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The Viral Hepatitis Prevention Board (VHPB) supports the continued recommendation for universal hepatitis B vaccination of all newborns within 24 hours of birth

Pierre Van Damme, Greet Hendrickx, Sakshi Jindal, Sara Valckx, Alex Vorsters, Silvia Bino, Paolo Bonanni, Maria Buti, Stéphane Chevaliez, Sandra Dudareva, Angela Domínguez, Ivana Dragojević, Sharon Hutchinson, Wolfgang Jilg, Mark Kane, Mira Kojouharova, Daniel Lavanchy, David FitzSimons, Sema Mandal, Rui Tato Marinho, Mojca Matičič, Vana Papaevangelou, Tatjana Reić, Françoise Roudot-Thoraval, Daniel Shouval, Thomas Vanwolleghem & John W. Ward

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EDITORIAL

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The Viral Hepatitis Prevention Board (VHPB) supports the continued recommendation for universal hepatitis B vaccination of all newborns within 24 hours of birth

In this Editorial, the Viral Hepatitis Prevention Board (VHPB) expresses its strong support for the continued recommendation for universal hepatitis B vaccination of all newborns within 24 hours of birth, followed by completion of the three dose vaccine series. This policy is essential to sustain the progress made toward eliminating hepatitis B virus (HBV) infection and its devastating health consequences.[1]

For more than three decades, the VHPB has promoted evidence-based policies and strategies for hepatitis B prevention and control across Europe with global outreach. Since its establishment in 1992, the Board has collaborated with national immunization programs, health authorities, and international partners to strengthen hepatitis B vaccination policies and improve coverage, particularly for newborns and infants, who are the persons at the highest risk of developing chronic HBV infection and a one-in-four risk of premature mortality from HBV-related liver disease and liver cancer in later life.[2–8]

The scientific and public health evidence supporting universal hepatitis B birth dose vaccination is unequivocal.[7,9] Infants born to hepatitis B positive mothers have a 25–90% risk of acquiring the infection at birth, depending on the maternal HBV DNA level.[1,7,10,11] Of newborns infected with HBV, 80%-90% become chronically infected with the virus. Universal newborn vaccination prevents HBV infection along with HBV-related morbidity and mortality.[7] Hepatitis B vaccine is the world's first vaccine to prevent an infection that can lead to cancer. Globally, primary liver cancer, which is often caused by chronic HBV infection, is the third leading cause of cancer-related deaths.

Timely administration of the hepatitis B birth dose within 24 hours for exposed newborns is key to prevention. As the child has already become exposed to the virus, the vaccine must be immediately delivered to the newborn to rapidly develop antibodies to prevent HBV infection. A delay in the hepatitis B birth dose by a day or more weakens protection needlessly increasing the risk of HBV infection, chronic incurable disease and premature mortality for exposed newborns.[12]

Experience from the United States, Europe and around the world demonstrates that selective vaccination strategies alone, such as screening all pregnant women and vaccinating (at birth) only newborns of hepatitis B-positive mothers, are insufficient to prevent perinatal and early childhood HBV infection.[13–18] While antenatal HBV screening can help identify pregnant women living with HBV and guide newborn vaccination, it is not consistently implemented, and test results are not always available at the time of delivery.[17,19,20] In addition, there are access issues to such screening programs (including health literacy, health insurance coverage, and financial barriers, among others).[21,22]

In the European Union/European Economic Area (EU/EEA), all countries report implementation of universal antenatal HBV screening. However, only 12 of 30 currently meet the WHO 2025 interim target of 90% coverage of antenatal screening or have data on it.[23]

Both the EU and the United States have a higher burden of hepatitis B among at-risk populations where routine HBV screening for pregnant women is not always accessible.[24,25] These system gaps that threaten access to prenatal care highlight the importance of maintaining a universal birth dose of hepatitis B vaccine as the safety net that protects every child, regardless of maternal screening status or healthcare setting. For these reasons, countries like Australia and Canada have provided the evidence supporting the move from selective to universal hepatitis B birth dose implementation.[26,27]

The safety and effectiveness of the hepatitis B vaccine offered at birth have been confirmed through decades of research, continuous pharmacovigilance, and billions of doses administered globally. The vaccine has an excellent safety profile, with rare adverse reactions and overwhelming evidence of benefit

in preventing infection, cirrhosis, and liver cancer.[7,28–32] Besides its proven effectiveness, there is important evidence from modeling that birth dose and infant HBV vaccination can be not only cost-effective but even cost-saving, providing value for money.[27] For decades the ACIP's transparent, evidence-based decision-making process has contributed to the remarkable success of hepatitis B prevention in the United States. Revising or weakening the universal newborn vaccination policy could risk reversing decades of progress and expose new generations to preventable infection and disease including cancer.

In summary, the Viral Hepatitis Prevention Board urges ACIP to maintain its current recommendation for universal hepatitis B birth dose vaccination of newborns as a cornerstone of hepatitis B elimination. Sustaining this recommendation ensures that the United States continues to lead by example in protecting the health of children and preventing hepatitis B – related disease and death.

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Pierre Van Damme
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
pierre.vandamme@uantwerpen.be

Greet Hendrickx, Sakshi Jindal, Sara Valckx, Alex Vorsters and Silvia Bino
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium

Paolo Bonanni
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
University of Florence, Florence, Italy
http://orcid.org/0000-0003-2875-3744

Maria Buti
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
Hospital Universitario Valle Hebron, Barcelona, Spain
http://orcid.org/0000-0002-0732-3078

Stéphane Chevaliez
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium

Sandra Dudareva
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
Rīga Stradiņš University, Rīga, Latvia

Angela Domínguez
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
Universitat de Barcelona, Barcelona, Spain
CIBER de epidemiología y Salud Pública (CIBERESP), Madrid, Spain

Ivana Dragojević
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
European Liver Patients' Association (ELPA), Brussels, Belgium

Sharon Hutchinson
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
Glasgow Caledonian University, Glasgow, UK

Wolfgang Jilg
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
University of Regensburg, Regensburg, Germany

Mark Kane, Mira Kojouharova, Daniel Lavanchy, David FitzSimons, Sema Mandal, Rui Tato Marinho and Mojca Matičič
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium

Vana Papaevangelou
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
National and Kapodistrian University of Athens, Athens, Greece

Tatjana Reić and Françoise Roudot-Thoraval
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium

Daniel Shouval
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
Hadassah-Hebrew University Medical Center, Jerusalem, Israel

Thomas Vanwolleghem
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
University Hospital Antwerp, Antwerp, Belgium
University of Antwerp, Antwerp, Belgium

John W. Ward
Viral Hepatitis Prevention Board (VHPB), Centre for Evaluation of Vaccination (CEV), University of Antwerp, Antwerp, Belgium
Coalition for Global Hepatitis Elimination, Task Force for Global Health, Decatur, GA, USA