

## **The European Association for the Study of the Liver (EASL) Response to the Call for Evidence for the European Commission proposal for a Council Recommendation on vaccine-preventable cancers**

### **Background**

Liver cancer is the sixth most common cancer and the third leading cause of cancer-related deaths globally. Between 1990 and 2015, liver cancer incidence increased by 75% worldwide. Globally, 830,200 people died from liver cancer during 2020. *A main cause of liver cancer is chronic hepatitis B infection (HBV) and Chronic Hepatitis C infection (HCV).* Across the EU/EEA and the United Kingdom, HBV and HCV are responsible for approximately 55% of all liver cancer deaths, 45% of all deaths due to cirrhosis and other chronic liver disease, and overall result in approximately 64 000 deaths annually. If prevention strategies are not promoted, the number of liver cancer cases is expected to grow dramatically by 55% over the next 20 years. This contrasts with other preventable cancers, which are either stable or in decline. Hepatocellular carcinoma (HCC) is preventable if the primary risk factors, such as chronic HBV and HCV infections, are eliminated. For example, chronic HBV infection – which may, over time, progress to liver cancer in 25% of cases – is defined by WHO as vaccine-preventable cancer risk factor, and is recognised as such in the Europe’s Beating Cancer Plan.

Hepatitis B vaccination prevents chronic HBV infections, thereby preventing liver cancer caused by the hepatitis B virus. The hepatitis B vaccine is the world’s first anti-cancer vaccine. It is estimated that it will be able to prevent 38 million deaths over the lifetime of persons born between 2000 and 2030 in 98 low- and middle-income countries. Despite the vaccine being an important tool for hepatitis B prevention, there is suboptimal HBV vaccine coverage across EU/EEA countries. For programmes targeting children as part of the primary schedule, only eleven (50%) out of 23 EU/EEA countries, who reported data, met the WHO goal of achieving 95% vaccination coverage by 2020.

### **Ongoing Challenges**

Many children are missing out on the benefit of hepatitis B vaccination. In many countries HBV vaccination rates are below other routine vaccines. The estimated number of hepatitis B virus infections among children under 5 years in the WHO European Region is: 147,137 (73,568-294,273). Only 50% of EU/EEA countries with universal childhood vaccination have reached the target of 95%

hepatitis B vaccination coverage. Three countries have no national policy for universal new-borns and children vaccination (Denmark, Finland, and Iceland); Sweden only recommends it, and Hungary's policies only target adolescents, not new-borns. Some countries have reported that coverage of the three doses of HBV vaccine has declined since 2019; This may be due to the COVID-19 pandemic and resultant public health measures. Currently, one third of all EU/EEA countries have no action plan and nearly half reported a lack of funding for implementation.

Risk groups are not consistently recommended or vaccinated across Europe. Some countries only implemented childhood programs within the last 5 to 10 years leaving key adult populations vulnerable, with sub-optimal levels of coverage, and at risk of infection. Several gaps in local coverage policies exist for key populations with high burden of HBV infection. HBV vaccination among healthcare workers is heterogeneous with coverage rates among European Region countries ranging from 15% to 100%. In high-risk populations such as persons who inject drugs (PWID), the data reported are available for 17 countries, only five of them reported vaccine coverage rates ranging from 26% to 84%. Half of the men who have sex with men (MSM) had been vaccinated against hepatitis B. However, 26% were not vaccinated and did not know where to get hepatitis B vaccine. In addition, a further 17% did not know that hepatitis b vaccine was available. Migrants from countries where the prevalence of hepatitis B infection is high are usually not vaccinated against the virus in their country of origin. In Europe, the burden of infection among migrants in relation to the overall number of HBV infection cases is estimated to be around 25%. Mother to child transmission and sexual transmission are ways of HBV transmission. Given the prevalence of ongoing transmission and HBV infection in high-risk adult population groups, vaccination needs to improve for pregnant women, MSM, PWID, prisoners, and migrant populations, healthcare workers, diabetics, people on haemodialysis, and people with chronic liver disease. The EASL-Lancet Commission recommends that all European countries implement universal childhood HBV vaccination and monitor its compliance, particularly in neonates of marginalised populations, migrants, refugees, and asylum seekers.

## **Policy Action plan**

To fulfil the goal of eliminating vaccine preventable cancers, a European Council Recommendation on HBV vaccine-preventable cancer is needed in order to facilitate the implementation of HBV

vaccination. The actions that should be prioritised, regarding improving access to and uptake of hepatitis B vaccine, are the following:

### **European Commission level to invest additional EU level funding**

- To promote with healthcare policy makers, and the general public, the use of HBV vaccination as an effective and safe strategy to prevent and control chronic liver disease and liver cancer.
- To prioritise and facilitate access to HBV vaccination which guarantee viral elimination and prevent liver cancer development
- To treat all HCV-infected populations – especially unreported categories - which guarantee viral elimination and prevent chronic liver disease and liver cancer development
- To improve health literacy by implementing strategic communication programmes for HBV cancer prevention in order to raise awareness among general and key populations. (Regarding HBV vaccination and HCV treatment as prevention)

### **EU Member States should prioritise the following actions:**

1. Upscale HBV vaccination rates, by encouraging Member States to put implement stronger national strategies and to update National Cancer Control Plans with HBV vaccination included in routine vaccination schedules.
2. Maximise efforts to increase coverage of HBV vaccination for new-borns and children, especially given the concerning declines in vaccine coverage observed in some countries in recent years.
3. Provide free HBV vaccination policies including coverage of key adult populations, including migrants, PWID, people in prisons, people living with HIV, MSM, and healthcare workers addressing the inequities in access.
4. Develop and provide adequate funding for specific hepatitis B action plans to improve infrastructures and ensure increase of vaccination uptake rates in high-risk and underserved populations
5. Invest in outreach health services following effective practices for addressing vaccine hesitancy in those not responding to vaccination invitations
6. Raise awareness through comprehensive hepatitis B information and vaccination campaigns within high-risk populations, addressing for disparities.

7. Strengthen work on monitoring and standardising data collection, with the development of key indicators for which data can be easily collected to track progress of new actions implemented regarding the HBV vaccination coverage at national level across EU Member States.
8. Implement HCV screening and HCV treatment as prevention.

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