



Viral Hepatitis Prevention Board

Prevention and control of viral hepatitis in the Russian Federation: lessons learnt and the way forward*

MOSCOW, RUSSIAN FEDERATION

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*Co-sponsored meeting between VHPB and the Sechenov University, Moscow

Objectives - Цели

- Review the epidemiological situation on viral hepatitis and burden of disease in the Russian Federation
- Provide an overview of surveillance systems for viral hepatitis and infectious diseases, current approaches to treatment of chronic viral hepatitis, current issues of organization of medical care and access to treatment for patients with viral hepatitis
- Identify achievements and challenges in prevention and the possible implementation of new national prevention strategies
- Discuss the development and implementation of a national plan of action to control viral hepatitis in Russia
- Evaluate what is still needed to achieve the viral hepatitis elimination goals defined by the WHO global health sector strategy on viral hepatitis and WHO's Regional Office for Europe, identifying successes, issues and barriers to overcome, and the way forward.
- Clear, concise presentations and lively discussions clearly demonstrated that these objectives were met in full.

Context - Контекст

- In the 2030 Agenda for Sustainable Development, adopted in 2015, Goal 3 (ensure healthy lives and promote well-being for all at all times) has a target “to combat viral hepatitis”.
- In 2016, the World Health Assembly adopted the global health sector strategy on viral hepatitis, and the WHO Regional Committee for Europe adopted an action plan for the health sector response to viral hepatitis in the WHO European Region. Both are available in Russian. The Regional Action Plan set the goal of elimination of viral hepatitis as a public health threat by 2030: that means “reduce incidence and mortality by 90%”. It also sets interim hepatitis B control targets to be achieved by 2020. WHO has issued numerous guidelines and recommendations on various aspects of viral hepatitis.
- The WHO Regional Office for Europe works with the Ministry of Health in the Russian Federation on a country cooperation strategy for the period 2014-2020 on strengthening the national health system and reinforcing health promotion and prevention.
- The Declaration of Astana on Primary Health Care (October 2018) reaffirmed the commitment of State leaders to primary health care.
- Several international clinical guidelines on treatment have been published (e.g. EASL, AASLD, and APASL); existing Russian guidelines have been developed that take into account international recommendations and local context.
- Despite good progress in the Russian Federation in the past decade, viral hepatitis remains a serious national public health problem, needing prevention and treatment priorities. The meeting, drawing participants from across the whole country, provided a welcome opportunity to share experience and find solutions.

Health care systems – Системы здравоохранения

- The country's Constitution (Article 41) guarantees “the right to health protection and medical aid ... rendered to individuals gratis”.
- The Ministry of Health sets policies and legal framework, and delegates responsibilities for implementation through national medical centres, federal and regional health institutions, inter-regional specialized care entities, and other facilities to district, municipality and community levels. Ministry responsible for issuing clinical recommendations and ensuring their incorporation into practice, and quality control criteria.
- Federal laws and recent strategic documents (2015-2017) exist, aiming at uniform policies and prioritization of funding. The Presidential Decree of May 2018 identified health as a National Health Project to 2030; two such projects are cancer control, including liver cancer associated with viral hepatitis, and ensuring optimal access to primary health care (which delivers 60% of health care). Goals and expected results include increasing treatment, reducing mortality and educating the general population.
- The Ministry of Health is in charge of an expert group to draft a new law on public health and biosecurity, prioritizing the preservation and promotion of public health and which will include maintenance of the federal viral hepatitis patient registry, provision of treatment and care, better surveillance and raising public awareness; it will also reflect clinical recommendations. A further new law specifically on viral hepatitis is envisaged.
- Funding of health care derives from the Federal Compulsory Medical Insurance Fund, government budgets and out-of-pocket payments, but a private health insurance market is growing, particularly in large cities. Funding will be linked to identified needs and reflect costs of all relevant services rather than be related solely to numbers of patients.

Health care systems (continued) - Системы здравоохранения (продолжение)

- In 2019 programmes on prevention and control of socially significant diseases will be implemented.
- The Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing (Rospotrebnadzor) is the executive body which is responsible for carrying out federal state sanitary and epidemiological surveillance, as well as the development and approval of the state sanitary and epidemiological guidelines. Rospotrebnadzor reports directly to the Government of the Russian Federation. It operates at federal, regional and municipal levels in close collaboration with the Ministry of Health. The Reference Center for Viral Hepatitis serves as an expert body for Rospotrebnadzor in the relevant field.
- Rospotrebnadzor also works with other concerned ministries (Defence, Justice and Agriculture), which have medical administrations.
- Rospotrebnadzor collects, analyses and shares data and information; its activities include forecasting and planning specific anti-epidemic actions and target setting for plans.
- A Federal Registry of Viral Hepatitis Patients was established but it is not yet implemented across whole country; work is being undertaken or planned to improve it with inclusion of modules on monitoring, clinical and laboratory data, antiviral treatment and statistics. It allows disaggregation of data for example by age, sex, route of transmission (HCV), genotype, fibrosis stage, and temporal changes. With more than 500,000 patients on record, it is a “living and evolving system”.

Surveillance and control - Эпиднадзор

In 2016 **WHO** has published a monitoring and evaluation framework for viral hepatitis, with a special focus on acute and chronic disease and a protocol for surveillance of sequelae.

Also in 2016, it issued guidelines on surveillance of viral hepatitis and new recommendations for the screening, care and treatment of persons with chronic hepatitis C infection – a policy brief.



HAV and HEV

HAV: the changing epidemiology seen in the Russian Federation matches global trends, reflecting improved socioeconomic conditions and better hygiene and sanitation. The numbers of older susceptible people and cases of more serious disease are increasing. Outbreaks still occur through contaminated water and food, but transmission routes are changing, with more cases in people who inject drugs (PWIDs) and men who have sex with men (MSM) – lessons can be learnt from other countries with recent outbreaks (e.g. USA). Very varied patterns of HAV epidemiology are seen across the Russian Federation.

HAV vaccination is currently not part of the Russian routine immunization schedule. The example was presented of the introduction of the vaccine in the Republic of Tyva which had a dramatic impact on incidence rates: the only recent cases seen were imported.

HEV. Only a small number of cases are seen, including a few that are imported, but there is some serological evidence of infection in the population. The contribution of pig farms to HEV epidemiology was confirmed. Awareness among doctors and public remains very low. The fact that no vaccine exists raises questions about the utility of surveillance.

Epidemiology - Эпидемиология

HBV

- Introduced in 1997 hepatitis B vaccination has dramatically cut the number of cases of acute infection and resulted in a decreasing incidence of chronic hepatitis B. About 3.3 million people were immunized in 2017, giving a cumulative total of about 100 million people vaccinated. Vaccination coverage rates for children have reached targets and those for adults are approaching the targets. That great progress has been made is widely acknowledged.
- Screening of pregnant women is almost 100% with accurate data (showing an average seroprevalence rate of 0.2% but rising to 8% in some regions).
- Incidence rates of acute disease indicate large falls in most of the country but pockets with rising rates (e.g. Rostov region) are found, particularly in 30-39 year olds. Rates vary across the country (as high as 62/100,000 population in the Republic of Tyva in 2017), but overall the rate of chronic cases is falling.
- The most common genotypes of HBV seen are D and A.

HDV

- HDV is endemic in a few areas of the country, including Yakutia and Republic of Tyva where HBV is hyperendemic. Migration is a major contributor to transmission, but multiple routes are possible, including mother-to-child and intrafamilial transmission. No effective treatment is currently available.

Epidemiology - Эпидемиология

HCV

- Currently, chronic HCV infection is the most relevant viral hepatitis problem in the Russian Federation (accounting for most cases of virus-induced cirrhosis and 30% of liver cancer), although wide variations are seen across the country. The highest prevalence rates are seen in the 30-39 year age group, with rates rising over the past 7 years in the 40-49 year age group.
- Apparent changes in incidence rates (a fall of about 12% between 2014 and 2017) may reflect a decline in the epidemic of injecting drug use that burst on the country in the 1990s. High recorded rates may reflect good screening and reporting practices.
- The number of cases of chronic HCV is estimated to be around 4.9 million, with an increasing trend on mortality, although it was noted that HBV and HCV mortality data “do not correspond to reality”.
- Number of patients being followed up is now about 600,000, with rising numbers of deaths from cirrhosis and liver cancer linked to hepatitis viruses.
- Sexual transmission is often a reported route of infection, but that may be due to PWIDs not wanting to risk being stigmatized. Very few PWIDs present to health facilities with symptoms of HCV disease, raising issues of access as well as attitudes.
- Testing algorithms include detection of HCV RNA; the latter is not universally available (neither covered by mandatory insurance) and should be expanded. Testing for HCV antigen may be used as a confirmatory test to simplify the algorithm.

Epidemiology - Эпидемиология

- The epidemiology and burden of viral hepatitis disease were reported from the four corners of the Russian Federation – representing very diverse and varied locations and populations: Chelyabinsk Region, Krasnodar Region, Far Eastern Federal District, Republic of Sakha (Yakutia), North Caucasus Federal District and Chukotka Autonomous District. Themes to emerge included:
 - Regions have significant disease burdens (with many patients presenting at late stage of disease) but few funds; difficult to project financing
 - The costs of treatment are high, and there is no national programme for treatment
 - Patients have to fund their own treatment – a low-income communities outside main centres
 - Follow-up of treated patients is poor
 - Norms and standards for screening are lacking or not well disseminated, and doctors and public health professionals generally have poor awareness of criteria for screening
 - Crucial role of health practitioners and continuing education
 - Value of mobile outreach and telemedicine, and some operational models of the cascade of care with possible positive outcomes.

Risk groups - Группы риск

- Early results of a study of HBV and HCV in PWIDs in Saint Petersburg indicated the value of outreach services in improving access to care and the need for valued counsellors.
- Many PWIDs shared a belief that the risk of infection did not apply to them.
- No PWID could afford testing and treatment costs for one infection, let alone co- and multiple infections.
- Little attention seems to be being paid to the risks facing prisoners, MSM and commercial sex workers or to preventive action or care for them. It was reported, however, that Russian prisons had had some successes in health care; screening and access to treatment were generally better than for the general population – funding comes from the justice ministry.
- Health care workers and patients through nosocomial infections: besides sharps, sputum was identified as a high-risk vehicle for transmission of HBV and HCV.

Prevention and control – vaccination

Профилактика и контроль - вакцинация

- Presentations on the state of the art were made on the following subjects by VHPB advisers:
 - WHO guidelines on surveillance for viral hepatitis
 - WHO's global health sector strategy on viral hepatitis and guidelines for treatment of chronic hepatitis B and C, and the action plan for the health sector response to viral hepatitis in the WHO European Region
 - Optimizing screening strategies for viral hepatitis
 - Current strategies of hepatitis A vaccination
 - Lessons learnt from hepatitis B vaccination worldwide and the way forward
- Russian participants identified a lack of information on the coverage of newborns with the first, birth dose of HB vaccine – data that would be needed to confirm attainment of regional goals

Role of civil society - Роль гражданского общества

- Presentations from two nongovernmental organizations revealed a broad range of activities and interests, including a survey of website users which indicated: that special viral hepatitis programmes existed in only 14 of the 56 regions that responded; low awareness; and that patients generally received poor, inaccurate or no information.
- One of the main aims of the organizations is to ensure access to combinations of all-oral, pan-genotype, direct-acting antiviral agents. Data on prices, volumes of drug supply and demand, reviews of guidelines, and translated up-to-date information were provided on a website; this activity could be expanded.
- Concerns were expressed about perceived insufficiency (or absence) of the provision of prevention and care services for viral hepatitis in the Russian Federation, the lack of a unified approach to prevention and treatment, the costs of testing and treatment, the paucity of infectious disease physicians able to deal with viral hepatitis, the need for continuing education of all medical professionals, raising public awareness, and that more work was needed on the economic impact of viral hepatitis and the economic benefits of treatment for both patients and the State.
- The Ministry of Health acknowledged such concerns and welcomed the healthy discussion of the issues; it noted progress - a similar meeting years ago with representatives of patient groups would have been unthinkable.
- Experience on improving access to antiviral treatment in Europe and Central Asia offered valuable lessons to be learnt.
- The community had a valuable role in engaging with pharmaceutical companies, other stakeholders and patients in improving access to treatment.

Increasing access to treatment of chronic viral hepatitis in the Russian Federation - Расширение доступа к лечению хронических вирусных гепатитов в Российской Федерации

A panel discussion examined the role of the State, business and the professional community. Consensus emerged on the following points:

- Currently there exists an opportunity to put viral hepatitis more firmly into the public system in the Russian Federation, but it is imperative to determine the burden of disease
- Now is also the time to pay more attention to neglected groups (e.g. PWIDs, the drivers of the epidemic)
- The country's clinical guidelines of 2017 need updating to reflect the much better treatment options with direct-acting antiviral agents and they could benefit from introduction of priorities. Some antivirals recommended by EASL are not registered in the Russian Federation.
- New thinking is needed about the funding of treatment through the mandatory health insurance system (it is cheaper to treat with antivirals than to provide care in hospitals)
- Links to care exist, but these need to be developed, strengthened, enhanced and built upon
- A crucial step is to create a more coordinated approach, by designating a leader and a national body to bring stakeholders from all regions around the same table.

National action plan - Национальный план действий

- Some 15 countries in the WHO European Region have national hepatitis plans.
- A national action plan to eliminate viral hepatitis as a public health threat in the Russian Federation by 2030, with strategic directions, priorities and targets is being prepared. There was agreement on the urgent need for such a plan.
- Clinical guidelines such as those of EASL are generally accepted in the Russian Federation but the challenge is their translation into practice across the country with its different systems and specificities.
- Other challenges are: the limited availability of antiviral agents and access to vulnerable groups; the ability of people to pay (“only 5% of the population can afford treatment”); the need to optimize data, especially collecting data on outcomes (in particular for hepatitis C) so that authorities can appreciate the seriousness of the disease.
- Four groups discussed what remains to be done in order to align with WHO’s strategies and action plans – see below.

How to achieve the goal of eliminating viral hepatitis in Russia by 2030? - Как достичь целей по ликвидации вирусного гепатита в России к 2030 году?

- **Epidemiology:** recommendations included new guidelines for recording deaths in cirrhotics, updating existing regulations, introducing a birth cohort screening approach, improving screening algorithms, a study of the efficiency hepatitis B vaccination, inclusion of data on coverage of the birth dose in statistical reporting forms (joint reporting form), and pay more attention to risk groups.
- **Prevention:** despite very good coverage rates of infant vaccination (HB) and screening of pregnant women, anti-vaccine groups are active. The population needs to be educated and informed, and the media has a positive role in supporting vaccination activities. Vaccination should be extended further to risk groups and those aged older than 14 years (up to 55 years of age). Health care workers should be vaccinated free of charge during medical or paramedical training. Ongoing programmes and intervention need evaluation, with verification of aspects such as the cold chain and the quality of reported data.

How to achieve the goal of eliminating viral hepatitis in Russia by 2030? - Как достичь целей по ликвидации вирусного гепатита в России к 2030 году?

- **Treatment:** Although HIV co-infected patients get federal funding for treatment, patients with single hepatitis virus infections do not. Treatment regimens in many regions are still based on interferon and ribavirin; DAAs are much more effective and better tolerated; regional disparities need to be corrected. The issue of unregistered drugs needs solutions. Best treatment results depend on determining viral load and information on stage of fibrosis: steps need to be taken to overcome the absence of such information. A central negotiating agency is needed in order to obtain new drugs at lower prices. Difficult issues remain relating to standardization and equal access.
- **Screening:** Viral hepatitis is not included in the national health check programme as offered to all citizens and paid for by the health insurance fund. That could help improve the link between screening and care. Diagnosis is not linked to treatment; cases are registered but no information about outcomes is captured. Funding for treatment varies with region, meaning that treatment depends on a lottery of home location. There is no national strategy for viral hepatitis as there is for HIV/AIDS; the challenge is to increase pressure for a “silent disease”. There is no federal budget line for treatment or mandatory health insurance reimbursement; solutions are for the Federal Government to create such a budget line. There appears to be a willingness to pay.

Issues – Проблемы

- The concept of treatment as prevention is not widely recognized.
- The question of whether international guidelines on treatment should be adopted or adapted, or whether national guidelines should be produced to reflect the Russian Federation's specificities? Conversely, should international guidelines pay greater consideration to the specifics of different countries in future revision?
- The very high cost of direct-acting antivirals in the Russian Federation, especially when compared with that in other countries; an issue is who should enter into negotiations with pharmaceutical companies and how?
- How to get DAAs inscribed into essential drugs lists (thereby making them more affordable)?
- Several issues surround generics, including the legal framework (prescribing them risks contravening the criminal code if they are not registered), quality, access and cost.

Issues (Continued) – Проблемы (продолжение)

- How to translate legal framework of public health into action at the patients' level.
- Sustainability of funding of viral hepatitis programmes.
- Whether to introduce HAV vaccination into routine immunization schedules.
- Data: questions of accuracy (e.g. mortality due to HBV and HCV) and reporting processes, with long chains and delays; issues about reporting may also be the consequence of poor access to diagnosis and treatment.
- Action to be taken for health care workers infected with HBV or HCV, including surgeons undertaking exposure-prone procedures.

Recommendations – Рекомендации

- Raise awareness of viral hepatitis among the medical profession, public health authorities, legislators and the general population
- Include patients and all stakeholders at all levels of policy-making and implementation; recognize and support civil society organizations.
- Improve access to care, diagnosis and treatment (in particular, replacing interferon-based treatments), including addition of antiviral agents for viral hepatitis to essential drugs lists, and affordability.
- Adopt international treatment guidelines and increase coverage of antiviral treatments.
- Conduct health economic studies on the potential cost benefits and savings of prevention and treatment.
- Ensure implementation of (mandatory) vaccination of health care workers and medical students.
- Improve prevention of hepatitis B and C virus transmission in health care settings by ensuring implementation of infection control and standard precautions by health care providers and promoting safe injection practices.
- Screen all health care workers who perform exposure-prone procedures (for example, surgeons), and establish a list of all exposure-prone procedures defined as “medical procedures where there is no contact between the eyes and the fingers tip of the performer”. Based on results of screening of health care workers, restrict exposure-prone procedures for HBsAg-positive subjects with a viral load ≥ 2000 IU/ml until treated with an antiviral agent with annual follow-up thereafter.

Recommendations (Continued) – Рекомендации (продолжение)

- Ensure sustained funding for implementation of policies and programmes.
- Improve quality of data – including mortality, attributable fractions of liver cancer and cirrhosis to HBV and HCV, chronic cases, better registration of cases and inclusion of HDV through making it a notifiable disease.
- Expand viral hepatitis patient registry to cover all regions and parts of the country.
- Improving quality control of diagnostic tools and establish an accreditation programme for validation of the methods used by various diagnostic laboratories countrywide.
- Improvement in screening programmes for HBV and HCV infections and disease.
- Improve outreach and provision of care to PWIDs and other marginalized groups such as commercial sex workers and men who have sex with men.
- Ensuring registration and record keeping for the birth dose of HB vaccine.
- Improve coverage of HB vaccination of adults, and identify non-responders to HB vaccination.
- Need to define “chronic” for HCV infection and disease (duration of circulation in blood).

VHPB, Moscow meeting
Совет по профилактике вирусных
гепатитов,
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Thank you for your attention

Спасибо за внимание

