



Status of computerization and systemization of infectious disease countermeasures in Tomsk

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Automation of Medical Care Processes in the Field of Infectious Diseases

Doctors

- enhanced qualified Electronic signature
- access to continuing medical education
 - automated workplaces



Medical organizations

- Internet access
- telemedicine appointments
- medical information system
- laboratory information systems
- reference federal subsystem

Unified State Information System in the Field of Healthcare



Federal Register of Persons with a New Coronavirus Infection COVID-19

FRCOVID-19

Federal Register of Persons Infected with the Human Immunodeficiency Virus

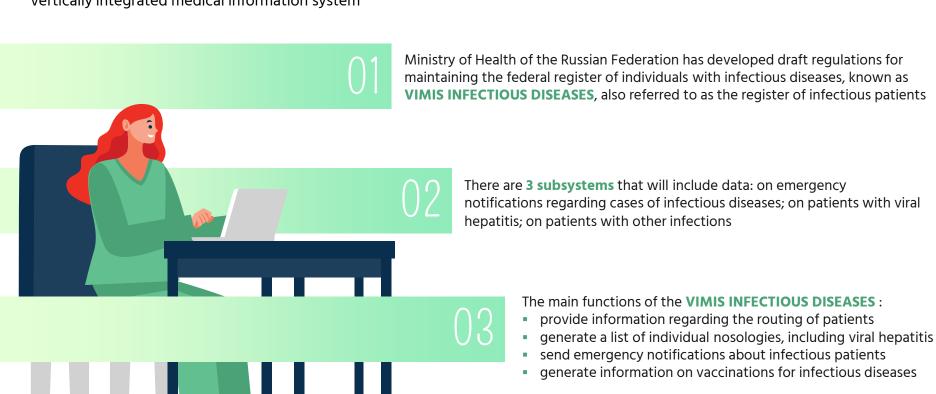
FRHIV

Federal Register of Persons with Tuberculosis FRT

Federal Register of Persons with Viral Hepatitis

VIMIS FR VH

VINS vertically integrated medical information system



VINS vertically integrated medical information system

The emergency notification list comprises **282 diseases**, which include: giardiasis and viral enteritis; diphtheria, scarlet fever, and measles; tick-borne encephalitis; influenza and COVID-19

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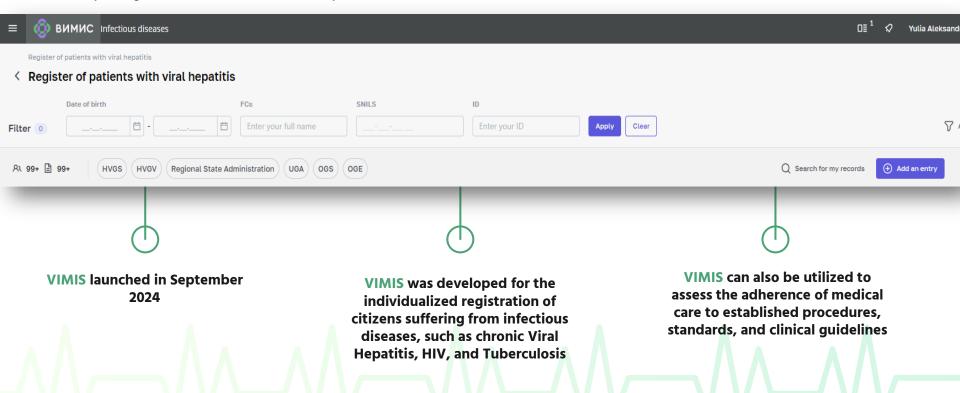
Medical organizations, the Federal Migration Fund, the Ministry of Internal Affairs, the Federal Tax Service, and other entities will provide information to the register

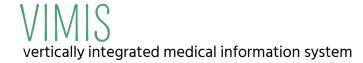
- The document defines the composition of information and the terms of its entry into the register. For example, the results of tests must be submitted within 2 hours of their receipt
- The draft rules of its maintenance were proposed in December last year
- The document was finalized and submitted for public discussion



VIMIS

vertically integrated medical information system



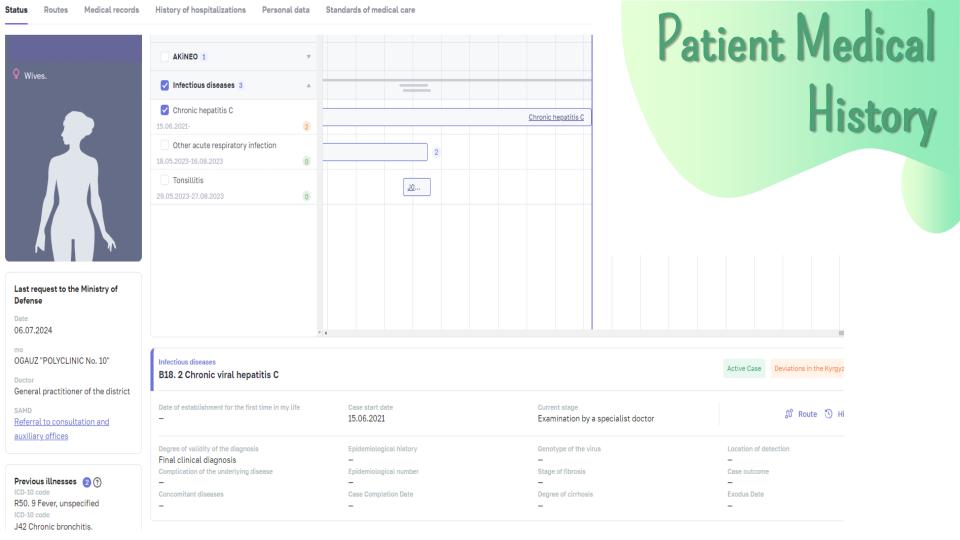


The system is intended to perform the following functions:

- Document HCV detection in the emergency notifications register to assist with manual data entry and organized Electronic Medical Records (EMR)
- Oversee, analyze, and manage epidemiological metrics regarding patient numbers using medical statistics and a report generation tool

The registration of patients with Hepatitis C and newly recognized Viral Hepatitis types, along with those previously diagnosed with HIV, involves gathering information through support in related areas such as VIMIS for "Oncology", "Cardiovascular Diseases", "Obstetrics and Gynecology and Neonatology", and "Preventive Medicine" concerning the following nosology:

- Chronic viral hepatitis C (B18.2)
- Chronic hepatitis B (B18.0; B18.1)
- Acute hepatitis B (B16; B17.0)
- Acute hepatitis C (B17.1)
- Other chronic viral hepatitis (B18.8)
- Other acute hepatitis virus (B17.8; B17.9)
- Another viral hepatitis (B18.9: B19.0: B19.9; B94.2)



Content of VIMIS

General Information about Patients with Viral Hepatitis

full name, age, address, nationality, gender and place of birth Information about Viral Hepatitis and Medical Care Provided to Patients

the timeline of clinical symptoms, detection of viral hepatitis, details regarding the provision of medical care for viral hepatitis, complications and associated diseases, laboratory tests, and the results of viral hepatitis treatment (start date, completion date), and medications used

Information about the Patient's Examination (study) and the Corresponding Results

the date of the blood analysis, the conduct of the investigation, the medical organization where the laboratory tests were performed, information about the test system (manufacturer, method); results of the investigation for the presence of viral hepatitis (indicating the specific pathogen), and results of strain sequencing (if available)

Epidemiological Information of the Patient

name of the country from which the patient arrived, the date of arrival in the Russian Federation, the place of entry into the territory of the Russian Federation, the probable route of infection, the probable source of infection, and any information regarding vaccination against viral hepatitis (if applicable); details about the primary anti-epidemic measures implemented by the medical organization upon the detection of the disease in the patient (viral hepatitis)

Other Information

additional data of state information systems in the health sector, as well as federal databases and registers related to health, is provided by the normative legal acts of the Russian Federation. This includes cases where the patient has other diseases, such as HIV infection, tuberculosis, and etc..

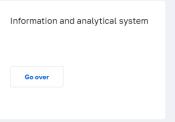
Federal Register of Persons with a New Coronavirus Infection COVID-19

Information resources of the Ministry of Health of the Russian Federation for monitoring the epidemiological situation on COVID-19

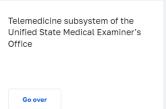


Federal Register of People with COVID-19

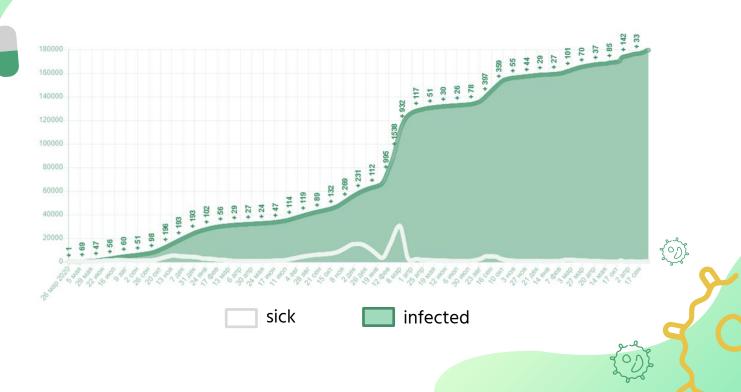
System for collecting statistical indicators



Interaction of federal and regional remote resuscitation and consultation centers



Federal Register of Persons with a New Coronavirus Infection COVID-19



Federal Register of Persons with a New Coronavirus Infection COVID-19



In Tomsk Region, 179,498 people were infected with the coronavirus, 1,041 died, and 178,134 people were cured. As of January 24 2025, the number of active patients is 323, which represents 0.03% of all patients worldwide

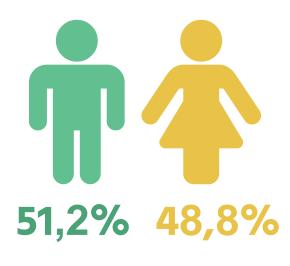
In the world, for every **1,000** infected individuals, **10 people die**, resulting in a mortality rate of 0.99%. In Tomsk Region, the mortality rate is **1.7 times lower** than the global average, standing at **0.58%**

The age distribution is as follows: people aged 18-29 years - **32,471** (14.4%), 30-49 years - **87,266** (38.7%), 50-64 years - **55697** (24.7%), and 65 years and older - **50,060** (22.2%)

Federal register of persons infected with the human immunodeficiency virus

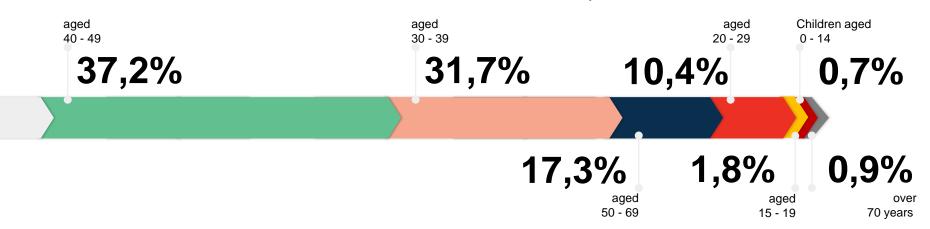
Gender composition of newly identified people living with HIV in Tomsk Region







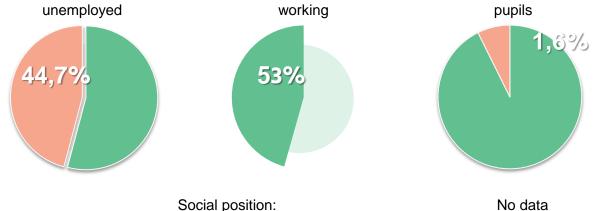
Federal Register of Persons Infected with the Human Immunodeficiency Virus



Age Structure of Newly Identified People with HIV

Federal Register of Persons Infected with the Human Immunodeficiency Virus

Social Status of Newly Identified People with HIV

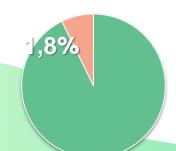


position	frequency	%
children aged 0-14	4	0,7
unemployed	248	44,7
working	294	53

Absolute

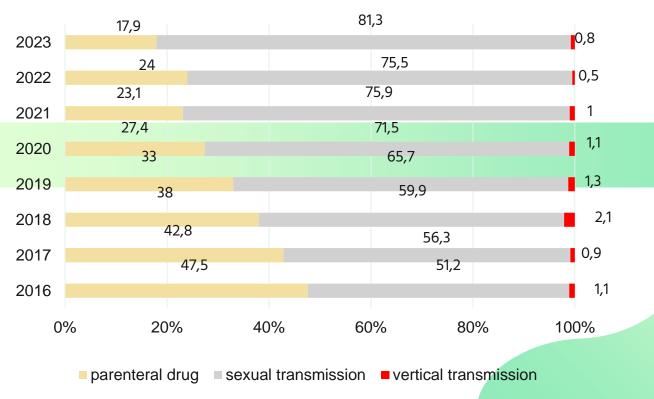
Social

- pupils		
	0,5%	
Students of colleges		
- Students of the	0,7%	
university		
	0,4%	



Federal Register of Persons Infected with the Human Immunodeficiency Virus

Modes of Transmission of HIV Infection



Federal Register of Persons Infected with the Human Immunodeficiency Virus

Coverage of Antiretroviral Therapy



- Received antiretroviral therapy
- Coverage of antiretroviral therapy for persons registered at the clinic

In 2024, there are NO confirmed cases of occupational HIV infection among medical workers in Tomsk Region!



Conclusions



- Application of digital technologies is crucial for the successful development of healthcare in Russia
- Digital technologies used to diagnose infectious diseases enable rapid receipt and processing of patient information
- Technologies enhance monitoring and control procedures within medical institutions, expand remote patient management capabilities, and facilitate the launch of new services supporting doctors in their decision-making process

