

## ANNOTATION

dissertation for the degree of Doctor of Philosophy (PhD)  
in the specialty 6D110200 - "Public health"

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### **"Epidemiology of inflammatory bowel diseases in the Republic of Kazakhstan"**

#### **Relevance of the research topic.**

Inflammatory bowel diseases, which include ulcerative colitis and Crohn's disease, have been and remain one of the most serious problems in modern gastroenterology (Seyedian, Seyed Saeid et al., 2019). Inflammatory bowel diseases mainly affect young people during the period of their social and professional activity. Due to the chronic course, as well as the serious severity of this pathology, there is an obvious need to clarify the causes and outcomes of morbidity, since this has important consequences for patients, moreover, it is important for issues such as health planning and management (Bewtra et al., 2013; Lamb, Christopher Andrew et al., 2019). The urgency of this problem is also determined by the fact that in the past three decades, there has been a high increase in the incidence of ulcerative colitis and Crohn's disease in the countries of Eastern Europe and Asia, where there was previously a lower incidence rate (GBD 2017 Inflammatory Bowel Disease Collaborators, 2017).

As part of the implementation of the goal of the Strategy 2050 and the Plan of the Nation "100 Concrete Steps", the Address of the Elbasy to the people of Kazakhstan "The third modernization of Kazakhstan: global competitiveness", in accordance with the State Program for the Development of Healthcare of the Republic of Kazakhstan "Densaulyk" for 2016-2019. and the State Program for the Development of Healthcare of the Republic of Kazakhstan for 2020-2025. in Kazakhstan, the gradual development of the health care system does not stop, aimed at improving the quality of medical services, as well as their availability for all segments of the population. General coverage of the population with health services implies a broad understanding of the range of services needed to maintain an appropriate level of well-being and health of the population, including with regard to digestive diseases, which are inflammatory bowel diseases.

In Kazakhstan, unlike other regions of the world, systematic studies of the epidemiological aspects of IBD have not been carried out, which did not allow tracing the dynamics of incidence and prevalence. Also, there were no studies on the organization and management of medical care for such patients, which leads to an obvious demand for this problem.

#### **Purpose of the study.**

To study the state and determine the features of the epidemiological situation of inflammatory bowel diseases among the adult population of the Republic of

Kazakhstan, to develop recommendations aimed at optimizing the organization and increasing the efficiency of medical care for patients, disease prevention.

**Objectives of the study:**

1. To analyze the incidence of inflammatory bowel diseases in the adult population of Kazakhstan in 2015 to 2019.
2. Determine the most significant factors affecting the development and course of IBD among the population of the Republic of Kazakhstan.
3. To study the opinion of gastroenterologists and therapists on the organization of medical care for patients with IBD.
4. To develop recommendations aimed at improving the efficiency of medical care for people with IBD, prevention and detection of these diseases.

**The scientific novelty:**

1. For the first time, a generalized study on the epidemiology of IBD in Kazakhstan was carried out, including the definition and interpretation of indicators characterizing regional and other features of the incidence.
2. The main and significant differences in the clinical manifestations of the course and complications of ulcerative colitis and Crohn's disease in the Kazakhstani population of patients with IBD have been established and shown.
3. Developed and proposed recommendations aimed at early detection of inflammatory bowel diseases, their prevention and optimization of the organization of medical care for patients.
4. The risk factors associated with inflammatory bowel diseases among the population of Kazakhstan have been determined.

**The theoretical significance of the study.**

The theoretical significance of the study lies in a systematic approach to addressing the problem of the epidemiology of IBD in Kazakhstan based on evidence-based research methods, the development and use of methods for actively detecting the prevalence of the disease, the development of tools for studying risk factors for the disease and assessing the opinion of specialists who provide care to patients with IBD.

**The practical significance of the study:**

1. The data obtained in the course of the work on regional, sex and age characteristics of the prevalence of the disease can be used as a scientific basis for making managerial decisions to optimize the organization of care for patients with IBD.
2. The results of the study of the organization of medical care for patients with IBD are recommended for use by local government health authorities and other specialized health organizations responsible for methodological guidance and analysis of the incidence of IBD to improve policy and management in the organization of medical care for patients with IBD.
3. The results of the work were introduced into the program of the course on gastroenterology taught at Al-Farabi KazNU, on the course of epidemiology of the Department of Epidemiology, Biostatistics and Evidence-Based Medicine of Al-Farabi KazNU, as well as in the development of the Register of patients with IBD in Kazakhstan (Appendix A) .

### **Provisions for Defense:**

1. Kazakhstan, with significant differences in the incidence and prevalence of IBD by year and region, belongs to countries with a relatively low incidence and prevalence of IBD with an upward trend, while the reported incidence and prevalence of IBD are lower than the actual levels established by active detection of such diseases.

2. Irregular food intake, consumption of fish and seafood, consumption of frozen convenience foods, diets based on meat dishes, consumption of NSAIDs other than aspirin and smoking were behavioral factors associated with an increased risk of IBD in the Kazakhstan population. While the Kazakh nationality, the transferred childhood viral infections were factors in reducing the risk of IBD.

3. Among the Kazakhstani population of IBD patients, patients with Crohn's disease more often than patients with ulcerative colitis have hormone dependence, extraintestinal manifestations and intestinal complications, heredity is more pronounced and operations on the abdominal region are more often performed.

4. On a number of issues, management decisions are required to optimize and improve the effectiveness of care for patients with IBD:

1) there is a need to improve the tool for collecting data on epidemiological and clinical data related to IBD in the population of Kazakhstan;

2) patients with IBD, like all patients with chronic diseases, need additional psychological assistance to increase adherence to long-term treatment.

### **Approbation of the thesis.**

The main results of the dissertation research were presented at the following conferences:

- 3rd international conference "Farabi Readings" (Almaty, 2016. - April 11-14);

- 5th international conference "Farabi Readings" (Almaty, 2018. - April 3-13);

- symposium 218. Current Challenges of Inflammatory Bowel Disease, 2020 (Mexico 2020. - 6-7th March).

### **Publications on the topic of the dissertation.**

On the topic of the dissertation work, 7 works have been published, of which 3 theses are in collections of international scientific and practical conferences, 3 articles in journals recommended by the Committee for Control in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan: Bulletin of KazNMU - 2, Science and Healthcare - 1, 1 article in a journal indexed by the Scopus database: Intestinal Research (pISSN 1598-9100, eISSN 2288-1956, Scopus Cite Score - 4.3, percentile - 63).