Dear Dr Stepanov,

**Study on the fraction of cirrhosis and hepatocellular carcinoma attributable to viral hepatitis**

The World Health Organization (WHO) Country Office in Ukraine presents its compliments to the Ministry of Health of Ukraine and you personally.

During March–October 2020, the WHO Country Office in Ukraine, the WHO Regional Office for Europe and the Public Health Center of the Ministry of Health of Ukraine collaborated in the study on the fraction of cirrhosis and hepatocellular carcinoma attributable to viral hepatitis to assess the burden of hepatitis B and C in Ukraine, as specified in National Strategy on HIV, TB and viral hepatitis until 2030.

This technical collaboration also attends to the recommendations in the WHO Assessment of the Viral Hepatitis Response in Ukraine in 2017, and objectives adopted in the Action Plan for the Health Sector Response to Viral Hepatitis in the WHO European Region and Global Health Sector Strategy on Viral Hepatitis.

The study included retrospective review of demographic and health data of patients diagnosed with cirrhosis or hepatocellular carcinoma (HCC) from October 2017 to October 2019, in three selected clinical centres specialized in oncology and transplantology.

The study followed the WHO recommended methodology for improved assessment of viral hepatitis-related mortality published in the WHO Consolidated strategic information guidelines for viral hepatitis (2018). The WHO Country Office in Ukraine liaised with appointed specialists and research investigators in Ukraine to improve the data collection and analysis.

The initial results of the study are provided:

1. Out of a total of 244 cases of cirrhosis and HCC registered during the study period, 71 (29%) patients had incomplete or no testing for hepatitis B and C, despite efforts to improve access to viral hepatitis testing in the country.
2. Among patients diagnosed with cirrhosis and tested for hepatitis B and C, 12/97 (12.4%) had hepatitis B and 22/98 (22.4%) had hepatitis C.

3. Among patients diagnosed with HCC and tested for hepatitis B and C, 16/87 (18.4%) had hepatitis B and 37/77 (48%) had hepatitis C.

4. A total of 37 patients in the retrospective study cohort died during the period. More than half of these deaths happened within six months after the initial diagnosis of cirrhosis and/or HCC, highlighting the importance of timely diagnosis and treatment of severe liver disease.

5. When the percentages found in the study are applied to annual mortality figures due to cirrhosis and HCC reported country-wide:

6. Hepatitis B and C are implicated in 34.8% of deaths due to cirrhosis, resulting in an estimated loss of at least 3 840 lives every year.

7. Hepatitis B and C are implicated in 66.4% of deaths due to HCC, resulting in at least 1 497 lives lost every year.

These findings raise significant concerns for sequelae and mortality attributable to hepatitis B and C in Ukraine, highlighting their importance to public health, and the need to improve disease surveillance, awareness and prevention, diagnosis and access to treatment.

This study can assist the monitoring and evaluation of the National Strategy on HIV, TB and viral hepatitis until 2030. We look forward to continuing to work in future developments for the study with the medical facilities and the Ministry of Health of Ukraine.

The World Health Organization Country Office in Ukraine avails itself of the opportunity to renew to you the assurances of its highest consideration and thank you for the collaboration in the best interests of the health of Ukrainian people.

Sincerely yours,

[Signature]

Dr Jarno Habicht
WHO Representative and Head of the WHO Country Office in Ukraine

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