

The „AMIANTUS” programme of prophylactic medical examinations of the former asbestos workers in:

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Subject to special protection are the former workers of all asbestos-processing plants in Poland listed in the *Act on the Ban of Use of Asbestos-Containing Products* of 19th June 1997. The Act specifies the following rights of the workers employed in these factories: free access to periodical medical examinations, free access to medications used to manage asbestos-induced diseases, once a year referral to a health-resort and exemption from treatment charges. The funds necessary to cover the costs incurred by these activities are allocated in the state budget. To facilitate implementation of the Asbestos Ban Act, the Ministry of Health has launched the AMIANTUS Programme of prophylactic examinations designated for former workers of asbestos processing plants. As envisaged in the Programme, each person who had been employed under conditions of occupational exposure in these plants was provided with a medical check-up book. The book contains information about the work post, the level and duration of exposure and the consecutive prophylactic examinations.

In view of the fact that the asbestos-processing plants were scattered all over Poland, the medical examinations for asbestos workers involve many different health care units. Thus, it was necessary to coordinate the examinations conducted by several dozen physicians from 13 occupational health care units.

The main tasks of the coordination of the Programme are as follows:

- to implement a uniform methodology of medical examinations;
- to ensure training and consultations;
- to monitor respiratory effects of exposure in workers occupationally exposed to asbestos dust;
- to keep a central register of workers exposed to asbestos;
- to manage database of results of prophylactic examinations.

The strategy of prophylactic examinations for asbestos workers has been developed by the Nofer Institute of Occupational Medicine in Łódź which also supervises the examinations of former workers of asbestos processing plants.

For the purposes of the AMIANTUS Programme, a unified procedure for large-scale prophylactic examinations has been adopted, and standardized forms to document medical records that would cover exposure assessment, as well as the principles of collecting occupational exposure data, have been prepared. All health centres performing the examinations follow the provisions of the 1997 Helsinki Criteria for diagnosis and attribution in asbestos-related diseases – for clinical, radiological, spirometric, histological diagnoses and exposure assessment .

The Programme tasks completed in 2000-2010 have made it possible to develop a database containing medical data on 6 853 asbestos workers. The data derive from 18 955 medical examinations performed in the course of the programme. Asbestosis was diagnosed in 1476 cases, i.e. 21.5% of the examined workers, lung cancer in 68 cases and mesothelioma in 40 cases.

Among the workers formerly exposed to asbestos dust who are subject to prophylactic examinations, a continuous year-to-year growth was noted in the proportion of pathological findings in radiological examinations (pleural alterations and parenchymal opacities). Also the number of patients with diagnosed asbestosis was found to increase from 7% in 2000 to 26% in 2010. This considerable increase is largely due to a better asbestos-related disease detectability achieved by virtue of the implemented Programme.

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IMPLEMENTATION OF THE AMIANTUS PROJECT INVOLVING PROPHYLACTIC MEDICAL EXAMINATIONS OF THE FORMER EMPLOYEES OF ASBESTOS PROCESSING PLANT. Med. Pr. 2011, 5 in press (in Polish)

ABSTRACT

Background: Based on 11 years of implementation of the Amiantus Project, this paper reports the results of prophylactic medical examinations of the former workers of asbestos processing plants. The Project involving employees of 28 former asbestos plants has been started by the Ministry of Health in 2000 under the Act banning all products containing asbestos. Material and methods: Preventive examinations have been continued in 13 centers of occupational medicine throughout the whole territory of Poland, coordinated by the Nofer Institute of Occupational Medicine in Lodz (NIOM). During the examination, a specific Examination Form is filled-in by a physician. The Form is then sent to NIOM for the purpose of monitoring health effects in the population covered by the Project. The results obtained by analyzing the radiological images of the lungs are recorded in the Examination Form according to the ILO 1880 classification of pneumoconiosis. Diagnosing of the asbestos-related pathologies is based on the Helsinki criteria. **Results:** During the 2000-2010, 6,853 people were involved in the Project, and they were subjected to a total of 18,955 preventive examinations. Asbestosis was diagnosed in 1475 individuals, representing 21% of all respondents, lung cancer in 68 people, and mesothelioma was diagnosed in 40 of the people. Pleural radiographic changes were observed in 3027 (44%) patients, pulmonary parenchymal opacities in 4086 (60%) patients. The analysis showed that the asbestos-related pathologies were most frequent in the group of former employees of asbestos-cement plants. This group was also characterized by an age-, tenure-, and latency-related increasing trend in the prevalence of silicosis and the frequency of radiographic lesions in the lungs of those subjects. **Conclusions:** The continuation of the examinations of former workers of asbestos processing industry has improved the detection of pathologies associated with exposure to asbestos and enabled to take appropriate preventive action. The growing percentage of poorer radiography results reflects progressive development of pathological processes in the respiratory system of people exposed occupationally to asbestos dust in the past.

Key words: Medical examinations, Asbestos-processing workers, Occupational exposure to asbestos dust, Asbestos-related diseases

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**PROPHYLACTIC EXAMINATIONS OF WORKERS FORMELY EMPLOYED
IN ASBESTOS PROCESSING PLANTS: OUTCOME OF THE AMIANTUS PROJECT
IN 2000-2004. Med. Pr. 2006;57(2):101-8 (in Polish)**

ABSTRACT

Background: Prophylactic examinations of workers formerly employed in asbestos processing plants were performed by virtue of the Act, dated 19 June 1997, putting a ban on the production of asbestos-containing products. To enforce the provisions of the Act, the Ministry of Health has initiated the Amiantus project implemented by 13 Occupational Medicine Centers throughout the country and coordinated by the Nofer Institute of Occupational Medicine (IMP) in Łódź. **Material and Methods:** All the Centers perform diagnostic procedures according to the same criteria (clinical, radiological, spirometric and histological), based on the 1997 Helsinki criteria, to diagnose asbestos-related diseases. A specific “Examination Form”, developed for the needs of the Amiantus project, is completed by an occupational physician during examinations and sent to the IMP, where health effects in the whole population covered by the project are monitored. Periodical medical examinations are performed at least every three years and they include: general examination, chest x-ray, resting spirometric examination and supplementary examinations (e.g., resting gasometric examination) or other diagnostic examinations if necessary (e.g., computed tomography). **Results:** Owing to the project implementation, it was possible to collect in the database information on 5466 persons who underwent 8763 prophylactic examinations in 2000-2004. Of the total population examined during a five-year period, occupational disease was certified in 728 (13%) persons. Asbestosis was diagnosed in 790 persons, lung cancer in 19 persons and pleural mesothelioma in 12 persons. Pleural changes in x-ray imaging were found in 1662 (30%) persons and opacities in pulmonary parenchyma in 2088 (38%) persons. Having compared these results with those from previous examinations, the total health condition deterioration was observed in 882 (16%) persons, including worsening of the lung x-ray imaging in 512 (9%) persons. An analysis showed the highest incidence of asbestos-related pathologies in workers of asbestos-cement plants. The collected data also confirmed an upward trend in the incidence of asbestosis and changes in the lung x-ray imaging related to age, duration of employment and latency. **Conclusion:** The implementation of the Amiantus project has contributed to an increased detection of pathologies related with exposure to asbestos fibers. A growing proportion of radiograms, which indicate worsening of health condition, provides evidence that morbid processes in the respiratory system are progressing in persons who in the past were occupationally exposed to asbestos dust.

Key words: prophylactic examinations, asbestos processing workers, occupational exposure to asbestos dust

PROPHYLACTIC EXAMINATIONS OF THE FORMER WORKERS OF THE ASBESTOS PROCESSING PLANTS: THE AMIANTUS PROJECT. Med. Pr. 2002, 53, 6, 451-456 (in Polish)

Abstract: Prophylactic examinations of the former workers of asbestos plants are performed by virtue of the Law of 19 June 1997 on a prohibition against use of asbestos-containing products. Periodical examinations allow detect pathological changes in the pre-symptomatic or early-symptomatic period, which permits to apply an appropriate treatment and down considerably the progress of morbid processes.

The main objectives of the surveillance and coordination are as follows:

- (1) to assure quality of prophylactic trough the methods of medical examinations and the detection of pathology resulting from the exposure to asbestos dust, based on international criteria for diagnosing asbestos-related diseases (the Helsinki criteria, 1997);
- (2) to monitor the respiratory health effects among persons occupationally exposed to asbestos dust; and
- (3) to keep the databases on persons examined and subjected to periodical prophylactic examinations throughout the country

The program of prophylactic examinations of persons occupationally exposed to asbestos dust includes mass screening. For the purpose of this program, a unified strategy of mass screening, including documentation (questionnaires on clinical and spirometric examinations) and instructions for persons responsible for performing these examinations has been worked out. Each center involved in the implementation of the program has been provided with binding criteria elaborated on the basis of the world standard (the Helsinki criteria, 1997) of clinical, radiological, spirometric and histological examinations aimed at detecting asbestos-related diseases: asbestos, fibrous mesothelioma and lung cancer.

The data obtained will serve as a basis for assessing the morbidity and incidence of asbestos-related diseases among persons occupationally exposed to asbestos dust processing plants.

Key words: asbestos workers, screening