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Diseases of the cardiovascular and respiratory systems as the basis for obtaining a disability certificate among patients from Lublin in 2006-2021

Abstract

Introduction. People with disabilities are individuals with full rights, who find themselves in a handicapped situation due to environmental, economic and social barriers that they cannot overcome in the same way as other people. About 15% of the global population live with disability. The number of patients suffering from cardiovascular diseases (CVD) and pulmonary diseases is increasing.

Aim. The aim of the study was to find out if CVD and lung diseases were among the leading causes of issuing disability certificates in Lublin in 2006-2021.

Material and methods. The data was obtained through a query at the Municipal Disability Adjudication Council in Lublin. We obtained anonymized data from years 2006-2021 referring to 16+ population.

Results. In the years 2006-2021 Municipal Disability Adjudication Council in Lublin issued 76,581 disability certificates for persons over 16 years of age. Out of that number 15,648 (20%) certificates were issued due to CVD and pulmonary diseases. These were on the second position among causes of disability after musculoskeletal diseases. The certificate recipients were mainly men > 60years of age with secondary or vocational education. In all age groups unemployed persons predominated.

Conclusion. The cardiovascular and pulmonary diseases were the second common reason of issuing disability certificates to adults in Lublin in the years 2006-2021.

Keywords: disability, cardiovascular diseases, lung diseases.

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INTRODUCTION

According to the European Disability Forum of the European Parliament, the people with disabilities are individuals with full rights, who find themselves in a handicapped situation due to environmental, economic and social barriers that they cannot overcome in the same way as other people [1,2]. The World Health Organization (WHO) adopted a definition of a state of disability including both physical and psychological aspects in the International Classification of Disability [3]. It includes states of damage, activity limitations and impediments or limitations to participation in social life, which are conditioned by individual and environmental factors [3]. About 15% of the global population live with disability [3]. In Lublin in the adult population the most common reasons for disability certificates are diseases of the musculoskeletal system [4].

The number of patients suffering from cardiovascular diseases (CVD) and respiratory systems is increasing [5].They are among the leading causes of morbidity. The CVDs are also among the most common causes of death. The majority of the diseases are chronic and impair patients' ability to play their family and social roles, as well as to be self-sufficient in everyday life. As chronic CVDs we consider: hypertension, atherosclerosis, heart failure, coronary artery disease, cardiac arrhythmia and venous thromboembolism, as well as conditions after stroke. The chronic respiratory tract diseases are: chronic obstructive pulmonary disease (COPD) and asthma. Lung cancer is the most common neoplasm affecting men and the second most common among women in Poland. Patients affected by these conditions have various levels of disability [6].

AIM

The aim of the study was to find out if CVD and pulmonary diseases were among the leading causes of issuing disability certificates in Lublin in 2006-2021. We also wanted to investigate the main characteristics of this group (age, sex, education, employment status).

MATERIAL AND METHODS

The data was obtained through a query at the Municipal Disability Adjudication Council in Lublin. We obtained anonymized data from years 2006-2021 referring to 16+ population.

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RESULTS

In the years 2006-2021 Municipal Disability Adjudication Council in Lublin issued 76,581 disability certificates for persons over 16 years of age. Out of this number, 15,648 (20%) certificates were issued due to CVD and pulmonary diseases. These were on the second position among causes of disability after musculoskeletal diseases. In the years 2006-2021, among recipients of disability certificates due to CVD and pulmonary diseases, 28% had light disability, 47% moderate and 22% severe (Figure 1).The predominating group of patients receiving disability certificate due to CVD or respiratory tract disease were > 60years of age (Figure 2).They were mainly men (Figure 3). Every year on average 444 women and 534 men with CVD or pulmonary diseases received disability certificate in Lublin. In the majority of cases, they had secondary or vocational education (Figure 4). In the whole analyzed period, unemployed persons predominated among the ones receiving the certificate (Figure 5).

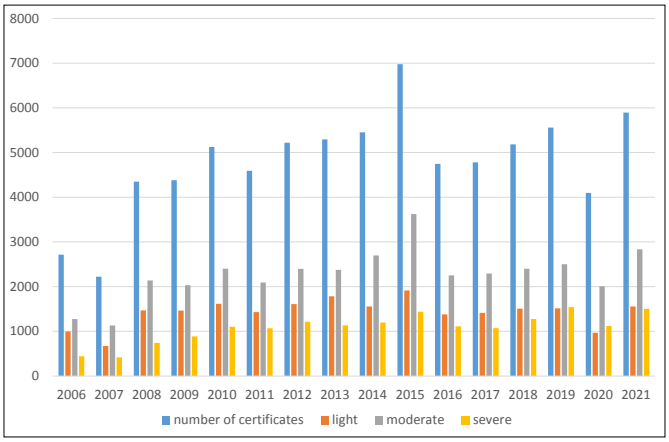

FIGURE 1. Classification of the certificates issued due to cardiovascular and pulmonary diseases according to disease severity.

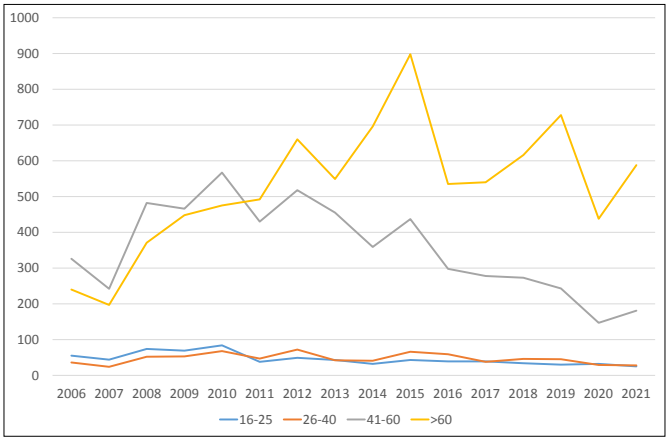

FIGURE 2. Classification of disability certificate recipients due to cardiovascular and pulmonary diseases according to their age.

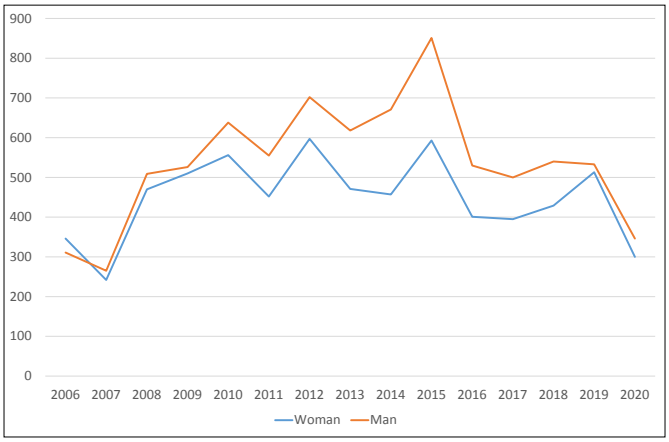

FIGURE 3. Classification of disability certificate recipients due to cardiovascular and pulmonary diseases according to their gender.

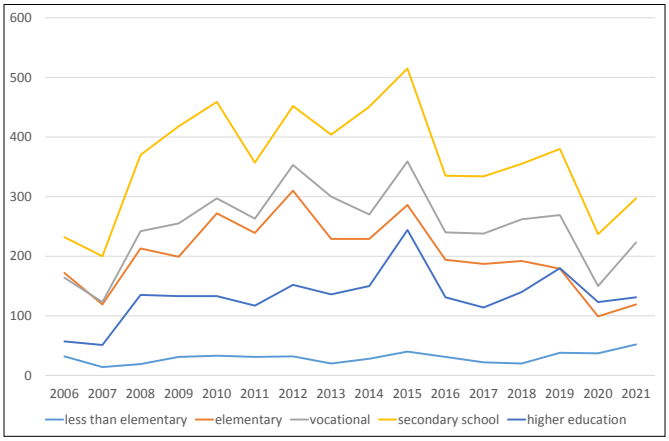

FIGURE 4. Classification of disability certificate recipients due to cardiovascular and pulmonary diseases according to their education.

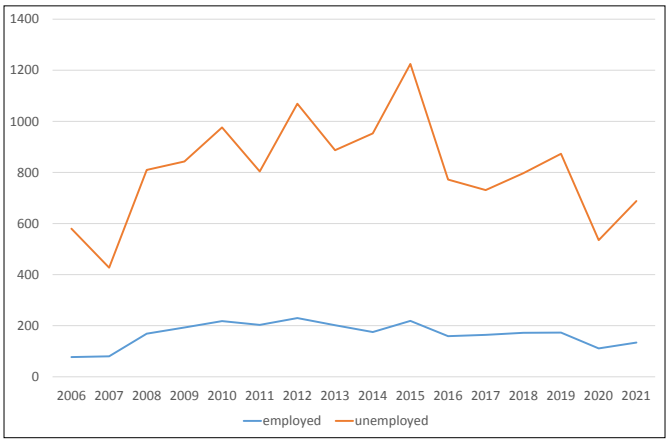

FIGURE 5. Classification of disability certificate recipients due to cardiovascular and pulmonary diseases according to their employment status.

DISCUSSION

More and more people are becoming ill with severe conditions of the cardiovascular and pulmonary systems. The range of diseases is very wide – they vary from acute diseases, such as myocardial infarction or stroke, to chronic diseases and cancers, as pulmonary cancers. In such cases, every aspect of patients' lives must change and be adjusted accordingly. This includes changes within the intake of medications, their cost and dealing with their side effects, changing the diet, its cost and its restrictive adherence and undergoing numerous surgical

procedures. Undertaking any kind of work or continuing education in the case of sick people is very often extremely hard or mostly not possible due to the lack of suitable conditions at the place of work or study.

According to the Polish law regulation, a person can apply for disability certificate due to CVD and respiratory diseases (07-S) if she/he has had a heart attack, has circulatory failure, suffers from COPD or asthma [7,8]. The 16+ person can receive one of the three disability levels: light, moderate or severe. The number of disabled people is increasing in Poland and worldwide [9]. As neoplasms often become chronic diseases, patents after chemotherapy, surgery and/or radiotherapy have long survivals with the chronic disease and disability. Lung cancer, a bronchogenic malignant tumor originating from the epithelium of the respiratory tract, constitutes the vast majority of lung cancers and is the most common malignant tumor in Poland, both in terms of the number of cases (approx. 21,000 per year) and the number of deaths. Less common lung cancers (approx. 1%) include lymphomas and non-epithelial cancers [6]. It is worth emphasizing that in 2020, compared to 2019, there was a decrease in the number of cancer cases by 12,908 in men and 12,129 in women (by 15% in total), with a relatively small difference in the number of deaths compared to the previous year (by 453 in women). The decrease in the number of cancer cases observed in 2020, visible in most locations, was probably caused by the postponement of diagnosis related to the COVID-19 pandemic and other restrictions resulting from pandemic restrictions (e.g. transforming hospitals and departments into COVID-19 units) [5]. At the same time, cancer is increasingly considered to be a chronic disease. According to the European Cancer Groundshot, whose message is the 70:35 vision for Europe, in 2035 the average 10-year survival of cancer patients should be 70% [10]. In 2020, contracting COVID-19 in oncology patients was associated with an increased risk of death. Then, among almost 41.5 thousand, as many as 17% of deaths due to COVID-2019 concerned oncology patients. Most deaths in this group occurred in patients with lung cancer (21%). Deaths from COVID-19 were more common in patients with recently diagnosed cancer [5].

During the COVID-19 pandemic, cardiac patients diagnosed with COVID-19 infection suffered either direct damage to the heart, resulting in myocarditis, or inflammation of the myocardium and pericardium. These patients may also have had activated or destabilized cardiovascular diseases that existed before the infection: ischemic heart disease, hypertension, heart failure, arrhythmia, or venous thromboembolism. The second group consisted of patients with chronic CVD who had not been diagnosed with SARS-CoV-2 infection. This group of people did not receive adequate health care. This could have been the fault of the potential patient himself, but also the fault of the health care system. The patient's fault is the disregard of emerging disease symptoms and the fear of SARS-CoV-2 infection in health care facilities, which altogether led to too late obtaining qualified health care. The fault of the health care system is the inability to obtain professional help due to closed medical offices, which has led to a significant extension of already long queues in outpatient care [11]. It is worth remembering that in some patients after COVID-19, respiratory insufficiency persisted and some require chronic oxygen therapy.

In 2020, a breakdown in the implementation of population screening programs was observed, which was typical of most European countries and the USA. According to recent analyses conducted as part of the Global Burden of Disease project in 2019, CVD were responsible for 23% of total healthy life years (DALYs) lost and 34% lost years of life due to premature death [12]. In the first year of the pandemic, the mortality rate due to CVD in Poland has increased compared to the expected by 8.8% and in the next year by 12.6% [11]. The number of hospitalizations due to heart attack, according to data from the Silesian Voivodeship Cardiovascular Base, was 25% smaller in 2020 than in 2019. This translates into a smaller number of patients included in the coordinated program care after a heart attack (decrease by 26%). Also the results of heart attack treatment in 2020 were worse than 2019 – in-hospital mortality in 2020 was higher compared to 2019 by 34% [11].

CONCLUSIONS

The cardiovascular and pulmonary diseases were on the second place among the leading causes of issuing disability certificates in Lublin in 2006-2021.

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