

**Viral hepatitis in Europe's Beating Cancer Plan**  
**Prevention and control of viral hepatitis as**  
**cancer prevention opportunities**

*Antwerp*

*27 and 28 March 2025*

# Objectives

To discuss and review the following:

Prevention and control of viral hepatitis-related liver cancer in line with WHO's strategy

Medical and health interventions to prevent and reduce viral hepatitis-related liver cancer; treatment as prevention

Increasing health literacy and health equity

Data collection, sharing and analysis

Identification of resources, funding and international cooperation on cancer prevention initiatives

- Raising awareness and putting viral hepatitis on the European Commission's agenda as a major cause of cancer, specifically in the Europe's Beating Cancer Plan

# Background and context

History: identification of hepatitis viruses, vaccination and treatment – R&D into vaccines and treatments a unique success story with no parallel in medicine

Recognition that hepatitis viruses B, C and D are oncogenic for humans

Several success stories, from the introduction of vaccination in Italy and rapid delivery of positive results and the development of therapies to the elimination and prevention campaigns in Georgia to action and nationwide programme in North Macedonia following the VHPB meeting;

International bodies and programmes most engaged:

- EU4Health programme
- Europe's Beating Cancer Plan (which in the 2003 version omitted liver cancer)
- European Council Recommendation on vaccine-preventable cancers
- European Code against Cancer (the 2014 version made no specific reference to liver cancer; ECAC5 is due to be issued in autumn 2025)
- European Commission's Cancer Inequalities Register
- WHO: Global health-sector strategy to end HIV, viral hepatitis and STIs and Regional action plan for the health-sector response to viral hepatitis in the European Region
- EASL: Clinical practice guidelines (several, and being regularly updated, next one, on hepatitis B, in May 2025)
- Some provide guidance, others ensure resources for real, practical action.

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# Epidemiology and disease burden

- HCC is the sixth leading cause of cancer and third leading cause of liver-related mortality globally; some 62,000 cases a year in Europe. Two thirds of cases are attributable to HBV and HCV. Burden is expected to continue to increase globally with time. Incidence increases with age.
- Burden of chronic disease in Europe: HB 3.2 million (2024) and HC 1.8 million (2022) with many newly detected infections each year; wide variations between and within countries with uneven distributions. High prevalences in vulnerable and marginalized populations (e.g. migrants for HBV and PWIDs for HCV). Many HBV and HCV infections still remain undetected.
- Risk factors for liver cancer include poor access to HB vaccination, limited access to screening, harm reduction and treatment, and social determinants of health such as poverty, living in deprived areas and heavy alcohol consumption.
- Some 10-20 million people in the world are thought to be infected with HDV.
- The goal of elimination of viral hepatitis as a public health threat by 2030 is not expected to be reached in 27 EU countries, and data for proper monitoring are still insufficient. Vaccination, treatment and prevention of MTCT are keys to accelerating progress.

# Screening and surveillance

- Policy – risk-based or universal? Only 20% of EU countries have any policy. Universal screening with immediate treatment has good results and proved to be cost-effective in some countries (e.g. Egypt, France and the USA); France recommends the policy but has not implemented it. WHO recommends prompts to general practitioners to issue reminders.
- The current European Code Against Cancer (ECAC4) does not consider screening for HBV and HCV. It is regularly revised.
- Screening for HBV and HCV infections is part of test and treat strategies.
- Methods for surveillance of cured (HCV) and treated (HBV) patients for early diagnosis of HCC and risk stratification include measuring liver stiffness; questions about frequency, when can it be stopped or is it a lifelong commitment with repeated measurements, decision according to risk category? Several scoring systems using simple markers (including age, sex, viral infection, liver stiffness, platelets and albumin levels have been developed and show utility.
- Surveillance may be intensified if good risk stratification tools are available and accessible.

# Prevention, treatment and care

- Universal vaccination against hepatitis B
- HB vaccination of key populations – more than half the countries in the EU have policies but they are not matched by action on the ground
- Antiviral agents for cure and treatment of HCV and HBV are well developed. Cure of HCV infection with DAAs reduces risk of HCC but does not entirely remove the risk of progression to HCC. AVs suppress viral replication, inflammation and reduce complications. Questions remains about when to start treatment of hepatitis B.
- After HCV treatment, the process and duration of monitoring progression towards HCC, especially after treatment, are still the subject of debate.
- Social determinants of health need consideration for their effects at every stage of progression towards liver cancer but data on their impact are absent. The EASL-Lancet Commission on Liver Health called for more action.
- A pipeline of new drugs for treatment of HDV is said to be in existence and bulevetide is proven to be safe and well tolerated but the impact on HCC incidence is not yet clear.

# Data on liver cancer

- Some good data exist but the landscape is challenging.
- Poor data or poor reporting? Other issues include: poor data collection systems; lack of interoperability and sharing of data; lack of denominators; unwillingness to accept estimates; lack or inaccessibility of historical data.
- Data are collected in cancer (and other) registries and for the monitoring of the burden of disease – different purposes. Ideally, they could be integrated with common systems and shared, with analytical opportunities for the benefit of clinicians and policy-makers.
- Aligning with cancer registries should help derivation of information for politicians and changes in policy.



# Data on liver cancer (contd)

Several organizations presented information on their work:

- European Cancer Organization – work includes seeking alignment on the goal of eliminating vaccine-preventable diseases and tracking inequalities.
- European Cancer Information System – collects comparable data of disease burden across Europe (incidence, mortality and survival)
- European Network of Cancer Registries and the national registry in the Netherlands (an extended data set which includes data on migrants)
- CDA Foundation – economic modelling on viral hepatitis, validated against real data; results show rising HCC burdens
- IARC – studying major causes of liver cancer in Europe, finding concerning increases in many European countries, the USA and Australia despite declines in Asia and Africa
- WHO Regional Office for Europe – supporting Member States to strengthen health systems, assessing disease burden, assessing data collection and increasing quality.

# Barriers to progress

- Limitations to access (treatment and services, including restrictions on treatment), rural location and poor access to tests and testing, poverty, complex diagnostic and treatment algorithms, late diagnosis.
- Linkage to care
- Policies that mandate that testing for HBV and HCV be done by a qualified medical worker
- Stigmatization - reduces the willingness of people to present for care.
- Lessening of political will and commitment to prevention and control of viral hepatitis.
- Lack of information and knowledge (in prisons, but also in general population, with countering of mis-/dis-information and vaccine hesitancy)
- Social determinants of health

# Needs

- Early diagnosis and improved surveillance with new biomarkers and new and affordable techniques for HCC risk stratification
- Recommendation on HBV and HCV screening policy needed; one-time screening in a lifetime is cost-effective and may even be cost-saving as already indicated by studies in some countries.
- Enhancement of monitoring disease progression, with guidance for clinicians, development and validation of new biomarkers for HCC risk stratification, affordable and accessible techniques; health economics studies generally – for instance: What is the cost of retaining the status quo?
- Updated clinical guidelines.
- Increased implementation of WHO's cascade of care – low take up in Europe owing to unavailability of data points.
- Person-centred care, decentralization, task sharing, and community involvement

# Needs (continued)

- Meeting the particular needs of migrants, PWIDs, MSM and other populations that may be politically disfavoured even though they are most affected.
- Improving health literacy and equality in access
- Language – needs to be used inclusively with changed thinking (e.g. “hard to reach services” rather than hard to reach populations).
- Support to countries for improving data collection systems, sharing data, linking databases and access.
- Create a think tank like VHPB that clearly has impact at country level and is raising awareness.

# Issues, opportunities and recommendations

- The perception of HB vaccination as prevention against HCC needs to be more broadly acknowledged.
- Recommendations should include affordable and accessible testing, support for equity, avoidance of stigmatization and discrimination, community focus, political commitment and monitoring of the burden of infection.
- Cost-effectiveness – implications for budgeting and affordability; cost-saving measures sought.
- Cooperation through consortia, with a focus on guidelines for data quality, minimum data sets and improved availability; integration of databases, registries, modelling exercises; harmonization at EU level; development of metadata; aggregated or anonymous data across Europe
- Use of other sources of data such as insurance records, electronic patients reports and health passports with early focus on European solutions
- Above all, definition of what data or information is needed.
- Digitalization and AI (but how fast will regulations follow any solutions so derived?)
- Overcome legislative barriers as in the COVID-19 pandemic by declaring an emergency

# Conclusion

- Burden well known
- Tools for prevention are available
- Guidance is available
- Coordinated action still lags behind
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As a consequence - viral hepatitis must be included in the Europe's Beating Cancer Plan – it is one of the major causes of cancer; the need and opportunities are well known.