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Infectious Diseases as a Medical-Social Problem

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ABSTRACT: The article studies modern problems of diagnostics and the prevention of infectious diseases; A conclusion is made about infectious diseases as one of the global problems of our time.

KEYWORDS: infectious diseases, mortality, morbidity, epidemic, prevention.

Despite the epidemiological transition that took place at the end of the XX century in the structure of the incidence of insects changing the world in favor of chronic infectious diseases, problems infectious pathology and today is not have lost their relevance.

Infectious diseases, including and new, pose a threat to the development humanity, since it is responsible for a third of the total annual number of deaths in the world. According to World Bank (2008), 50% of cases deaths of children under the age of 5 in the world caused by infectious diseases mi (pathology of the respiratory system, ki-intestinal infections, measles, malaria, AIDS and others), and in the structure of the disease prevalence in this age group infectious diseases account for 80% [1-3].

According to the World Organization health (WHO, 2004), mortality due to infectious diseases in some countries of the world occupies second place in the structure of total mortality, leaving behind only diseases of the circulatory system [4-6].

At the end of the twentieth century, the situation with such widely known diseases as plague, cholera, yellow fever, and more than 30 new previously unknown but dangerous diseases appeared: highly contagious hemorrhagic fevers of Lassa, Ebola, Marburg; HIV infection, legionellosis, bird and swine flu, and others [7-9].

Today, the threat of bioterrorism is real, as epidemics of infectious diseases, especially those caused by highly pathogenic pathogens, lead to severe socio-economic consequences.

One of the most urgent problems of infectious pathology is acute intestinal infections. By According to WHO, more than 4 billion cases of intestinal infections are registered annually in the world, while the incidence among children exceeds that of adults.

Among the huge number of pathogens of infectious diseases, a special place belongs to viruses. WHO declared the 21st century the century of viruses. The most widespread diseases are influenza and parainfluenza, hepatitis (A, B, C) and HIV/AIDS.

For its small historical period, HIV infection became widespread throughout the world, led to severe socioeconomic and demographic consequences, created a threat to personal and public safety. The epidemic process of HIV infection continues to be characterized by high intensity.

Features of the incidence of infectious diseases in the world and in Uzbekistan determine their leading position among causes of premature death and temporary disability of the population. There is a mutation of infectious pathogens and their resistance to chemotherapy drugs [10-12].

The formation of ideas about infectious diseases began in the distant past, however, scientifically substantiated facts that allow us to formulate the corresponding scientific discipline were obtained only at the turn of the 19th century.



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This time is often called the "golden era of bacteriology", because in a very short historical period (only a few decades) discoveries were made that formed the theoretical basis for all further research until the middle of the 20th century.

Despite advances in clinical medicine, the problem of infectious diseases continues to be quite complex in all countries of the world without exception.

Practically throughout the entire 20th century, clinical medicine was mainly engaged in the study of infectious diseases with a typical course [13-15]. At the present stage, new aspects of the problems have been identified, one of which is the establishment of the role of infectious pathogens in the development of chronic inflammatory human diseases, due to which the share of infectious diseases in the overall structure of human pathology can reach 60-70%.

It is known that the protection of the health of the population is a social problem, which to a large extent depends on [16-18]: working conditions, housing and communal services, culture, nutrition, and the availability and quality of medical care. In the last factor, the prevention of infectious diseases is of great importance here.

Correct understanding of the tasks of epidemiology, rational, qualified, purposeful use large arsenal of specific and general - preventive measures will certainly contribute to further success in the fight against infectious diseases.

Among all infectious diseases registered in Uzbekistan, the greatest impact on the health of the population have influenza and acute infections of the upper respiratory tract, viral hepatitis, acute intestinal diseases, tuberculosis, HIV / AIDS, infections controlled by means of specific prevention, parasitosis [19-20].

A completely different picture of infectious diseases can be seen on the basis of domestic statistics: in the structure of causes of death, infectious and parasitic diseases occupy the smallest spectrum, skipping ahead all the rest, primarily diseases of the circulatory and respiratory organs [21-22]. But even such data make specialists worry, because they know the real picture better than others: over the past 15 years in addition to an increase in the level of infectious diseases from 3970 to 4247 cases, mortality from them has sharply increased from 3.4 to 11.1 cases (per 100,000 population). Note that the data given do not take into account tuberculosis, which in turn gave a three-fold increase in mortality over this period.

Compared to diseases of the circulatory organs and neoplasms, men die from various infectious diseases on average 27 and 21 years earlier. But, even with diseases of the respiratory and digestive organs the gap in indicators reaches 20 and 10 years, respectively [23-24].

Infectious and parasitic diseases are the only class from which women die before men. This is primarily due to changes in the age structure of mortality from tuberculosis, the average age of mortality from which has decreased among men by 7 years, and among women by almost 18 years.

Every year, infectious diseases claim hundreds of thousands of lives, and many who have been ill receive incurable diseases complications for the rest of life [25]. According to statistics, it is infectious diseases that cause 26% of of all deaths on the planet (according to the World Health Organization (WHO)).

In 2012, the number of deaths from infectious diseases decreased. Non-communicable diseases accounted for 68% of all deaths, infectious, maternal, neonatal and eating disorders origin (combined) accounted for 23% of deaths worldwide, and injuries accounted for 9% of all deaths.

Thousands, hundreds of thousands and even millions of cases of infectious diseases are registered in the world that affect children and adults not only in underdeveloped or developing countries, but also in countries with a high standard of living. Thus, 4880 people in the world fall ill with diphtheria. Measles infects 354,820 people, of whom 139,300 have died (with 84% vaccination coverage).

Mumps affects 726169 people, whooping cough covers an average of 162047 people, rubella - 114449, tetanus 14272 cases were registered.

Tuberculosis holds the palm among infectious diseases - 5,772,224 cases. At the same time, it can be noted that due to vaccination, such a terrible disease as poliomyelitis - 285 cases worldwide.

And yet such performance was made possible thanks to the consolidated efforts to combat infectious diseases.

Upper respiratory infections are the most common infectious diseases. Among the causes of temporary loss of working capacity, they occupy the first place: even in the inter-epidemic period, they affect one sixth of the world's population.



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Chickenpox and shingles are common worldwide, affecting more than 90% of people.

About 10% of the population over the age of 15 are at risk if they have not previously had smallpox. Tragically, but In recent years, there has been an increase in the incidence among the adult population, especially among people in organized groups.

Currently in the United States, Canada, where mandatory vaccination against chickenpox, was started in 1995. Chickenpox is of historical importance, whereas in the years before the introduction of vaccinations, it affected all segments of the population. About 4 million people fell ill annually, about 90 deaths were recorded.

In Germany, in the period before the introduction of mass vaccinations, about 250 thousand - 300 thousand cases were registered annually. Cases of chickenpox, 5% were in infants.

Meningoencephalitis, as a complication of chickenpox, occurred with a frequency of 1 case per 5000 - 10000 patients.

In Poland during 1995 - 2005. There was a 2-fold decrease in the incidence of chickenpox.

A very urgent problem in Russia is rotavirus infection, the growth of which has been especially noted in recent years, from 635 cases in 1995 to 2970 in 2005, which is 4.5 times higher. In 2011, 8684 cases were already registered. The growth of diseases is mainly associated with the registration of outbreaks, especially among children under 17 years of age.

In 2011, outbreaks of a dangerous infectious disease - measles - were recorded in organized groups, which affected more than 250 children.

According to the World Health Organization (WHO), over the past 10 years, more than 450,000,000 people have been infected with parasitic diseases in the world.

According to some reports, 95% of the inhabitants of the planet are infected with parasites. According to the WHO, in a prosperous and far from poor Europe, parasites are present in every third inhabitant.

According to the observations of the American doctor Ross Anderson, 85 - 95% of the US adult population is affected by parasites, but they do not know about it.

According to official medical statistics, the total incidence rate of various parasitic diseases is 10 times higher than the incidence of acute intestinal infections and in its frequency can be comparable to the incidence of influenza and acute respiratory viral infections.

Bacillary dysentery is common throughout the world. Every year, about 120,000,000 cases of dysentery are severe. The vast majority of which are found in developing countries and among children in under the age of 5 years.

According to some estimates, about 1.1 million. people die from infections every year, with 60% of deaths occurring in children under 5 years of age. Data from other scientists show that about 90 million cases are recorded and 108 thousand deaths occur per year. In addition, about 500 thousand cases of dysentery are reported annually among military personnel and travelers from industrial developed countries.

Malaria remains an urgent problem today. This disease is registered in many tropical countries. It is relevant for European countries as well. The amount of "imported" malaria is increasing during all over the world. According to imported cases of malaria, the problem of tropical malaria is also relevant in European countries. It is registered among travelers, migrants from epidemically dangerous countries, military personnel in quite a large percentage. At the same time, even in developed countries, there is a high mortality rate, which reaches 3%. Complicated course and lethal cases are observed in tropical malaria. Every year about 1.5 - 2 million people die from tropical malaria in the world.

Currently, the highest incidence of malaria is observed in Africa, South America and countries located in southeast Asia.

Despite the small number of cases of "imported" malaria in Russia, the problem is relevant due to the fact that annually a significant number of the country's population makes trips to countries endemic for malaria, but at the same time, chemoprophylaxis is not carried out or is carried out irregularly, or ineffective drugs are used. Also, a significant number of foreigners migrate through Russia to European countries (among migrants, the proportion of malaria patients can range from 4-10% to 58%).



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Viral hepatitis is a serious public health problem [73, 81]. According to WHO, this disease annually kills more than 1 million people. More than 2 billion people in the world are infected with the hepatitis B virus, about 200 million with the hepatitis C virus (HCV) [58]. In Western Europe, approximately 1-2% of the population is infected with HCV.

In Uzbekistan, among the total number of acute viral hepatitis, the share of viral hepatitis A (HAV) is on average 16%, viral hepatitis B (HBV) - 19%, hepatitis C - 6% other hepatitis, the etiology of which is not deciphered, accounts for 1%, and the share of chronic hepatitis - 58%.

The HIV/AIDS epidemic continues to spread. Today, the World Health Organization (WHO) and the Joint United Nations Program on HIV / AIDS (UNAIDS) characterize the situation of HIV infection / AIDS in the world as an epidemic, has catastrophic demographic consequences for all countries. It should be noted that some scientists emphasize the increase in mortality from AIDS, the victims of which are mainly people aged 30-39 years, which contributes to the "conservation" of these negative trends and negatively affects the formation of indicators of the survival of the population, primarily at the age of labor activity.

Recently, more and more attention of researchers has been attracted by a severe mysterious disease that has received called Morgellon's disease. Although the signs of the etiology and pathogenesis of the disease have not actually been elucidated, most researchers tend to think that there is a direct connection between it and modern technologies, and possibly with infections?

It is appropriate to quote from the meeting of the leaders of the G8, which testifies to the anxiety of the most developed countries of the world regarding infectious diseases: "Despite all efforts, the international community cannot yet declare with confidence that infectious diseases will not stop the progress of mankind ... "[5].

Thus, in conclusion, we note that modern infectious disease specialists tend to be rather pessimistic about the prospects for fighting infectious diseases in the next decade, both in the world in general and in Uzbekistan in particular [1; 2; 3].

One involuntarily recalls the words of Louis Pasteur, spoken by the great scientist at the end of his life: "Gentlemen, microbes have the last word."

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