

Viral Hepatitis Prevention Board

Prevention and control of viral hepatitis in the Baltic States: Lessons learnt and the way forward

**RIGA, LATVIA
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Objectives

- To provide an overview of the current health care systems and review the surveillance systems for infectious diseases
- to review current prevention and control measures for viral hepatitis and discuss progress achieved
- to review the possibilities for implementing new prevention strategies, control measures and monitoring systems
- to examine where hepatitis fits in EU's projects and calls
- to look at the economic impact of hepatitis control
- to discuss regional or national viral hepatitis plans or programmes
- to analyse the lessons learnt and remaining issues and barriers to successful prevention and control of viral hepatitis

Background

- On independence, all 3 countries inherited the Soviet health system (centralized sanitary-epidemiological (sanepid) and health defence/protection); as independent States they gained direct access to the services of the WHO Regional Office for Europe
- Public health reforms: new perception of “public health” and new structures and legislation were required
- Consequently, parliaments enacted laws establishing the legislative basis for numerous activities in areas such as immunization, surveillance and reporting of infectious diseases, securing the blood supply, and establishment of nongovernmental organizations
- At the same time, innovative approaches were taken, such as Estonia’s emergence and pre-eminence as a digital society.
- Outbreaks of viral hepatitis and HIV occurred before 2000s when no preventive measures or information were available; viral hepatitis was not a public health priority at that time

Background - continued

- Accession to the European Union (2003) meant adjustment of national policies and practices in line with appropriate legislation and policy requirements that included working with bodies such as ECDC
- The financial crisis (2007-2008) hit all three countries hard; recovery rates varied, with Lithuania's economy recovering slower than that of the other two countries; emigration weakened some sectors
- The World Health Assembly recently adopted resolutions on viral hepatitis calling for the drafting of a global strategy; regional plans are in place with the WHO European Region's target of elimination by 2030, including verification processes. WHO established its Global Hepatitis Programme and, through a consultative process, is drafting a global health Sector strategy on viral hepatitis 2016-2021. WHO recommends the development of national plans for viral hepatitis prevention and control

Health care systems

- Similar structures now in all three countries with parliaments setting legislation, governments determining payment for health services through regulations of cabinets of ministers and setting health policies through health ministries and hierarchical structures thereof, including centres for disease prevention and control, health boards or inspectorates and national health service bodies, health insurance funds and decentralization to regions, territories and municipalities
- Health insurance funds rely on taxes paid by residents
- Total health expenditure is about <4-7% of national GDPs, below European Union average (although Latvian legislation obliges it to be below 4%), but budget supplemented by patients' co-payments for instance
- Governments provide many free health services for their residents, including vaccines for routine immunization and their administration and emergency health care for acute conditions in people without health insurance. Latvia imposes a patient's fee for some services and reimbursement policies include provision for co-payments by patients, although forthcoming budget may approve reimbursement of treatment costs for viral hepatitis at 90% level. The other two countries give 100% reimbursement.
- The private sector for health care and services exists but is small and its activities have not always been successful

Health care systems - continued

- Hepatitis B vaccination introduced at different times (for newborns in 1997 and 1998 in Latvia and Lithuania, but not country-wide in Estonia until 2003). As first immunized cohort reached the catch up rates debates continue around ending or adapting catch-up vaccination of adolescents and immunization schedules. There were also concerns about possible delays in actual timing of birth dose. Specific policies applied to the use of monovalent vs pentavalent or hexavalent vaccine. Debates around high prevalence in some adolescent, young adult, immunized cohorts should be assessed in order to determine efficacy of vaccination.
- Concerns are being raised, not just in the Baltic States, about impact of expensive new drugs, e.g. already in oncology and increasingly with new direct-acting antivirals for hepatitis C, although these are not yet used in the three countries (with the exception of simeprevir, boceprevir and telaprevir in Estonia and interferon-free DAA combination treatment in Lithuania in past few weeks); Latvia plans to introduce unspecified new treatment(s) in 2016. Lithuania has guidelines for diagnosis and treatment of chronic hepatitis B, date from 2005 – not a “socially important disease”; 3000-5000 patients with chronic hepatitis B being followed up. Possibly 10,000-12,000 patients with chronic hepatitis C (with budget for treatment). Clinical guidelines updated in 2015

Health care systems - continued

- Generic versions of DAAs are already being manufactured and sold at much lower prices in Asia, but not available locally (although reportedly brought into Lithuania)
- Not known if Baltic countries are going to purchase any of these new antivirals or use different mechanisms such as negotiated contracts with manufacturers

Surveillance and epidemiology

- Initial worsening of viral hepatitis rates after independence before new interventions were introduced and had time to take root; waves of infection followed epidemics of injecting drug use among young people
- Surveillance – legislative base long established; good use is being made of electronic information systems and linked databases
- Excellent examples presented of well-designed studies and of opportunism (using available funding to bring viral hepatitis into HIV studies when possible)
- Hepatitis A: increasing pool of susceptible seronegatives; large outbreaks seen; and travel increases risk of introduction of virus and secondary transmission. Vaccination of people at risk is recommended.
- Hepatitis B: rates were high until vaccination was introduced into routine immunization programmes more than 10 years ago; concerns were raised about policies on birth dose and timeliness, use of hexavalent vaccines, poor-quality or insufficient screening, especially of pregnant women. Need for evaluation of the interventions/programmes. Rates of chronic hepatitis B rates appear to be rising. (Validation of reported cases is needed).
- Mutations seen in all viral genes and at all stages of disease; molecular biology useful in investigating outbreaks and transmission routes

Epidemiology (continued)

- Hepatitis C: prevalence rates are among highest in Europe (at around 2-3%) and very high in people who inject drugs (up to 90% in Tallinn in 2013 and 77% in Lithuania in 2015); incidence of chronic hepatitis C virus infection is rising, especially in men and people who inject drugs (PWID). Nucleic acid testing (NAT) vital for protecting the blood supply.
- Genotyping indicates that transmission of HCV is spreading from PWIDs to the general population through heterosexual intercourse
- PWIDs have also high rates of markers of hepatitis B virus infection (10.5% in Lithuania in 2015) and co-infections (HBV, HCV and HIV)

Epidemiology (continued)

- MSM, CSWs and prisoners also have high reported rates, but data are too few and probably not representative although Lithuania participated in large European internet surveys; interviewed MSM reported low rates of completion of a full course of hepatitis B vaccination
- Nosocomial transmission of hepatitis B and C viruses a major risk factor for older age groups although this statement is mainly based on questionnaire responses rather than on epidemiological investigations. With exception of Latvia where all possible risk factors are investigated by detailed interview improved surveillance of nosocomial infections and implementation of universal precaution measures should reduce the rate of nosocomial hepatitis B and C.
- Hepatitis E is present in game (wild boars) and pigs; in humans a few sporadic domestic and imported cases) but no outbreaks; little known about extent of infections but sound serological studies with good standardized and validated assays show prevalence rates of 17% in Sweden

Prevention and control

- Control measures for hepatitis A outbreak in Latvia included broad dissemination of technical and general information about preventive measures, recommendations for prevention issued on the web site of the national Centre for Disease Control and Prevention and posters stressing importance of hand-washing
- Successful actions have been taken to make blood supply safe
- Numerous strategies and activities were described, with varied results that are sometimes hard to determine, although a positive development was the inclusion of evaluation now in many programmes; successful policies on protection health care workers are in place in some instances (e.g. vaccinating medical students)
- Lessons learnt from successful advocacy action such as those around World Hepatitis Day should be built upon in the future

Prevention and control (cont'd)

- Obstacles to prevention and control include the perceptions by some that treatment of drug use is impossible and that other people than PWIDs are more deserving of care because the damage is self-inflicted
- Guidelines for hepatitis B vaccination exist, but some doctors do not implement the recommendations; rates of refusal for hepatitis B vaccination of 2-3% were reported, suggesting some levels of ignorance in the general population and/or medical profession
- Concern was expressed at the perspective of viral hepatitis control through an “HIV lens”, although the practice is hard to avoid given its use by WHO and other national and international bodies

Issues and needs

- Strategies for prevention and control are sound but their implementation is not perfect; need for verification and evaluation of implementation of measures/interventions, and improvements in data collection and Assessment. Fragmentation of responses
- Some good examples of intercountry collaboration or learning from the other Baltic countries (e.g. holding blood donation drives in leisure centres) but success in cooperation is not always guaranteed; resources could be shared (e.g. through the creation of a regional laboratory or common outbreak responses). Better collaboration warranted in the field of liver transplantation
- Epidemiological studies including surveillance create a rich mosaic of data, but gaps mean that whole picture is not visible. For HBV and HCV, confusion persists about distinction between “acute” and “chronic” and in about 30% of cases the risk factors (although asked in the interview), are not known or are denied.

Issues and needs (cont'd)

- Significant risks of infections are found in health care settings, indicating the need for improved infection control
- Screening: nation-wide programmes are needed with plans and policies for identifying infected subjects and patients, for care and management of newly diagnosed patients, for setting treatment priorities (e.g. based on degree of fibrosis), and investigation of the possibilities for resistance (HCV treatment)
- More discussion is needed around perinatal transmission of hepatitis B, vaccination schedules, and stopping or rethinking non vaccinated-adolescent at 12 years of age and older
- Introduction of hexavalent vaccines can be combined in the infant schedules with preservation of the neonatal hepatitis B dose; existing vaccination programmes should be evaluated for effectiveness
- In view of the expanding population susceptible to infection with hepatitis A virus it is strongly recommended that the 3 countries consider establishing a joint intervention force or body that can provide advice and vaccination for rapid control and prevention of further spread of the infection

Issues and needs (cont'd)

- Existing costs for treating viral hepatitis are high (most of health insurance fund's expenditure on pharmaceuticals in Lithuania); new direct-acting antivirals will significantly raise those costs
- Issues of intellectual property rights, patents and generics need to be addressed together with finding mechanisms for funding or lowering prices of new DAAs and to identify who should lead investigation into their feasibility (WHO and EASL were suggested)
- There is a paucity of nongovernmental organizations focused on viral hepatitis; the one existing organization in Latvia is unable to sustain its activities despite success in pushing for increased reimbursement
- Language issues: three separate (and uncommon) languages plus Russian (and to a growing extent English) as a common language
- Activities of the anti-vaccine movement

Issues and needs (continued)

- National plans and strategies for viral hepatitis are needed where they do not exist, including policies on screening of pregnant women and people at risk – Latvia has an action plan for 2016-2018 to limit the spread of HIV, STI and hepatitis B and C as part of its Public Health Strategy for 2014-2020, and viral hepatitis is in danger of being lost within Estonia's comprehensive national health plan for 2009-2020
- Also, calls were made for an end to “HIV exceptionalism”, with greater priority for viral hepatitis as a public health issue per se, with specific (earmarked for hepatitis) funding needed, and a stronger focus on aspects of viral hepatitis that are not common to HIV transmission and control. The “HIV lens” needs to be broadened in focus to include education, information, awareness and topics such as re-socialization
- The good news is that hepatitis C is a priority in Latvia, with funding (6.5 million euros) in the State health budget for 2016 (to be discussed on 30 November 2015)

Issues and needs (continued)

- Need for leadership (e.g. Lithuanian President donating blood) and champions of prevention and control of viral hepatitis
- Clinical guidelines are needed or should be updated for treatment and management of people with chronic viral hepatitis – use or adapt existing guidance
- For prevention and control, training standards and handbooks are needed as well as the greater involvement of health professionals at the primary health care level to avoid lost opportunities (e.g. vaccination of PWIDs in primary health care)
- Attention should be paid to joint procurement of new antivirals whether through intercountry cooperation (e.g. a consortium, an are in which VHPB has expertise) to lower prices or work under the European Commission's aegis
- Review of co-payments by patients and reimbursement of treatments for hepatitis C (including consideration of situation of patients for whom interferon treatment already paid for has failed)

Issues and needs (continued)

- Validation of data, including prevalence studies and epidemiological surveillance of cirrhosis and hepatocellular carcinoma rates, data on vaccination coverage rates and evaluation of the impact of interventions and vaccination programmes; also better methods of reaching vulnerable populations and winning trust
- More funding for specific studies on viral hepatitis, from prevalence and incidence rates to prevention and control and engagement of civil society as well as sustainable funding for programmes
 - Need to eliminate the practice of remuneration of blood donors (in Lithuania where higher rates of HBV-, HCV- and HIV-positive remunerated blood donors are found; blood donation is entirely voluntary in Estonia and Latvia) and increase the number of regular donors
- Need to continue work on improving infection control in health care establishments and other facilities such as tattoo parlours; encourage each country to create a national infection control programme using WHO guidelines for such programmes

Issues and needs (continued)

- Actions are needed to induce general practitioners/physicians to implement existing guidelines on vaccination (including clarification of the meaning of “obligatory” in relation to vaccination) and definition of their duties in that regard; need to raise the awareness among physicians and especially general practitioners about the importance of viral hepatitis
- Need to promote hepatitis B vaccination of people at risk (e.g. chronic hepatitis C patients and health care workers) or with high risk behaviours, such as MSM, PWIDs and CSWs, and to promote harm reduction activities – increasing needle-exchange programmes providing low dead-space syringes, promoting condom use, etc
- Greater information efforts to counter the scepticism of the educated classes about the values of vaccination plus general promotion of vaccines
- Encourage establishment of and support for nongovernmental organizations working on promoting prevention and control of viral hepatitis and care and support of patients

Conclusions

- Impressive progress and achievements were reported, especially compared with other parts of the Former Soviet Union; commendable effectiveness of the infant and adolescent immunization programmes in the three countries; also, laudable work and advocacy by a nongovernmental organization, including financial calculations, although focus could have included negotiations on the price of medicines
- Young and enthusiastic researchers and public health specialists
- Well-performing immunization programmes
- Well-designed specific prevention programmes for PWID targeting HIV, better use of these for viral hepatitis (e.g. vaccination)
- Threat exists that financing of the new oral interferon-free medicines cannot be absorbed in health care budgets, and burning issue is equity in access to treatment
- Since hepatitis control is increasingly put under HIV administrative programmes, future hepatitis control should pay attention to aspects of hepatitis that are not common to HIV transmission and control
- Intercountry collaboration needs to be considered, particularly to benefit from lessons learnt elsewhere regarding procurement and participation in EU projects.