WORLD HEPATITIS DAY: A TIMELY REMINDER OF THE CHALLENGES AHEAD

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Following on the heels of World Hepatitis Day on 19 May 2008, this week's issue of *Eurosurveillance* is a special issue on viral hepatitis, highlighting the various aspects and challenges related to hepatitis B and C. World Hepatitis Day was launched in 2007 to increase awareness and political commitment to tackling the significant problems viral hepatitis B and C pose to public health and to call for more control and prevention activities. In particular, chronic hepatitis B and C infections are a significant threat to public health, and are considered to be the leading causes of liver cancer worldwide. Hepatitis B and C occur with a very high burden of disease.

In hepatitis B, acute illness can have mild to severe symptoms. The majority of severe sequelae occur in patients who are chronically infected with hepatitis B virus (HBV); a significant proportion develop liver cirrhosis or hepatocellular carcinoma. Moreover, those chronically infected serve as a reservoir for continuing HBV transmission. In hepatitis C, up to 90% of cases are asymptomatic and are detected most often in active screening settings or coincidentally in a routine check-up. The evidence suggests that high proportions (possibly as much as 50-80%) of those infected with hepatitis C virus (HCV) could go on to develop a chronic infection state, and a further proportion of these (possibly up to 70% of chronic infections) may eventually develop liver cirrhosis or cancer.

HBV is transmitted by percutaneous or mucosal contact with infectious blood or other body fluids (serum, semen, saliva). For infants and children, the main sources are perinatal transmission from infected mothers and horizontal transmission from infected household contacts. Adolescents and adults are mostly infected through sexual activity, sharing needles in case of injecting drug use (IDU), or accidental needle stick injuries in healthcare settings. Today, transmission via blood transfusion and use of plasma-derived products is rare. HCV is also transmitted by infectious blood; the risk of perinatal transmission is estimated between 5-15%, and sexual transmission is infrequent. Since 1994, transmission via blood transfusion and the use of plasma-derived products has been rare, as routine HCV tests have become widely available.

In the European Union (EU), the most common mode of transmission for hepatitis B seems to be sexual transmission, and for hepatitis C injecting drug use. Statistics and the epidemiology are difficult to interpret and may be biased due to the lack of reliable and comparable data for hepatitis B and C. In addition, the number of infections in immigrants from high-endemic countries contributes to a changing epidemiology, as suggested in the paper by Rantala and Van de Laar in this issue. To reduce the numbers of new hepatitis C cases, preventing infections in IDUs is a priority in the EU, notwithstanding the relative decrease during the last decade due to the impact of "new" drugs consumption. This is highlighted in the papers by Dubois-Arber et al on results from a behavioural

surveillance system in Switzerland, the paper by Duberg et al on the on-going epidemic of HCV in IDU in Sweden, and the article by Wiessing et al analysing the outputs from the European Monitoring Centre for Drugs and Drug Addiction. However, it is important to bear in mind that the number of undiagnosed HCV infections is probably high; varies across countries; and may reflect the intensity of screening activities rather than true incidence of infection.

The facts stated above highlight the importance of preventive measures. Hepatitis B is a vaccine-preventable disease and vaccination is currently the most effective way to prevent HBV infection apart from education regarding infection. No vaccine has yet been developed for hepatitis C, because of the large and frequent genetic variation. Screening and testing of blood and organ donors, virus inactivation of plasma-derived products, good infection control, strong education programmes and injection safety practices in healthcare settings are currently the most effective preventive measures for hepatitis C, but also apply for hepatitis B to reduce the individual risk of transmission. Deeper knowledge of acute HCV infections is still lacking. Irving et al are of the opinion that the "failure to address acute transmission of HCV infection will undermine long-term attempts to reduce HCV-associated disease burden". Moreover, spending more resources in this direction would also allow the identification of iatrogenic and nosocomial infections, which are still occurring and are largely unrecognised. A coordinated multi-level approach is a priority, as underlined by Goldberg et al in their report on the launch of the Scottish Hepatitis C Action Plan.

There are some treatment options for both HBV and HCV, so that in certain cases the disease outcome could be improved. Access to treatment is limited in many EU countries. Upscaling treatment services to prevent progression to severe liver disease requires substantial resources, which may not be available in many EU countries.

An important basis for effective prevention and control measures is a good and reliable analysis of the epidemiological situation. However, reliable epidemiological data on hepatitis B and C in the EU are not available. EU-wide surveillance of hepatitis B and C is urgently needed to gain a better understanding of its changing transmission patterns and to identify the most effective ways to contain the disease. The harmonisation and strengthening of EU-wide surveillance is a priority, as reported by Rantala and van de Laar in their review of European systems. Considering the wide heterogeneity in surveillance systems, data sources and healthcare systems in EU Member States, this will be a major challenge for the coming years.

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