



**TRANSMISSIBLE DISEASES**

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**Abstract:** These are infectious diseases transmitted to a healthy person by pathogens (viruses, bacteria, parasites or blood-sucking arthropods (mosquitoes, ticks, fleas, lice).

**Keywords:** Infection, vector, prevention, epidemic, incubation.

**Introduction.**

Basically, these diseases multiply in a certain region, namely in a climate: tropical and subtropical regions, in a hot and humid climate, near water bodies. Their most common types.

Table 1.

<b>Disease name:</b>	<b>Distributor:</b>
Malaria	Through Anopheles mosquitoes
Leishmaniasis	Via Sandfly
Plague	Through fleas in rodents
Encephalitis and Lyme disease	Through tick bites
Dengue and Zika fever	Through special types of mosquitoes

The main symptoms after infection are: high body temperature (fever), headache, weakness, muscle pain, chills, sweating, skin rashes and damage to small blood vessels, ulcers or swelling appear at the site of the insect bite, in severe cases - damage to the nervous system.

**Main:** According to the World Health Organization (WHO), the most common transmissible disease is: Malaria. Transmissible diseases in Uzbekistan. The most dangerous: Crimean-Congo hemorrhagic fever (CCHF) carrier: ticks of the Hyalomma genus, mainly found in the regions of (Navoi, Kashkadarya, Surkhandarya, Jizzakh). The state has established a blood plasma bank of those who have recovered from the disease in 7 regions. Transmissible diseases are caused by various microorganisms.

Table 2.

Viruses:	Yellow fever, dengue fever, West Nile fever, encephalitis.
Bacteria:	Tularemia, plague, Lyme disease.
Parasites:	Malaria - Plasmodium parasite
Rickettsia:	Typhus fever

It is much better to prevent communicable diseases than to treat them. Prevention: it is necessary to fight the vector that spreads them. Communicable diseases can cause epidemics, they are appearing in new areas due to climate change. There are two types of transmission routes. The first (Biological transmission) is when a patient or animal, the source of infection,



sucks blood and then bites a healthy person, who is also infected. In these diseases, direct transmission is not observed, the disease is spread not from person to person, but through a vector in the middle. The second (Mechanical transmission) the vector only acts as a carrier, the pathogen multiplies from it. The type of transmission of a communicable disease is more complex than other infections: “Vector - person - environment”. In medical diagnosis, the symptoms of communicable diseases have in common with the symptoms of other diseases. Before making a diagnosis, the patient is asked about the region they live in and whether they have traveled.

Malaria - Plasmodium (Malaria) - Malaria plasmodium is characterized by fever, serious changes in the blood, anemia, enlargement of the liver and spleen. The routes of transmission are the patient and the malaria mosquito (mainly female). Malaria plasmodium develops asexually (schizogony) in the body of a patient with malaria, and sexually in the body of the carrier of the disease - the Anopheles mosquito. After entering the body, it passes through the saliva - bloodstream - liver (the first development occurs in the tissue) - into the blood (the second development occurs in the erythrocyte development cycle), erythrocytes break down, and a large amount of the pathogen is released. Symptoms: fever, serious changes in the blood, anemia, enlargement of the liver and spleen. The risk of spreading to Central and Southeast Asia, Africa and Latin America, as well as to Tajikistan and the southern regions of our republic is high. After infection, there is a period of 10-14 days (sometimes up to a year or more) during which symptoms may not appear (incubation or latent period). The disease begins suddenly: the patient has a fever - chills - shivers (sometimes he shivers so much that he freezes even when covered with a warm blanket) - then the shivering subsides - the temperature rises (41 - 41.5 °), the patient becomes lethargic and flushed. The temperature also subsides after a certain time. After that, the patient is observed to sweat profusely. In malaria – once every two days, in four-day malaria – once every three days, in tropical malaria – fever is observed most often every day.

Table 3.

WHO region	Estimated malaria cases (2024)	Share in the global situation	Estimated deaths (2024)	Notes
Africa Region (AFR)	~265 million	94%	~579,5 (95%)	Most common in children under 5 years of age
Southeast Asia region (SEAR)	~5-6 million	~2%	~8,000-9,000	Most cases have been observed in India
Eastern Mediterranean region (EMR)	~11,1 million	~4%	~22,100	It is most common in Sudan, Pakistan, and Afghanistan.
Western Pacific Region (WPR)	<1 million	<1%	Low mortality rate	The incidence has decreased but remains endemic in some areas.
American territory (AMR)	<1 million	<1%	Low mortality rate	In the country of the Amazon basin
European region (EUR)	0 (finished)	0%	0	Malaria has not been observed since 2015



Encephalitis - types of encephalitis are primary and secondary encephalitis. Primary encephalitis is usually considered a viral disease and under certain conditions spreads like an epidemic. Most primary encephalitis is specific to a specific place, and the disease occurs in certain seasons, depending on the biology of the pathogen. Primary encephalitis includes encephalitis transmitted by mosquitoes and ticks, as well as enterovirus, trauma and chemical agents.

Secondary encephalitis occurs as a result of some infectious diseases (influenza, measles, rubella, etc.).

Primary encephalitis. Transmitted by ticks (occurs when bitten by an infected animal) - to humans (this virus spreads from person to person due to poor hygiene). Symptoms Inflammation of the brain is accompanied by an increase in body temperature, weakness, dry mouth, drowsiness, headache, vomiting, seizures. After infection, the incubation period of the disease is from 5 to 15 days. The disease begins suddenly with rapidly increasing general infectious symptoms. On the first day of the disease, febrile fever appears, from the second day the disease is accompanied by a feeling of heat or severe chills, acute headache, vomiting, severe malaise, weakness, confusion, myalgia, redness of the face and conjunctivitis, bradycardia, then tachycardia. Often, coma develops, petechial exanthema is accompanied by changes in consciousness. Common symptoms of the acute phase are myoclonic fibrils and fascicular twitches in various muscle groups, especially in the face and limbs, and coarse, non-rhythmic tremor of the hands, aggravated by movement. Several syndromes are distinguished in the clinical picture of the disease, which can be combined with each other.

Table

4.

Indicator	Global settlement
The leading global cause of viral encephalitis	Japanese encephalitis virus (JEV)
Estimated clinical cases (per year)	~100,000 case/year
Estimated annual deaths	~25,000 deaths/year
Morbidity and mortality rate	Up to 30%
Long-term neurological complications	Survivors 30-50%
Countries with endemic transmission	24 countries
Population at risk	>3 billion people

**Conclusion:** To prevent the spread of communicable diseases, we need to improve sanitary and epidemiological services, kill insects, and pay attention to personal hygiene. We need to pay great attention to diagnostics.

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