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OUT-PATIENT VISIT TO THE PULMONOLOGIST: PECULIARITIES OF MEDICAL CARE PROVISION AMID THE COVID-19 PANDEMIC

Chaplynska NV, Rudnyk VT, Pozur NZ

Department of Therapy and Family Medicine of Postgraduate Education Institute,
Ivano-Frankivsk National Medical University
Ivano-Frankivsk, Ukraine

Abstract. The coronavirus pandemic has significantly affected the health care system and continues to make adjustments to the work of physicians in various specialties.

The **aim** of the study was to analyze the work of a pulmonologist of the polyclinic amid the pandemic COVID-19.

Material and methods of the study. An assessment of appeals to the pulmonologist consultation in the medical center “Frankomed” in Ivano-Frankivsk from July 2020 to February 2021 has been performed.

Research results. There were 143 patients, who made 185 visits and applied for an appointment with a pulmonologist within 8 months. Among those studied there were 72 women and 71 men. The age of patients was from 18 to 87 years, the average age of women was 49.31 ± 2.14 years, the average age of men was 48.86 ± 2.73 years.

The reasons for seeking medical help from a pulmonologist were the following ones: acute bronchitis – 5 (2.73%), exacerbation of chronic bronchitis – 54 (29.51%), COPD – 12 (6.56%), bronchial asthma – 8 (4.37 %), pneumonia – 42 (22.95%), coronavirus disease – 30 (16.39%), idiopathic pulmonary fibrosis – 2 (1.09%), tuberculosis – 6 (3.28%), neoplasms – 3 (1.63%), metastatic lung damage – 1 (0.55%), pneumofibrosis – 18 (9.84%) cases.

The vast majority of appeals is accounted for the chronic non-specific pulmonary pathology, namely chronic bronchitis, COPD, etc. All pulmonary beds of the region during the COVID-19 pandemic were repurposed to Covid ones, specialized diagnostic and therapeutic care could not be provided to such patients.

In the second place there are coronavirus disease, pneumonia and post-pneumonic pneumofibrosis. The reasons for such patients' appeals were their desire to receive a consultation of a narrow specialist, excessive workload of family doctors, and others.

Isolated cases of tuberculosis and neoplasms of unknown etiology were reported. The latter patients were immediately advised to consult TB and thoracic specialists.

Conclusions. During the coronavirus infection pandemic, temporary restrictions led to later visits to a pulmonologist in case of exacerbations, which could provoke the development of life-threatening conditions and required hospitalization.

Patients who applied to the medical center, had the opportunity to get the professional opinion and treatment.

Important work was done by a pulmonologist to identify important medical-social problems.

Key-words: *outpatient, pulmonologist, COVID-19*

Introduction. In late 2019 the International Committee on Taxonomy of Viruses (ICTV) announced the emergence of a new strain of human coronavirus (SARS-CoV-2), which caused an infectious disease that the World Health Organization (WHO) called “coronavirus disease 2019”(COVID-19) [7]. The first outbreak of coronavirus disease 2019 (COVID-19) was recorded in mid-December 2019 in China. Today, the coronavirus, which causes severe acute respiratory syndrome (SARS-CoV-2), has infected people around the world and continues to spread. Even the most economically and medically developed countries have great difficulty in controlling the spread and treatment of this pathology. Global research on COVID-19 aims to study the origin of the pathogen, routes of transmission, rapid methods of diagnosis and treatment

of the disease [3].

The coronavirus pandemic has challenged all national health systems, significantly affected their activity and continues to make adjustments to the work of physicians in various specialties. In this situation, all efforts of physicians should be aimed at limiting the spread of infection and the provision of qualitative medical services [2, 4].

Unfortunately, all countries are experiencing a decrease in the number of diagnostic procedures, planned operations and other types of preventive and curative care. For example, according to a report by the Epic Health Research Network, the incidence of breast, cervical and colon cancer screenings have decreased at 86-94% compared to previous years. If this trend continues, delayed screening and diagnosis may lead

to later diagnosis of these and other cancers and, as a consequence, an increase in the incidence of later, advanced forms of disease and mortality [1, 8].

The situation with patients with chronic non-infectious diseases, including pulmonology, is similar. Patients with chronic respiratory diseases have a high risk of adverse coronavirus disease and need proper attention [2, 6].

The **aim** of the study was to analyze the work of a pulmonologist of the polyclinic in a pandemic COVID-19.

Materials and methods of research

An assessment of appeals to the pulmonologist consultation in the medical center “Frankomed” in Ivano-Frankivsk from July 2020 to February 2021 has been performed.

Results and discussion

There were 143 patients, who made 185 visits, applied for an appointment with a pulmonologist within 8 months (see Fig. 1).

Among those studied there were 72 women and 71 men. The age of patients was from 18 to 87 years, the average age of women was 49.31 ± 2.14 years, the average age of men was 48.86 ± 2.73 years.

Patients who applied to the medical center were professionally consulted by pulmonologists, had a full range of laboratory, radiological and ultrasound examinations. Some patients had the opportunity to be treated as in-patients.

The reasons for seeking medical help from a

pulmonologist were the following ones: acute bronchitis – 5 (2.73%), exacerbation of chronic bronchitis – 54 (29.51%), COPD – 12 (6.56%), bronchial asthma – 8 (4.37) %, pneumonia – 42 (22.95%), coronavirus disease – 30 (16.39%), idiopathic pulmonary fibrosis – 2 (1.09%), tuberculosis – 6 (3.28%), neoplasms – 3 (1.63%), metastatic lung damage – 1 (0.55%), pneumofibrosis – 18 (9.84%) cases.

Analyzing these data, it is seen that the vast majority of appeals (Fig. 2) accounts for chronic non-specific pulmonary pathology, namely chronic bronchitis, COPD, bronchial asthma, idiopathic pulmonary fibrosis.

Due to the fact that all pulmonary beds of the region during the COVID-19 pandemic were repurposed to Covid ones, specialized diagnostic and therapeutic medical care could not be provided to such patients. Family doctors, who carry out remote monitoring of patients using telephone or video communication, and consultations by e-mail, play an important role in this situation. Patients should be advised to follow all anti-epidemic measures, as well as mandatory adherence to basic treatment regimens with regular use of medications recommended by doctors. This approach will minimize the risk of exacerbations of chronic pulmonary pathology and reduce the necessity of hospitalization.

In the second place in the structure of pulmonary pathology, which was the reason to appeal to the out-patient medical help, there were coronavirus disease, pneumonia and post-pneumonic pneumofibrosis. The reasons for such patients' appeals were their desire to

Fig. 1. Number and frequency of patients' visits to the pulmonologist of the polyclinic

Fig. 2. The structure of pulmonary pathology, which was the reason for seeking an out-patient medical care

receive a consultation of a narrow specialist, excessive workload of family doctors, lack of declarations signed so far with the family doctor.

Most patients with coronavirus disease and viral-bacterial pneumonia had a mild course of the disease, received treatment as out-patients. In-patient treatment was recommended to 8 (11.11%) patients during the first visit, to 3 (4.17%) patients – during the second visit.

Isolated cases of tuberculosis and neoplasms of unknown etiology have been reported. The latter patients were immediately advised to consult TB doctors and thoracic surgeons. In the case of secondary malignant lung damage, there were given some pieces of advice concerning symptomatic treatment.

Conclusions

During the coronavirus infection pandemic, temporary restrictions related to receiving scheduled medical care, have led to later visits to a pulmonologist in case of exacerbations, decompensation of chronic pulmonary pathology, which, in turn, could provoke the development of life-threatening conditions and required hospitalization.

Patients who applied to the medical center had the opportunity to get the professional opinion and treatment concerning chronic lung diseases, pneumonia, coronavirus disease, its complications, as well as recommendations for rehabilitation after discharge from hospitals.

Important work has been done by a pulmonologist to identify such important medical-social problems as

tuberculosis and oncopathology.

Prospects for further research

There is limited data concerning out-patient management strategies in the COVID-19 pandemic [5]. Therefore, it is necessary to perform research in this direction, analyze new approaches, clinical experience, recommendations of foreign experts to develop our own guidelines for out-patient-polyclinic care for patients in quarantine, which would be adapted to regional conditions and resources of the health care system.

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