In Europe, this disease affects 30 million people, amounting even to 40% of subjects in certain populations².

Bronchial asthma has been regarded to be a civilisation disease, its associations with the civilisational development of societies raising no doubts. The highest incidence rates of asthma and allergic diseases are identified in highly developed countries, such as the United Kingdom, Sweden, Finland, Australia, New Zealand and Canada³. Atopy is a strong risk factor of asthma development as well as of other diseases. Genetic changes cannot however, be at the base of the observed epidemic growth of asthma incidence in the world. Quantitative and qualitative genome changes, modifying the phenotype of whole populations, are far from rapid, proceeding slowly from generation onto generation, while the incidence surge of asthma has only been evident during the last 30 years. Therefore, it is the quickly changing environmental conditions and the style of life which play a decisive role in this process. Among the factors which are responsible for the increased incidence of asthma, the ones, most frequently referred to, include urbanisation and industrialisation processes, elevated emissions of air contaminations, climatic changes, as well as changing life conditions and styles, including strict hygiene standards⁴.

The growth of asthma incidence has changed its meaning in the hierarchy of social health demands. At present, asthma is perceived in many countries as a serious health, social and economic issue, as it affects a considerable part of the population, impairing people's quality of life, while its chronic character and severity of symptoms depreciate family life and constrain the professional and social activity of affected patients. Thus, asthma is in certain countries the most frequent cause of disability to work and is the most frequent chronic disease in children and the most common reason for their absence at school. Asthma also fairly often requires therapy in hospital environment. The WHO estimates that every year 25 million disability adjusted life years (DALYs) are lost because of asthma. Every year, 255 thousand people die from asthma¹, i.e., one per all 250 deaths in the world results from asthma. In Europe, one man dies from asthma and 90% of these death cases could have been prevented, having improved medical care and reducing the exposure to risk factors².

The annual, asthma-related costs, born in the European Union, amount to approximately EURO 17.7 billion, while the loss of production capacity, resulting from poor asthma control, costs Europe EURO 9.8 billion per year². Finnish studies have demonstrated that the treatment of patients suffering from severe asthma is 13 times more expensive than in mild course of this disease. Therefore, the expenses, born with regards to the treatment of patients with severe asthma, i.e., 20% of the total number of patients suffering from this disease, consumed 60% of all the funds allocated for asthma therapy⁵. These figures result from high costs of hospitalisation. In the USA, they stand for as much as 51.2% of the direct costs of asthma therapy, 10.5% referring to first-aid, 18.4% reflecting the costs of outpatient therapy and 19.9% resulting from drug reimbursements⁶.

Beside the direct costs of medical treatment, asthma is a cause of high economic, i.e., non-medical costs, including those, associated with: the loss of production capacities, sick leaves, disability pensions, nursing benefits, etc.⁷. The indirect costs are much higher than direct ones, although they are rather rarely considered in the general social awareness.

With regards to the alarming epidemiological situation, the Global Initiative for Asthma (GINA) has been established under the auspices of WHO and NHLBI, gathering experts from all over the world. The main

task of this organisation was a development and then a continuous updating of the guidelines for asthma diagnostics and therapy. The first report from the group's work, "The World Strategy of Asthma Identification, Treatment and Prevention" was published in 1995 and has been annually updated since the year 2002⁸. Both the report and accompanying documents have been translated into many languages and widely distributed all over the world. GINA's recommendations have now become the basis for the standards of care of patients suffering from asthma in more than 100 countries in the whole World, including Poland. Adjusted to the specificity of a given country – including the structure of local healthcare systems, the principles of drug reimbursements, the degree of citizens' health, cultural conditions and patients' expectations, the recommendations, containing exhaustive information on the pathogenesis, diagnostics and therapeutics of asthma, are to become an important support for all the physicians, involved in the care of patients suffering from this disease.

However, it appears from the studies performed in France that, despite the existence of the guidelines, as many as 66-86% of patients with bronchial asthma are improperly treated: 62-84% of patients with severe asthma do not receive any anti-inflammatory agents⁹. These patients are particularly exposed to recurring, severe exacerbations of asthma, often demanding hospital care. High sick-leave absence rates at work and school are observed in this group of patients, while the risk of death is also the highest among these patients.

In the international AIRE study in 1999, only 5.1% of adult respondents achieved the targets of effective asthma treatment, as defined by GINA. It is then hardly to be wondered, as only 23% of the studied subjects used inhalatory glyocorticosteroids and 41% of the respondents used any anti-inflammatory drugs during the last 4 weeks, while rescue drugs were used by 2/3 of the studied population. Although GINA recommends the use of inhalatory glyocorticosteroids as the main asthma controlling drugs in all degrees of the therapy of chronic asthma forms, those drugs were used by only 25.4% of subjects with severe asthma, 22.7% of those with moderate and 27.6% of patients with the mild forms of this disease¹⁰. If asthma is not properly controlled, it considerably limits the patient's life activity, significantly impairs the quality of life and may also become a life threatening condition.

The defined and published standards of management, dedicated to persons suffering from asthma, will not be effective if they are not applied in everyday healthcare practice. Meanwhile, as it appears from performed studies, asthma is not properly diagnosed, physicians improperly evaluate the required degree of asthma control and recommend inappropriate therapy, the patients do not know how to use their inhalers and do not adhere to medical recommendations. All that leads to poor asthma control, disease progression to its severe forms, the necessity of frequent emergency interventions, frequent hospitalisations, life threatening attacks and even deaths from asthma.

The epidemiological situation in Europe has become the subject of analysis, performed by a group of experts from the Centre for European Policy Studies for the Asthma, Allergy & Inflammation Research Group, appointed within the 6th Framework Programme of the European Union. The effect of the Centre's works is the report: "Asthma in the EU: Towards better management and regulation of a public health issue"². This document identifies shortages and incompatibilities in the health policy of the EU, drawing the attention to the necessity of more concentrated action which would lead to improved situation of the patients with asthma in all the Member States, as well as provide equal chances for all the EU's citizens in the access to healthcare and in meeting high standards of effective asthma control.

In 2006, at the European Parliament, „The Summit for Change in Asthma Management” was held, a meeting of experts dealing with asthma, who – at the end of that meeting – issued the, so-called, Brussels Declaration¹¹. That meeting gathered politicians, clinicians, specialists in pharmaceutical regulatory solutions

and representatives of patient organisations. The conference was convened to discuss the epidemiological situation, prevention of asthma development and the attempt to equalise the chances of treatment availability for all the citizens of the European Union. The Declaration of that Summit includes a 10-item improvement plan of the situation in Europe, regarding the medical care of patients with asthma. The Declaration is dedicated to the politicians responsible for health policy, to persons responsible for healthcare organisation, to physicians and patients. It recommends the EU's Member States to develop integrated programmes of asthma management (see Annex No. 1).

A similar plan was earlier implemented in Finland¹², resulting in better accessibility to medical care, improved care of patients with asthma, earlier identifiability of the disease, a decrease of the number of patients suffering from the severe forms of the disease and, despite the increased number of patients, in reduction of the total costs of care by more effective control of the disease, allowing for much lower expenses for emergency conditions and patient disability consequences. Intensive works are underway to develop and implement similar plans in the other countries of the European Union.

2. WHY DO THE POLES NEED THE PROGRAMME?

The problem of rapid rise in the incidence of asthma and other allergic diseases was noted by the Polish Society of Allergology in the 90s of the 20th Century. At that time, the first national epidemiological study of the prevalence of atopic diseases in Poland (MMSEAD) was designed and undertaken¹³. In that study, using unique questionnaire forms, based on the international ISAAC questionnaires, a representative group of more than 16 thousand Poland's inhabitants was evaluated at 11 centres all over the country. At selected centres, questionnaire studies were completed by screening spirometry and point skin tests, performed by means of a panel of 10 inhalatory allergens. In all doubtful cases, the diagnosis was verified by additional studies at a specialist outpatient clinic. The prevalence of bronchial asthma in Poland was estimated at the level of 8.6% (95%CI 7.7-9.6) in children and of 5.4% *95%CI 5.0-5.8) in the group of adult patients¹⁴. On the example of Łódź, the highest incidence rates were found in the downtown area, being 3-times higher than those in agricultural areas¹⁵. In 2005, ECAP, another national epidemiological study was started, the initial results of which confirm a higher incidence of asthma in urban areas¹⁶.

Undiagnosed cases of asthma are a huge problem in Poland. An evaluation of data from the PMSEAD study in the Province of Łódź, has indicated a high percent of undiagnosed cases of bronchial asthma, amounting to 50% in adult subjects and even to 70% in children¹⁷. Those observations were also confirmed in the ECAP study. In that study, only 32% of the subjects suffering from asthma were enrolled with the already diagnosed disease¹⁵.

An insufficient control of asthma in patients is another problem in Poland. In the AIRCEE (Asthma Insights & Reality in Central and Eastern Europe) study, published in 2004 and evaluating the degree of disease control in patients suffering from asthma, more than 70% of respondents reported diurnal symptoms of bronchial asthma once a week at the minimum, while 20% experienced them every day. Almost 18% of the studied subjects were hospitalised during the last year of the study and almost half of them had to seek for immediate medical care. Almost 50% of the patients received diastolic agents and only 27% were treated with inhalatory glyocorticosteroids¹⁸.

In Poland, in 2006, there were approximately 58 thousand hospital admissions because of asthma, including 5 thousand cases with direct threat for patient's life because of the status asthmaticus. The average required period of hospitalisation in cases of asthma is 8 days, extending to 12 days for the status asth-

maticus¹⁹. Poland is accounted to the countries where the asthma-related mortality rate is 5-10 cases per 10 thousand of patients⁸, being one of the highest in Europe.

For these reasons, the Polish Society of Allergology has decided to undertake actions, leading to some improvement of the epidemiological situation in Poland. The National Programme of Early Diagnostics and Therapy of Bronchial Asthma is currently being developed by the initiative of the PSA's President. This initiative is a response to the demand of medical care improvement in patients with asthma. Its goals include early diagnosis of asthma and an improved control in the course of the disease, reduction in the number of subjects with asthma-associated disability for work, an increased use of anti-inflammatory agents vs. symptomatic drugs, reduced number of patients with severe, uncontrolled bronchial asthma and prevention of complications of the disease and of adverse effects of applied therapy, an increase of the social awareness, regarding the bulk of problems associated with asthma and reduction of the total costs of the care of patients suffering from asthma. The Programme design has been based on Finnish experience from the "Finnish Asthma Programme 1994-2004". Its implementation in Finland, has improved the medical care of patients with asthma, while reducing the costs of care providing. This effect has been obtained by educating the Health Care personnel and patients, by increasing the social awareness of the problem, health promotion and systemic changes in the organisation of the healthcare provided to asthmatic patients¹².

The National Programme of Early Diagnostics and Therapy of Bronchial Asthma is conformable with the Brussels Declaration and its 10-item plan, prepared by the participants of the Summit For Change In Asthma Management, held at the European Parliament. It recommends the Member States of the European Union to design and implement integrated programmes of asthma management¹¹. The National Programme of Early Diagnostics and Therapy of Bronchial Asthma responds these recommendations.

3. THE PROGRAMME ASSUMPTIONS AND GOALS

One of the most burning problems of the medical care of patients with bronchial asthma is leaving this disease undiagnosed. The latest epidemiological studies indicate that, despite the international publications (GINA) and national standards of management, only approximately 30-40% of patients are properly diagnosed. Underdiagnosing results in delayed implementation of effective treatment and, in consequence, in development of more severe forms of the disease, demanding a higher number of ambulance interventions and hospitalisations. The basic assumptions of the National Programme of Early Diagnostics and Therapy of Bronchial Asthma include an increased identifiability of bronchial asthma, both in children and in adults and, what is a direct consequence of early diagnosis, conformable with standards and early administration of appropriate treatment protocol, including anti-inflammatory drugs (Table 1).

Table 1. Basic assumptions of the Programme of Early Diagnostics and Therapy of Bronchial Asthma in Poland.

Goals of the National Programme of Early Diagnostics and Therapy of Asthma
<ol style="list-style-type: none"> 1. Early diagnosis of asthma 2. Better pharmacological control: <ol style="list-style-type: none"> a. reduced number of hospitalisation days because of asthma b. decreased mortality rates because of asthma c. reduced number of persons with asthma-related disability for work d. increased use of anti-inflammatory vs. symptomatic drugs 3. Reduced number of patients with severe, uncontrolled bronchial asthma 4. Prevention of disease complications and of therapy adverse effects 5. Higher social awareness, regarding the problems associated with asthma 6. Reduction of the total costs of care of the patients with asthma

Early diagnostics and treatment will prevent the development of irreversible functional disorders of the respiratory system (asthma is the strongest risk factor of developing chronic obstructive lung disease, following the exposure to tobacco smoke), will reduce the number of severe cases of the disease, including mortal ones, reduce the number of disability pensions in result of asthma and will reduce the costs of care, applied to patients with bronchial asthma. The goal of the Programme is not a design of any new standards of management but a general improvement of the medical care of asthmatic patients with a decrease of its costs by implementation of the actual recommendations in everyday practice, based on scientific evidences, international recommendations and the national groups of experts. This Program is a part of the Global Alliance against Chronic Respiratory Disorders (GARD), an international strategy, implemented under the protectorate of the World Health Organisation (WHO). The Programme has been dedicated for GP's and will be performed along the guidelines of PAL (Practical Approach to Lung Health) strategy.

Table 2. Chief action methods within the National Programme of Early Diagnostics and Therapy of Bronchial Asthma.

Chief action methods within the National Programme of Diagnostics and Therapy of Bronchial Asthma
<ul style="list-style-type: none"> • Promotion of diagnostic and therapeutic management, conformable with standards based on scientific evidences • Extension of educational networks based on local specialist centres • Training coverage of key target groups: PCPs, paediatricians, nurses, pharmacists, obstetricians • Educational coverage of patients and of the whole society • Unification of diagnostic methods, creation of local diagnostic reference centres, available for PCPs • Promotion of the therapy of disease exacerbations, based on individual management plans • Education in the proper use of inhalation drugs • Promotion of healthy life styles, including the fight with tobacco smoking addiction • Promotion of research on bronchial asthma

4. PROGRAMME TARGET GROUPS

The Programme implementation shall involve all the persons who participate in the care of and having contact with the asthmatic patient. In particular, the Programme is dedicated to primary care physicians and paediatricians. Nurses and pharmacists should also be involved in the active care and education, as they may increase the effectiveness of the therapy by education and control of patients' compliance with recommendations. In time, the Programme is to be extended onto other physicians-specialists who have contacts with asthmatic patients. It is also important to strengthen the role of these specialists as experts in the diagnostics and therapy of patients suffering from asthma.

4.1. PRIMARY CARE PHYSICIANS (PCPs).

Early suspicion of bronchial asthma and consideration whether further diagnostics is appropriate and justified are the dilemmas of a primary care physician and not of a specialist at clinical environment. For this reason, PCPs is the main target group for the Programme for which educational activities are dedicated. The assumption of the Programme is an increased identifiability of asthma and possibly the earliest administration of proper treatment. Properly trained primary care physicians (PCPs), familiar with the standards of therapeutic management, should have an opportunity to diagnose asthma at reference diagnostics centres. Diagnostic specialist centres ensure high and repeatable quality of tests and studies. The medical care of milder forms of bronchial asthma should be left for the management of PCPs. Any doubtful cases, severe

forms of bronchial asthma, hypersensitivity to drugs or therapeutic failures, should be referred by PCPs to specialist outpatient clinics. This will decrease the costs of care of asthmatic patients.

4.2. PAEDIATRICIANS

Diagnosis of bronchial asthma in children is a difficult task, especially in the youngest age groups, where viral infections with obturation are frequently observed. Therefore, the advisability of education in this groups of physicians is clear and unquestionable.

4.3. NURSES

The basis for effective care of patients, suffering from chronic diseases, is regular education and the control of adherence to physician's recommendations. The role and potentials of nurses are now rather underestimated in Poland. The tasks of properly trained nurses may include patient education, concerning the proper use of inhalation drugs, peak-flowmeter operations and training in recommended procedures in case of disease exacerbation, following an individual management protocols, earlier designed with the physician.

4.4 PHARMACISTS

A significant practical problem in the care of patients with bronchial asthma concerns the errors in the use of inhalation drugs, the effect being a more or less limited efficacy of applied therapy. The main educational task for the pharmacists will be a promotion of the proper use of drugs administered via inhalers. Additionally, they could possibly control the proportions of administered symptomatic and disease controlling drugs, promote simple tests, evaluating the actual degree of asthma control, basic measurements of the respiratory system efficiency (peak expiration flow – PEF), plans of management in cases of disease exacerbations and encouraging to visit a doctor, when necessary (including the cases of increased use of rescue drugs).

4.5 OBSTETRICIANS

The problem, often faced in our everyday practice, is the insufficient knowledge, regarding the safety of drug usage in pregnant women, also those with bronchial asthma. Sometimes, all inhalation drugs are withdrawn, leading to asthma exacerbations and significant complications. The goal of the Programme is to provide obstetricians with necessary knowledge on the safety of anti-asthmatic drugs in gestation.

4.6 PATIENTS WITH ASTHMA AND THE WHOLE SOCIETY

The basic information, concerning bronchial asthma, should be provided to affected patients, as well as distributed in the whole society. One of the goals of the Programme should be an effective elimination of the stigmatisation of patients with diagnosed asthma. An important message is such that bronchial asthma is, in fact, a chronic disease, but proper adherence to prescribed therapy usually ensures an effective control of asthmatic symptoms. Among patients with the diagnosed disease, very important is the education, concerning the necessity of the regular use of recommended drugs, the way of application of inhalation drugs and the propagation of recommended procedures in cases of exacerbation. It is advisable to provide information, concerning the safety of inhalatory glyocorticosteroids, as steroidophobia is a significant problem in everyday practice and may be responsible for worse patients' compliance with physician's recommendations. Some information about asthmatic symptoms, targeted to the groups of increased risk, especially to allergic patients, patients with allergic rhinitis, will result in better detectability of the disease.

4.7 THE ROLE OF SPECIALISTS

Local specialist centres will be the main link in the educational network, which will be the base for the Programme. Because of the scale of the Programme in Poland, the first training sessions, propagating the Programme ideas, will be held at the largest units in academic centres and big cities. They should provide the base for reference diagnostic centres (a minimum of basic diagnostics includes spirometry, provocation tests and skin tests) to be available for patients referred by PCPs. In subsequent stages, these centres will become the framework for local training networks, dedicated to PCPs. The division of tasks of PCPs and specialists in the care of patients with bronchial asthma will be developed in collaboration between specialists and PCPs in one of appointed Working Groups.

5. ACTIVITY AREAS

The Programme has been addressed to the society and to the medical environment; therefore, the activities have been configured on these planes. In order to ensure the Programme effective implementation, the involved organisational units will enter collaboration with medical environments, patient environments, media, governmental and non-governmental organisations. The Executive Committee will apply for patronage of the WHO and for donations from the European Union.

The main tasks of the Programme include a propagation of the basic knowledge on asthma in the society and intensive training sessions of physicians to improve their qualifications and, in consequence, the quality of care provided to patients with asthma. The Programme is dedicated directly to the society and to physicians, first of all to primary care physicians (PCPs). Education is to be at the base of all the undertaken actions. Training sessions and events will be held by specialists who provide care to patients suffering from asthma. The organisation of regional specialist centres for the care of patients with asthma is to facilitate a closer collaboration between PCPs and specialists in allergology and pulmonology. It will also provide assistance to other specialists, to whom asthmatic patients are referred with other health problems. A consolidation of the medical environment is one of the important tasks of this Programme. The Executive Committee and the Regional Programme Coordination Centres will seek for collaboration with the Supreme Chamber of Physicians and Dentists and with its local divisions.

Nurses play a very important, supportive role in the care of patients suffering of asthma, however, their position is very often underestimated. Well trained nurses may provide effective help to patients, as well as assist physicians in accomplishing therapeutic goals. A clear definition of their tasks, together with certain activities to support closer collaboration between the environment of nurses and physicians, is to contribute to improved medical care of patients. The Executive Committee and the Regional Programme Coordination Centres will seek for collaboration with the Supreme Chamber of Nurses and Midwives and with its local divisions.

In order to improve therapeutic effects, any patient's contact with professionals in the health market should be used for this purpose. Such a group, which may support the Programme realisation, is the group of pharmacists. It happens very often that patients enquire pharmacists about the efficacy of this or that drug, contraindications to this or that therapy and about the way of use of particular medicinal products. A trained pharmacist may support the efforts, regarding the training in the correct use of inhalers by patients and the education of patients how to evaluate the degree of asthma control and, perhaps, promote the use of anti-inflammatory drugs among patients, as well as alert a patient that his/her therapy may require verification. One of the Programme tasks is the encouragement of pharmacists to active participation in the educational activity targeted onto patients. The Executive Committee and the Regional Programme Coordination Centres

will seek for collaboration with the Supreme Pharmaceutical Chamber and with its local divisions, as well as with private pharmacy networks.

Beside the development of collaboration networks among particular professional groups of health care workers, the Programme aims at supporting the activity of patient environments, regarding the general education on health problems and propagation of healthy life styles. The Executive Committee and the Regional Programme Coordination Centres will seek for collaboration with patient organisations.

In order to implement the Programme, the Executive Committee will seek for collaboration with the Ministry of Health and will actively support systemic solutions, contributing to improved care of asthmatic patients.

An active collaboration will be undertaken with the National Healthcare Fund, regarding the implementation of changes in the actual healthcare system to improve the care of asthmatic patients and to more effectively utilise the funds allocated for this purpose.

The Executive Committee will seek for collaboration with organisations which may support the Programme efforts to bring back asthmatic patients to full professional activity.

Restoration of the abilities to work is a very important step towards improvement of the patients' family, social and economic situation. The right to work is one of the basic human rights. In order to prepare asthmatic patients to undertake work, the Executive Committee and the Regional Programme Coordination Centres will seek for collaboration with the Social Insurance Institution and the National Healthcare Fund in order to develop a rehabilitation programme for persons in production age, who cannot not work because of asthma.

The stimulation of patients towards professional activity may be supported by trainings, offering new qualifications to those patients, who because of asthma, cannot perform their learned/trained profession. For this reason, the Executive Committee and the Regional Programme Coordination Centres will seek for collaboration with local Employment Agencies.

Beside the area of purely medical activities, one of the tasks of the Programme members is an active support of new legislative and health promoting solutions; therefore, members of the Programme will collaborate with all legal or physical persons who have some influence on the shape of legislative acts.

The Programme members will seek for collaboration with local governments to obtain support in the organisation of training sessions/events, as scheduled within the Programme, to provide outpatient clinics with equipment necessary for asthma diagnostics and therapy control and in the organization of healthcare of asthmatic patients.

The Programme members will collaborate with representatives of Medical Chambers and Research Societies in order to obtain support for undertaken activities and assistance in the final development of Target Programmes and in their implementation.

For the sake of the Programme promotion in the society, its members will seek for contacts with media: press, radio and television. Regarding the medical environment, the information will be distributed and transferred during symposia, conferences, in professional press and specialist journals.

6. PROGRAMME IMPLEMENTATION TOOLS

The implementation of guidelines, concerning the diagnostics and therapy of asthma, requires application of appropriate means. The basis for the implementation shall be a series (2-3) of short, approximately 2-hour training sessions, delivered either on-site at the very location of the audience's work or at the reference centres for small groups of participants. Other forms of the knowledge promotion and distribution shall include symposia and conferences, devoted to the Programme, or dedicated sessions during other conferences of societies/associations of doctor, nurses, midwives and pharmacists.

Oral presentations to be better understood and remembered require printed and audio-visual aids. Necessary materials will be prepared for each target group, taking into account their specific character and range of activities.

Direct training:

1. Training sessions in small groups
2. Seminars
3. Sessions
4. Symposia
5. Conferences

Materials:

1. Printed:
 - a. Algorithms
 - b. Brochures
 - c. Books & manuals
 - d. Informative materials
2. Multimedia:
 - a. Computer presentations
 - b. DVD educational films
 - c. TV programmes in coded channels
 - d. Short, informative films/advertisements in public television (analogously to the spots about normal arterial hypertension and cardiovascular risks)
3. Internetowe:
 - a. The Programme website with contact details and educational materials with a limited access
 - b. Informative website about asthma with unconstrained public access
 - c. Fora moderated by a physician-specialist
 - d. On-line educational programmes

Target groups:

1. Primary care physicians
2. Specialist physicians
3. Nurses
4. Pharmacists
5. Asthmatic patients
6. The society
7. Media

7. PROGRAMME STRUCTURE

The Programme is being developed under the auspices of the Polish Society of Allergology (PSA) by the initiative of the PSA's President, who, together with other authors, has brought up the idea of the Programme. The Programme authors include: Prof. Piotr Kuna, M.D., Ph.D., Dr Izabela Kypryś-Lipińska, M.D. and Dr Maciej Kupczyk, M.D. The authors have got all the copyright laws regarding this Programme.

Before implementation, the Programme will be reviewed by independent Reviewers with appropriate expert knowledge.

PSA's President, following positive results of the Programme review, shall appoint The Programme Council, consisting of:

1. Executive Committee
2. Research Council
3. Council for Evaluation of the Programme Implementation

Beside the Programme Council, there will also be the Program Office.

A 7-member Executive Committee shall be appointed by President / the Board of PSA and include the following persons:

1. Actual President of the Polish Society of Allergology
2. President-Elect of the Polish Society of Allergology
3. President of the Polish Society of Pulmonary Diseases
4. President of the Polish Society of Family Medicine
5. National Consultant for Allergology
6. Specialist Paediatrician-Allergologist
7. Specialist/Internal Diseases - Allergologist

The Executive Committee shall appoint:

1. Chairman of the Executive Committee
2. Research Council
3. Working Teams of the Executive Committee
4. Regional Programme Coordinators

The Executive Committee decides about the structure of the Programme Office and employs its workers.

The goals of the Executive Committee include:

1. Development of the Programme Statutes
2. Obtaining the patronage of WHO (PAL and GARD)
3. Implementation of the Programme goals
4. Putting forward new initiatives, supporting the Programme implementation
5. Design & Development of Programme Tools
6. Broadly understood education

7. Evaluation of the Working Groups
8. Support and Evaluation of the activity of Regional Programme Centres
9. Appointing independent reviewers, evaluating the developed Programme tools
10. Design of Program activity networks
11. Programme implementation
12. Collaboration with the Ministry of Health, the National Healthcare Fund, the Social Insurance Institution, The Supreme Chamber of Physicians and Dentists, The Supreme Chamber of Nurses and Midwives, The Supreme Pharmaceutical Chamber, the organisations grouping asthmatic patients and their families, local governments to support the implementation of the Programme goals
13. Collaboration with Research Associations/Societies for the realisation of the Programme goals
14. Collaboration with international organisations and EU's Commissions for the realisation of the Programme goals and exchange of experiences
15. Acquisition of funds for the Programme implementation
16. Definition of the Programme financial policy
17. Monitoring and supervision of the Programme Office
18. Definition and management of medial policy (PR)

The Executive Committee shall be evaluated with regards to:

1. the Programme implementation effectiveness – by the Commission for Evaluation of the Programme Implementation;
2. the financial policy – by external audits, ordered by the PSA's Board, the Commission for Evaluation of the Programme Implementation or by itself.

The Research Council shall be appointed by the Executive Committee. It is a broad group of experts in various branches: medicine, economics, management, marketing, media, which shall support the activity of the Executive Committee by:

1. putting forward initiatives, supporting the accomplishment of the Programme goals
2. active work for the Programme implementation
3. reviewing the activity of the Working Groups

The Research Council shall include:

1. a representative of the Supreme Chamber of Physicians and Dentists
2. a representative of the Rectors' Board
3. a representative of the Supreme Chamber of Nurses and Midwives
4. a representative of the Supreme Pharmaceutical Chamber
5. specialists in allergology
6. specialists in pulmonary diseases
7. specialists in family medicine
8. specialists in other medical branches, whose patients are also asthmatic
9. nursing specialists
10. pharmacy specialists
11. health care organisation specialists
12. representatives of the editorial offices of leading medical media

The Working Groups of the Executive Committee shall be appointed by the Committee to carry out specific tasks during the Programme implementation. These groups shall consist of specialists in a given branch, consisting of 3-10 persons, depending on actual needs.

The Commission for Evaluation of the Programme Implementation shall be appointed by the Board of the Polish Society of Allergology as an organ independent of the Executive Committee. Its tasks shall include:

1. evaluation of the effectiveness of the Programme implementation
2. evaluation of the Programme outcomes
3. advisory role towards the Executive Committee and the Working Groups of the Executive Committee.

It shall consist of persons with broad experience in epidemiology, social and environmental medicine, medical statisticians, specialists involved in the care of asthmatic patients. The Commission shall group 4 to 7 persons.

The Programme Office shall be created by the Executive Committee and include:

1. the National Programme Coordinator
2. the Programme Secretariat: from 1 to 3 persons, depending on the actual needs
3. financial issues shall be settled by a contracted accounting agency

The tasks of the National Programme Coordinator shall include:

1. current supervision of the Programme goals implementation at the national and the local level
2. coordination of the activities between the Executive Committee and units of the Programme structure
3. identification of the needs and problems, regarding the Programme implementation in the regions
4. current contacts with organisations which are located within the area of the Programme activities
5. planning of meetings, training sessions/events, seminars and congresses
6. at the operational level: the control of expenses

Coordinators of the Regional Programme Centres shall be appointed by the Executive Committee. The appointment of Regional Coordinators is assumed in all the provinces.

The Regional Coordinators shall create 3-5-person Regional Programme Councils, including:

1. Regional Programme Coordinator
2. specialist allergologist / pulmonologist
3. specialist paediatrician
4. specialist / nursing
5. specialist / pharmacy

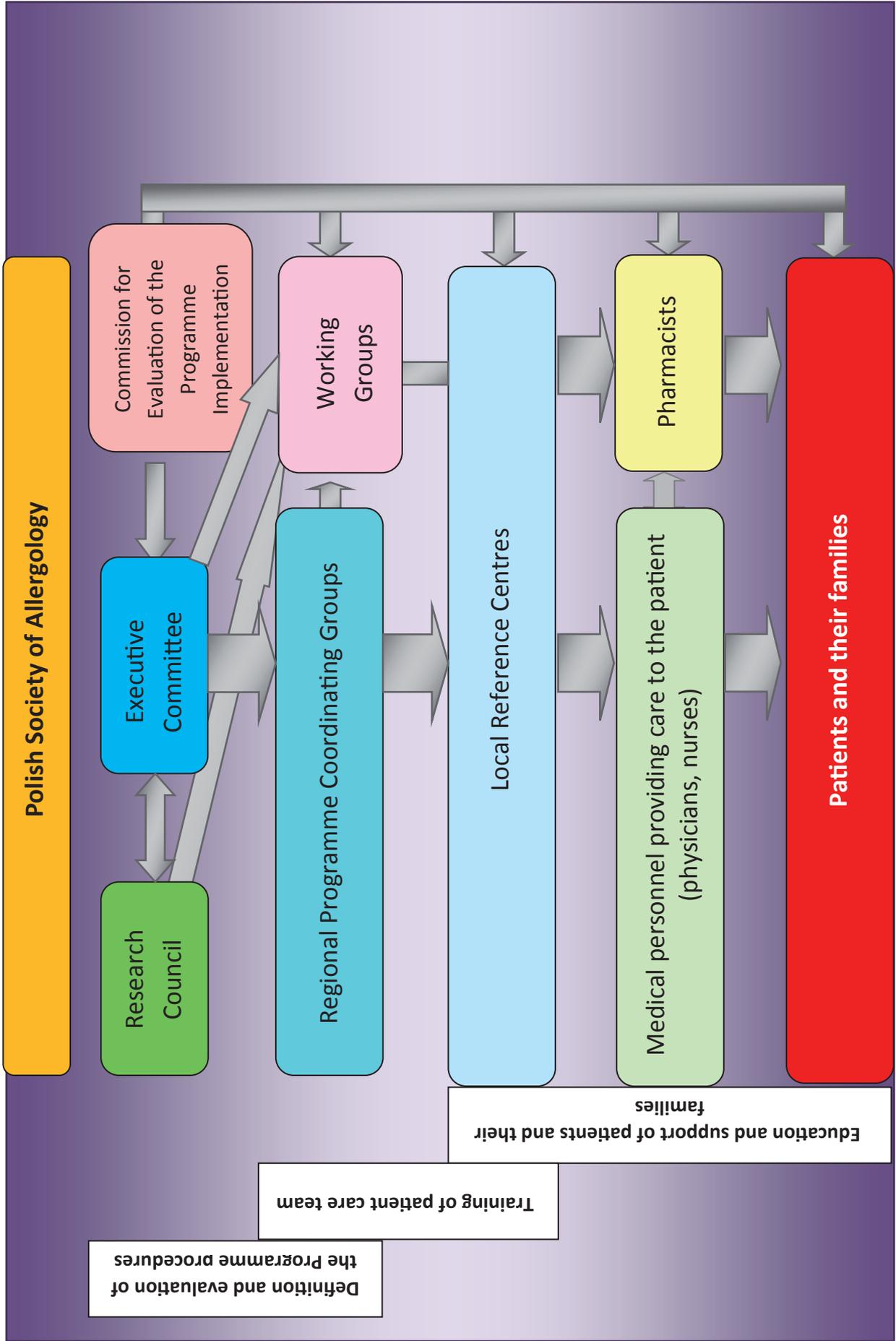
The tasks of the Regional Program Council shall include:

1. The Programme implementation in the region
2. identification of problems associated with the care of asthmatic patients in the region
3. building a network of reference centres
4. substantial supervision in the region
5. identification of needs regarding asthma diagnostics in the region, including the education of Programme trainers and – directly – of PCPs, nurses and pharmacists working in a given region
6. ordering and distribution of educational materials
7. moderating the collaboration at the level of PCP – physician specialist
8. collaboration with the Regional Chambers of Physicians and Dentists, the Regional Chambers of Nurses and Midwives, the Regional Pharmaceutical Chambers and the regional divisions of research societies
9. collaboration with local governments
10. collaboration with the regional divisions of the National Healthcare Fund
11. collaboration with the Social Insurance Institution and Employment Agencies
12. support of the organisations of patients and their families
13. submission of systemic initiatives, supporting the realisation of the Programme, to the Executive Committee
14. organisation of health promoting events, propagating the Program among the local society

The tasks of Local Reference Centres shall include:

1. training of Primary Family Care Physicians
2. support of diagnostics by performing high quality diagnostic tests for physicians
3. diagnosing of difficult cases
4. counselling provided to patients, regarding the course of treatment
5. treatment of patients with more severe conditions
6. management of patients demanding highly specialist procedures (specific immunotherapy, anti-IgE therapy)
7. educating patients

All the publications, concerning the Programme, shall be coordinated with the Programme Authors.



8. PROGRAMME GOALS – MODES OF ACCOMPLISHMENT

Detailed tasks, activities and tools shall be subordinated to the Programme goals – see Tables 3 to 8.

Table 3. The ways to accomplish the goal of early asthma diagnosis

I. Early asthma diagnosis
<p>Tasks:</p> <ol style="list-style-type: none"> 1. Improvement of early asthma diagnosis at the primary care level 2. Distribution of general information on asthma among physicians of other specialties 3. Distribution of general information on asthma in a broad society
<p>Activities:</p> <ol style="list-style-type: none"> 1. Education of primary care physicians 2. Design of the bronchial asthma diagnostic algorithm for PCPs 3. Extension of the range of tasks of PCPs, regarding diagnostics 4. Increasing the availability of spirometric and allergological tests for PCPs 5. Preparation of press release on asthma for social needs and active involvement in its propagation in mass media 6. Support of patient organisations in propagating the knowledge about asthma 7. National social actions, e.g., organisation of the World Asthma Day
<p>Tools:</p> <ol style="list-style-type: none"> 1. Training sessions for physicians concerning asthma diagnostics (including the interpretation of spirometric tests) 2. Symposia, conferences devoted to diagnostic problems in asthma 3. Brochures 4. Algorithms of asthma diagnostics developed for the needs of primary care 5. Training of nurses in spirometric tests

Table 4. The ways to accomplish the goal of improved asthma control

II. Better asthma control
<p>Detailed goals:</p> <ol style="list-style-type: none"> A. a 50% decrease of the number of hospitalisation days because of asthma B. a 50% decrease of the mortality rate from asthma C. a 50% decrease of the number of persons disabled for work in result of asthma D. an increase in the use of anti-inflammatory drugs vs. symptomatic drugs, following the indications of item 1.3
<p>Tasks:</p> <ol style="list-style-type: none"> 1. strengthening the knowledge about the inflammatory background of asthma and propagating the anti-inflammatory therapy among physicians 2. design of simple guidelines of chronic asthma therapy for PCPs 3. design of guidelines for PCPs, regarding the treatment of asthma exacerbations 4. popularisation of simple asthma control tools 5. increased availability of spirometric and allergological tests for PCPs 6. design of an interdisciplinary care system for asthmatic patient (including the care of pregnant woman with asthma) 7. definition of standards for the care of patients with difficult-to-treat and severe asthma 8. definition and extension of the role of nurses in the care of asthmatic patients 9. an increase of patient's role in the therapeutic process 10. education of patient at each stage of his/her contacts with medical personnel, including the contacts with pharmacists

Activities:

1. implementation of the guidelines concerning asthma diagnostics and treatment at the level of primary care
2. updating the guidelines, based on new reports and changes in the healthcare system in Poland
3. development of the lists of reference centres for primary care units in a given region
4. providing specialist medical care to patients with severe, difficult-to-treat asthma
5. moderating the collaboration between primary care units and specialist centres
6. organisation of training sessions, symposia and conferences devoted to the diagnostics and therapy of asthma and presenting the Programme results
7. collaboration with the National Healthcare Fund to improve the organisation of care for asthmatic patient
8. support of patient organisations in the education of patients

Tools:

1. a training session for physicians, regarding the therapy of asthma and treatment of its exacerbations
2. symposia and conferences devoted to asthma therapy problems
3. brochures
4. algorithms of asthma therapy, designed for the needs primary care
5. guides of asthma self-control for patients
6. training sessions for nurses in spirometric tests, the use of asthma control tools, improving the techniques of drug inhalation by patients, promotion of healthy life styles
7. training sessions for pharmacists in the identification of patients with poor asthma control, education of patients in proper techniques of drug inhalation

Table 5. The ways to accomplish the goal of reduced number of patients with severe, uncontrolled asthma

III. Reduction of the number of patients with severe, uncontrolled bronchial asthma

Tasks:

1. Strengthening the knowledge about the inflammatory background of asthma and propagating anti-inflammatory therapy among physicians
2. Early diagnostics and therapy of asthma
3. Definition of standards for the care of patients with severe asthma, difficult-to-treat
4. Development of rehabilitation programmes, regaining the ability to work
5. Design of an interdisciplinary care system for asthmatic patient
6. Definition and extension of the role of nurses in the care of asthmatic patients
7. Increasing patient's role in therapeutic process
8. Education of patient at each stage of his/her contacts with medical personnel

Activities:

1. Implementation of guidelines concerning asthma diagnostics and treatment at the level of primary care
2. Updating the guidelines, based on new reports and changes in the healthcare system in Poland
3. Identification and coverage of patients with severe, difficult-to-treat asthma with specialist care
4. Preparation of lists of reference centres for particular primary care units in a given region
5. Moderating the collaboration between primary care units and specialist centres
6. Definition of standards for the care of patients with severe asthma, difficult-to-treat
7. Collaboration with the National Healthcare Fund to improve the organisation of care of asthmatic patient
8. Collaboration with the Social Insurance Institution and Employment Agencies to activate professional motivation and ability to work of asthmatic patients
9. Support of patient organisations in the education of patients

Tools:

1. Training sessions for physicians concerning the therapy of asthma and the treatment of its exacerbations
2. Symposia, conferences for specialists, devoted to the problems of diagnostics and therapy of severe asthma
3. Guides of asthma self-control for patients
4. Training sessions for nurses in spirometric tests, the use of asthma control tools, improving the techniques of drug inhalation by patients, promotion of healthy life styles

Table 6. The ways to accomplish the goal of preventing disease complications and side effects of applied therapy

IV. Prevention of disease complications and of side effects of applied therapy
<p>Tasks:</p> <ol style="list-style-type: none"> 1. Strengthening the knowledge about the inflammatory background of asthma and propagating anti-inflammatory therapy among physicians 2. Early diagnostics and therapy of asthma 3. Development of guidelines for the treatment of exacerbated conditions 4. Popularisation of simple asthma control tools 5. Design of an interdisciplinary care system for asthmatic patient (including the care of pregnant woman with asthma) 6. Education of patient at each stage of his/her contacts with medical personnel
<p>Activities:</p> <ol style="list-style-type: none"> 1. Implementation of guidelines, concerning asthma diagnostics and treatment at the level of primary care 2. Updating the guidelines, based on new reports and changes in the healthcare system in Poland 3. Preparation of lists of reference centres for particular primary care units in a given region 4. Coverage of patients with severe, difficult-to-treat asthma with specialist care 5. Moderating the collaboration between primary care units and specialist centres 6. Collaboration with other specialist to improve the care of asthmatic patient 7. Preparation and support of legislative proposals, building the health promoting policy of the state, e.g., smoking prohibition in public areas 8. Collaboration with the National Healthcare Fund to improve the organisation of care of the patient with asthma
<p>Tools:</p> <ol style="list-style-type: none"> 1. Training sessions for physicians concerning the therapy of asthma and the treatment of its exacerbations 2. Symposia, conferences for specialists, devoted to the problems of diagnostics and therapy of asthma 3. Guides of asthma self-control for patients 4. Training sessions for nurses in spirometric tests, the use of asthma control tools, improving the techniques of drug inhalation by patients, promotion of healthy life styles 5. Promotion of health life style in media

Table 7. The ways to accomplish the goal of increased social awareness of the problems associated with asthma

V. An increase of social awareness of the problems associated with asthma
<p>Tasks:</p> <ol style="list-style-type: none"> 1. Education of patient at each stage of his/her contacts with medical personnel 2. Popularisation of the general knowledge on asthma in the society
<p>Activities:</p> <ol style="list-style-type: none"> 1. Preparation and support of legislative proposals, building the health promoting policy of the state, e.g., smoking prohibition in public areas, support of patient organisations in the education of patients 2. Collaboration with media in popularisation of the knowledge on asthma 3. Popularisation of the general knowledge on asthma in the society
<p>Tools:</p> <ol style="list-style-type: none"> 1. Brochures 2. Releases for press, radio and television 3. An informative website with details on asthma – publicly accessible 4. Fora, moderated by physician specialist 5. Educational on-line programmes 6. Social actions

Table 8. The ways to accomplish the goal of total cost reduction in the care of asthmatic patients

VI. Reduction of the total costs of care in asthmatic patients
<p>Tasks:</p> <ol style="list-style-type: none"> 1. early diagnosis of asthma 2. improved disease control 3. design of an interdisciplinary care system for asthmatic patient (including the care of pregnant woman with asthma) 4. definition of standards for the care of patients with severe asthma, difficult-to-treat 5. development of rehabilitation programmes, regaining the ability to work 6. definition and extension of the role of nurses in the care of asthmatic patients 7. increasing patient's role in therapeutic process 8. education of patient at each stage of his/her contacts with medical personnel
<p>Activities:</p> <ol style="list-style-type: none"> 1. implementation of guidelines, regarding the diagnostics and treatment at the level of primary care 2. coverage of patients with severe and difficult-to-treat asthma with specialist care 3. collaboration with other specialists, regarding improved care of the patient with asthma 4. definition and extension of the role of nurses in the care of asthmatic patient 5. increasing patient's role in therapeutic process 6. collaboration with the National Healthcare Fund to improve the organisation of care of the patient with asthma 7. collaboration with the Social Insurance Institution and Employment Agencies to activate professional motivation and ability to work of asthmatic patients 8. support of patient organisations in the education of patients
<p>Tools:</p> <ol style="list-style-type: none"> 1. training sessions, seminars, symposia, conferences 2. algorithm of diagnostics, chronic asthma therapy and treatment of its exacerbations 3. informative brochures, publications

9. PROGRAMME IMPLEMENTATION ASSESSMENT

A precisely scheduled and repeated evaluation of particular training sessions/events at the local level shall be the basis for the assessment of efficiency of all the actions undertaken within the Programme. In subsequent years, an evaluation of the final Programme stages will be absolutely crucial.

9.1. EVALUATION OF THE PROGRAMME DEVELOPMENT AND OF TRAINING EFFICACY

Every training session/event should be preceded by a short test, checking the knowledge of participants regarding the discussed issues. The same test shall be repeated after training. The test results should be sent to participants and filed at the Programme Office for further analysis. After each training, the participants should be given a possibility to evaluate the quality of training, lecturers and materials and to propose new subjects, important for their everyday practice.

9.2. EVALUATION OF THE PROGRAMME RESULTS IN SUBSEQUENT YEARS

It shall be necessary for correct evaluation of the Programme results to create a database with data describing selected parameters at their initial stage, followed by evaluation of these parameters in subsequent years of the Programme duration. It shall be necessary to start collaboration with the organisations which are involved in the acquisition of data necessary for the Programme evaluation and to obtain access to required data. Evaluation of the Programme results shall be performed by the independent Council of Programme Course Evaluation, grouping experts in epidemiological studies, social and environmental medicine, statisticians and specialists involved in the care of asthmatic patients.

Table 9. The main groups of data necessary for correct evaluation of the Programme implementation and a list of the organisations where these data are accumulated.

Data groups	Data sources
<ul style="list-style-type: none"> – the number of bronchial asthma diagnoses – the number of deaths in result of asthma 	National Institute of Health, Central Statistical Office
<ul style="list-style-type: none"> – the number of hospitalisations (asthma) – the number of days at hospital (asthma) 	National Healthcare Fund
<ul style="list-style-type: none"> – the number of disability pensions, approved in result of bronchial asthma 	National Healthcare Fund
<ul style="list-style-type: none"> – the sale of reimbursed drugs 	Ministry of Health
<ul style="list-style-type: none"> – evaluation of bronchial asthma identifiability (non-diagnosing) 	Epidemiological studies

9.3. PHARMACOECONOMIC EVALUATION

The evaluation of the Programme results includes also pharmacoeconomic parameters with direct and indirect costs of the care of patients with bronchial asthma (see Table 10).

In particular, the expenses will be accounted for which are associated with disability pensions, doctor visits, hospital care and drugs. The proportions of expenses in subsequent years will be assessed, with changes in the number of patients and the degree of the disease severity.

Table 10. Basic pharmacoeconomic data, necessary for the correct evaluation of the Programme implementation and a list of organisations involved in the data acquisition.

Pharmacological data	Source of data
<ul style="list-style-type: none"> – the costs of doctor visits - the costs of reimbursed drugs - the costs of ambulance interventions - the costs of hospitalisations - the costs of disability pensions and earlier disability 	National Healthcare Fund, Ministry of Health, Social Insurance Institution

10. PAEDIATRIC PROGRAMME

Asthma in children has a different course and prognoses than asthma in adult patients. Poor asthma control is not only a direct threat for health and life but it also negatively affects the child's development – physical, motor, psychic and intellectual. Asthma is the most frequent chronic disease in children and the most frequent cause of their absence at school. Children are much more at risk from the side effects of used drugs than adult subjects. Undiagnosed asthma in childhood or its unsatisfactory treatment leads, in consequence, to the development of severe and therapy resistant asthma in adult age.

It shall then be necessary to develop a separate, paediatric programme, within the National Programme, dedicated to this group of patients. The goals of such a programme have been presented in Table 11.

The methods of action within the Paediatric Programme of Early Diagnostics and Treatment of Bronchial Asthma, in the part regarding the severe forms of asthma, have been presented in Table 12 and will further

Table 11. Goals of the Paediatric Programme of Early Diagnostics and Therapy of Asthma

Goals of the Paediatric Programme of Early Diagnostics and Therapy of Bronchial Asthma

1. Early diagnostics of asthma
2. Early treatment application to avoid the disease development into chronic form
3. Improvement in the control of asthma
4. Asthma prevention
5. Prevention of the disease complications and of the used therapy side effects
6. Regaining the ability to learn/study
7. Good physical fitness

be developed in the Working Group of the Executive Committee, grouping the physicians-specialists, providing medical care to children with asthma, the management to be guided by GINA and PRACTALL projects.

In the care of children, suffering from asthma, different problems are faced vs. those, observed in the care of asthmatic adults. Children are often not self-reliant and their treatment requires collaboration with parents, therefore, the whole family is to be involved in therapeutic process.

Table 12. Methods of action within the Paediatric Programme of Diagnostics and Therapy of Bronchial Asthma

Methods of action within the Paediatric Programme of Early Diagnostics and Therapy of Bronchial Asthma

1. Establishing a network of paediatric centres, involved in the diagnostics and therapy in children
2. Support of the collaboration between specialist centres and primary care units
3. Increased access to diagnostic laboratories
4. Development of diagnostic and therapeutic algorithms for asthma in children
5. Preparation of a list of medical centres, involved in the diagnostics and therapy of small children
6. Establishing a network of reference centres, regarding the diagnostics and treatment of therapeutically difficult asthma
7. Better access to highly specialist therapies
8. Education of children and their parents
9. Rehabilitation outgoing sessions for children suffering from difficult-to-treat asthma
10. Collaboration with organisations of asthmatic patients and their families for the improvement of their health and social status
11. Increasing the awareness of the society and of the medical environment, regarding the complexity of problems in the families, where children are affected by severe, difficult to control asthma
12. Propagating the idea of early diagnostics and anti-inflammatory treatment and of specific immunotherapy in case of inhalatory allergy to prevent the development of severe asthma

The proper use of inhalation drugs by older children is a big problem, therefore, appropriate education action should be undertaken, targeted both to children and to those adults who control the therapy. Another issue is the adherence of teen-agers to physician's recommendations, which is the worst in this particular age-group.

Asthmatic children often avoid physical exercise in fear of the disease symptoms. They are released from physical training classes, what results in their weaker motor development. Therefore, actions should be undertaken, optimising the therapy, while also activating these children for physical exercise.

11. SEVERE, DIFFICULT-TO-TREAT ASTHMA

Severe, difficult-to-treat asthma is the form of the disease, which is most rare, however, burdened with the most serious complications and worst prognosis.

The patients, who suffer from severe/treatment resistant asthma:

- have low quality of life because of frequent symptoms and unexpected exacerbations of asthma,
- have limited life activity, they are often incapable to perform their profession
- are particularly exposed to serious adverse effects of drugs, especially of glycocorticosteroids,
- coexistent diseases, such as gastroesophageal reflux and nasal sinusitis, are very often diagnosed in these patients.

In the group of patients with the most severe forms of asthma, the following observations were made:

- the highest frequency of hospitalisations and visits at hospital emergency departments,
- the highest risk level of asthma attacks, leading to death.

The annual cost of therapy of a patient with severe asthma is several times higher than in case of a patient with mild course of asthma.

Therefore, these patients require specialist care and access to new therapeutic protocols. Such patients should obtain complex medical care at specialised centres.

Table 13. The goals of the Programme of Diagnostics and Therapy of Bronchial Asthma for patients with severe, uncontrolled and difficult-to-treat asthma.

Goals of the Programme of Diagnostics and Therapy of Bronchial Asthma for patients with severe, uncontrolled and difficult-to-treat asthma
<ol style="list-style-type: none"> 1. Improved asthma control 2. Assurance of complex care for patients with severe asthma 3. Prevention of the development of severe, chronic bronchial asthma

The methods of action within the National Programme of Early Diagnostics and Therapy of Bronchial Asthma, regarding the severe forms of asthma, have been presented in Table 14 and will further be developed in the Working Group of the Executive Committee, grouping physician specialists – involved in the therapy of patients with this form of asthma.

Complex care of patients suffering from severe asthma is at the base of proper approach to these patients who often demonstrate other, coexisting diseases and an effective treatment of these diseases is a condition for general health improvement in the patients. These patients are submitted to surgical interventions for various indications, to which they should be property prepared and the drugs, used by these patients for reasons other than asthma may also bias the course of asthma. Therefore, a collaboration among physicians of various branches is so important in the management of these patients.

Table 14. Methods of action within the Programme of Diagnostics and Therapy of Bronchial Asthma in cases of severe, uncontrolled and difficult-to-treat asthma.

Methods of action within the National Programme of Early Diagnostics and Therapy of Bronchial Asthma in cases of severe, uncontrolled and difficult-to-treat asthma
<ol style="list-style-type: none"> 1. Establishment of a network of reference centres, involved in the diagnostic and therapy of patients with difficult-to-treat asthma 2. Development of a diagnostic algorithm for patients with severe, therapy resistant asthma 3. Increased access to new methods of treatment 4. Development of clear qualification and monitoring criteria with regards to patients receiving highly specialist therapy 5. Development of rehabilitation programmes, supporting this group of patients in their return to work 6. Education of patients 7. Collaboration with patient organisations to improve their health and social situation 8. Making aware the society and the medical environment of the complexity of problems, regarding the patients with severe and difficult-to-control asthma 9. Propagating the idea of early diagnostics and of anti-inflammatory treatment and of specific immunotherapy in case of inhalatory allergy in order to prevent the development of severe asthma

In the care of these patients, one should not forget their psychological problems and troubles with work performance and a not infrequent sense of isolation from the society because of their asthma-related disability.

12 PROGRAMME ASSUMPTIONS FOR PHARMACISTS

Pharmacists constitute a professional group which has extensive contacts with patients suffering from chronic diseases, mainly because these patients use in their majority reimbursed drugs available only by prescription. A visit at a chemist’s shop / pharmacy gives a chance of quick and simplified verification of asthma control and patient’s education. The goals of the programme addressed to pharmacists have been presented in Table 15 and will further be developed with representatives of the Supreme Pharmaceutical Chamber and pharmaceutical specialists.

Table 15. Goals of the Programme of Diagnostics and Therapy of Bronchial Asthma addressed to pharmacists.

Goals of the National Programme of Early Diagnostics and Therapy of Bronchial Asthma addressed to pharmacists
<ol style="list-style-type: none"> 1. An increase of patient compliance with physician’s recommendations, regarding the regular use of anti-inflammatory drugs 2. Improving the technique of use of inhalation drugs

The methods of action within the National Programme of Early Diagnostics and Therapy of Bronchial Asthma addressed to pharmacists have been presented in Table 16 and will further be developed with representatives of the Supreme Pharmaceutical Chamber and pharmaceutical specialists.

Regarding the patients, who buy drugs for bronchial asthma, a pharmacist will propose performance of a short test evaluating the main parameters of effective disease control. When poor control of asthma is found, the pharmacist will suggest a visit to the consulting doctor. The pharmacists can evaluate the proportion of used rescue and disease controlling drugs. When the pharmacist finds out that the proportions are

Table 16. Methods of action within the Programme of Diagnostics and Therapy of Bronchial Asthma addressed to pharmacists.

Methods of action within the National Programme of Early Diagnostics and Therapy of Bronchial Asthma addressed to pharmacists
<ol style="list-style-type: none"> 1. Evaluation of control degree by means of simple tests 2. In case of finding inappropriate control of asthma, a recommendation to visit a doctor 3. Evaluation of the use of rescue drugs (beta₂ - mimetics) 4. Promotion of the use of asthmatic drugs of anti-inflammatory character 5. Instructions on the proper use of inhalation drugs and control of the proper technique of their inhalation

not conformable with recommendations (a patient overuses rescue drugs), he/she may recommend a visit to the doctor. When inhalation drugs are purchased, the pharmacist may check the patient's ability to use these drugs and, if necessary, to provide a short training. These chemist's shops/pharmacies which will delegate their representatives to training and will adhere to the above-mentioned recommendations, will have the right to use the title of "Asthmatic patient's friendly chemist's shop/pharmacy™".

13. PROGRAMME ASSUMPTIONS FOR NURSES

A properly trained nurse plays an important role in the therapy of patient and helps attain asthma control. Regarding physician's work, the nurse provides invaluable assistance in the care of patient, both the level of primary care outpatient clinic or at specialist unit.

Goals of the programme addressed to nurses have been specified in Table 17 and will further be developed in co-ordination with representatives of the Supreme Chamber of Nurses and Midwives and nursing specialists.

Table 17. Goals of the National Programme of Early Diagnostics and Therapy of Bronchial Asthma addressed to nurses.

Goals of the National Programme of Early Diagnostics and Therapy of Bronchial Asthma addressed to nurses
<ol style="list-style-type: none"> 1. Improvement of the disease control 2. Increased patient compliance of doctor recommendations, concerning the regular use of anti-inflammatory drugs 3. Improvement of the technique of use of inhalation drugs 4. Popularisation of the knowledge on asthma

Prior to visiting the doctor, the nurse may evaluate the degree of asthma control by means of simple tests. The nurse may also recommend an additional control visit when worse parameters are found or recommend only the continuation of therapy. It is important especially in practice of primary care physicians, where patients very often leave a request for drug continuation without having seen the doctor for several months. Another stage should comprise patient education, covering the issues concerning bronchial asthma, the adherence to individual treatment programme and the management of exacerbation cases, as determined earlier by the physician, and a continuous training, regarding the inhalation of drugs.

The methods of action within the National Programme of Early Diagnostics and Therapy of Bronchial Asthma, addressed to nurses, have been specified in Table 18 and will further be developed in co-ordination with representatives of the Supreme Chamber of Nurses and Midwives and nursing specialists.

Table 18. Methods of action within the Programme of Diagnostics and Therapy of Bronchial Asthma addressed to nurses.

Methods of action within the National Programme of Early Diagnostics and Therapy of Bronchial Asthma addressed to nurses

1. Evaluation of the control degree by means of simple tests
2. Evaluation of the respiratory system functionality by means of peak flowmeter
3. In case of worse control and/or PEF values, recommendation to apply the individual programme of management in case of exacerbation (Annex No. 2) or to arrange a visit to the doctor
4. Evaluation of the use of rescue drugs (beta 2 mimetics) and of the proportion of the use of rescue drugs to the use of asthma course controlling drugs
5. Evaluation of the technique of use of inhalation drugs
6. Education regarding bronchial asthma

14. PROGRAMME PROMOTION

This Programme has been designed to improve the identifiability of asthma in the early stage of the disease development and to improve the care of patients suffering from asthma.

In order to obtain these goals, the Programme will have to be accepted by the society, for which it has been created, and by the medical environment in which it plays the key role. Therefore, the Programme promoting activities will be addressed to broad social groups and to the medical environment.

Information will be sent to many people, regarding the needs of prophylactics, early diagnosis and modes of therapy, with a particular emphasis of the need of proper disease control.

In turn, doctors, nurses and pharmacists will receive information about the epidemiological situation in Poland, the advantages of the Programme implementation and specialist knowledge concerning the care of asthmatic patients, specifying their needs.

The information about the epidemiological situation and needs, regarding the care of asthmatic patients, will be provided to the persons who decide about health care policy at the national level.

For the sake of the Programme promotion, a collaboration with media will be undertaken. The applied tools will include brochures, releases in everyday press and in popular weeklies and monthlies, as well as in specialist journals, interviews and radio and TV programmes. Social actions will also be undertaken to encourage the society to take the opportunity of control examinations and promoting health life styles and health-improving activities.

Meetings of experts will also be held, regarding the care of patients suffering from asthma, and of persons professionally involved in the national healthcare policy.

15. PROGRAMME COSTS

The assumed expenses include:

1. maintenance and financial support of the Programme Office
 - a. salaries of the Office personnel:
 - i. administrative workers (1-3, depending on current needs)
 - ii. National Co-ordinator
 - b. premises hire costs
 - c. Office operation costs
 - d. the costs of organising the meetings of Committees and Working Groups
2. the organisation of training events at national level and support of the organisation of training at regional level
3. website design and maintenance
4. przygotowanie i dystrybucja materiałów edukacyjnych: druk publikacji i ulotek

Funds shall be acquired from public and non-public sources. Attempts will also be undertaken to obtain funding from the EU's sources.

The Executive Committee shall be responsible for funding acquisition and financial policy.

16. Summary

Knowledge about asthma	<ol style="list-style-type: none"> 1. Asthma as a civilisation disease – often diagnosed in developed countries, while its incidence rapidly grows in developing countries as well 2. Patient care costs have been growing 3. Evidence for inflammatory background of the disease 4. State-of-the-art therapy ensures proper control of the disease
National problems	<ol style="list-style-type: none"> 1. Asthma in Poland occurs in 10% of children and 6% of adults 2. It is often unidentifiable disease – even as many as 70% of affected children are not properly diagnosed and, in consequence, not properly treated 3. Symptomatic drugs are overused in the therapy of asthma, while anti-inflammatory agents of disease suppressing character are taken too rarely 4. Asthma is a frequent cause of absence at work and school and is at the basis of high disability rates 5. Untreated or poorly treated asthma leads to the development of chronic obstructive lung disease 6. Asthma is perceived as a disease which impairs normal life (an obstacle in normal life)
Strategy	<ol style="list-style-type: none"> 1. Making aware the persons, who are responsible for healthcare policy, that asthma in Poland is a serious health, social and economic problem 2. Design and implementation of the National Programme of Early Diagnostics and Therapy of Asthma, oriented towards: <ol style="list-style-type: none"> a. prevention of asthma, b. early diagnostics, c. therapy adjusted to actual patient needs, d. improved care of patient with severe, difficult-to-treat asthma e. regaining the ability of affected patients to school activities or work f. prevention of the disease complications and of therapy side effects g. popularisation of the knowledge on asthma in the society
Goals	<ol style="list-style-type: none"> 1. early diagnosis of asthma 2. more effective pharmacological control: <ol style="list-style-type: none"> a. to reduce the number of hospitalisation days because of asthma b. to reduce the mortality rates because of asthma c. to reduce the number of persons disabled for work by asthma d. to increase the use of anti-inflammatory drugs vs. symptomatic drugs 3. to reduce the number of patients with severe, uncontrolled bronchial asthma 4. prevention of disease complications and of therapy side effects 5. to increase social awareness regarding the problems associated with asthma 6. to reduce the total costs of care of asthmatic patients
Tasks	<ol style="list-style-type: none"> 1. to increase the awareness among physicians of the inflammatory background of asthma and propagating anti-inflammatory therapy 2. development of bronchial asthma diagnostic algorithm for primary care physicians 3. development of simple guidelines for the therapy of asthma and its exacerbations 4. extension of tasks of PCPs, regarding the diagnostics and therapy of asthma 5. propagation of simple asthma control tools 6. to increase the availability of spirometric and allergological tests for PCPs 7. to create a system of interdisciplinary care of asthmatic patient (including the care of a pregnant woman with asthma) 8. to define standards of care for patients with severe, difficult-to-treat asthma 9. to develop rehabilitation programmes, regaining the ability to work 10. to define and extend the role of nurses in the care of patients suffering from asthma 11. to increase patient's role in therapeutic process 12. patient's education at each stage of contact with medical personnel, including pharmacists
Activities	<ol style="list-style-type: none"> 1. implementation of the guidelines concerning the diagnostics and therapy of asthma at primary care level 2. updating the guidelines based on new reports and changes in the healthcare system in Poland 3. preparation of lists of the reference centres for primary care units in a given region 4. coverage with specialist care of patients with severe, difficult-to-treat asthma 5. moderating the collaboration between primary care units and specialist centres 6. collaboration with other specialists, regarding the improvement of the care of asthmatic patients 7. preparation and distribution of informative and educational materials 8. organisation of training events, symposia and conferences devoted to the diagnostics and therapy of asthma and presenting the Programme's results 9. preparation and support of legislative proposals, building the health-promoting policy of the state, e.g., smoking prohibition in public areas 10. collaboration with the National Healthcare Fund, regarding the improved care of patient suffering from asthma 11. collaboration with the Social Insurance Institution and Employment Agencies, regarding the professional activation of asthmatic patients 12. support of patient organisations in the education of patients 13. collaboration with media, regarding the popularisation of the knowledge on asthma

Annex No. 1

SUMMIT ON THE CHANGES IN THE APPROACH TO BRONCHIAL ASTHMA Brussels Declaration 10 tasks

An important element for public health

1. All persons and organisations should recognise asthma as a problem of great significance for public health and, in consequence, make the anti-asthmatic care one of the priorities of Healthcare policy.

Decision support

2. The healthcare policy defining institutions and professional organisations, including European patient associations, are obliged to respond to the growing understanding of asthma, including the recognition of the disease as a respiratory manifestation of systemic inflammatory processes.

3. Medical environments, guided by research societies, have to ensure their dynamic reaction to the recent scientific reports and proving a different course of asthma in adults, children and infants, as well as among various ethnic groups. In consequence, the management of patients may not be extrapolated from one patient group onto other groups. The undertaken studies and published recommendations should take this specificity in account.

4. Regulatory Recommendations of the European Medicines Agency (EMA) on asthma should immediately be revised and updated, what is a necessary step to ensure that the level of diagnostics and therapy of asthma reflects the latest, state-of-the-art solutions, regarding research results, clinical procedures and daily practice and that appropriate national organisations, including patent organisations, will actively be involved in the process of current updating the recommendations of asthma management, both in adults and in children, as well as to ensure implementation of these recommendations in daily practice.

Contribution to the development of new studies

5. The recommendations should still be based on the results of traditional, randomised clinical studies in case, when they introduce new elements; however, additionally, guidelines for other studies should be searched for, such as the studies on healthcare economics and studies of health related consequences, which are based on evaluation of broadly selected number of final scores and the higher number of patients. It is so because the studies better reflect the atmosphere of “real life”, regarding the care of patients and their families, also by studies devoted in particular to children / infants.

6. Sponsors of the studies at national and pan-European level should consider a possibility of new studies which could help answer the questions, regarding the effects of coexistent diseases on the course asthma, the ways of good practice promotion for optimal therapy, both from the point of view of healthcare professional and of patients, as well as of the progress in patient-oriented care, effective prophylactic strategies and evaluation of the prevalence and incidence rates.

The level of anti-asthmatic care

7. Creators of healthcare policy, politicians, clinicians and other gremia (including those, representing the perspectives and opinions of patients) are obliged to investigate the diversities of anti-asthmatic care

in Europe, demarcating all this what is associated with normal alterations resulting from differences in particular healthcare systems or from cultural variations from these differences which can be reduced by introducing the methods of management improving the organisation of health care and clinical practice and contributing to increased social awareness of the needs of patients with asthma and allergy.

Healthcare organisation

8. National programmes should induce such an organisation of healthcare which would enable asthmatic patients to be its active participants and to make conscious selections regarding various issues of this care. The European Union and its national departments have to improve their mechanisms of alertness to adverse episodes associated with pharmacology and the use of drugs in asthma to ensure that the drugs are properly used and that the potential questions of risk associated with the effects of these drugs are quickly and clearly identified, communicated and monitored.

Prophylactics

9. The European Union and national governments are obliged to collaborate with other organisations in order to reduce the effects on the course of asthma of such factors as tobacco smoking, air contamination, risks at schools, daily care centres, workstations and homes, as well as any other environmental factors which could induce or deteriorate asthmatic symptoms.

Involvement of other organisations to accomplish the goals of the Declaration

10. National programmes should define the goals for all the organisations involved in the healthcare process. The goals should include:

- maintenance of patient records,
- reduction in the number of hospitalisations and visits at Hospital Emergency Departments and/or at admission departments of hospitals,
- reduction of sick leave absence rates of employees and students suffering from asthma,
- support of the use of tools for individual evaluation of asthma control and identification of the causes of poor asthma control also at individual level (by each patient himself/herself).

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