Hepatitis A and E: Update on Prevention and Epidemiology

Viral Hepatitis Prevention Board
Antwerp, Belgium,
March 12-13, 2009
The Viral Hepatitis Prevention Board

17 years of support to the control and prevention of viral hepatitis in Europe.
Content

• Viral Hepatitis Prevention Board (VHPB)
• VHPB activities
• Hepatitis B control in Europe
Viral Hepatitis Prevention Board

- The objective of VHPB is to contribute to the control and prevention of viral hepatitis
  - by drawing the attention to this important public health problem
  - by issuing prevention guidelines
  - and by encouraging actions to improve control and prevention.
- VHPB focus audiences are, in first instance, opinion leaders, policymakers, and health care professionals.
Viral Hepatitis Prevention Board

- VHPB was established in 1992. First actions related to hepatitis B as an occupational risk.
- World Health Assembly sets in 1992 Hepatitis B Vaccination targets on the integration of hepatitis B vaccine into national childhood vaccination programmes.
- In 1993, VHPB started a second major initiative and focused on hepatitis B as a community health risk.
- The geographical focus was initially Western Europe, its actions are extended to include all 53 countries in the WHO/EURO
Support and Grants

- **VHPB secretariat**
  - based at the Center for the Evaluation of Vaccination (CEV) of the University of Antwerpen
  - CEV is designated as a WHOCC for control and prevention of viral hepatitis
  - infrastructure and administrative services of the University

- **supported by**
  - unrestricted grants from the vaccine industry GlaxoSmithKline Biologicals, Sanofi Pasteur MSD, Sanofi Pasteur and Merck
  - several universities and other institutions in Europe
  - GAVI fund and the CVP at PATH in the past for its activities in CEE and NIS.

- **strict operational and scientific independence is essential**
  - VHPB advisers and invited experts get only travel and subsistence reimbursed
  - according to the University Rules
  - no honorary or other forms of remuneration
Viral Hepatitis Prevention Board

- members
  - CDC, WHO/HQ, WHO/EURO, ECDC, MOH, University experts

- network of experts
Viral Hepatitis Prevention Board

- Meetings
  - 2 - 3 meetings/year (technical – country)
- *Viral Hepatitis* Newsletter
  - 2 issues/year
  - mailing to ± 4000 readers
- Web site
- Scientific publications
- Participation at Scientific Meetings
Editorial

This issue of Viral Hepatitis reviews the topics covered at the Viral Hepatitis Prevention Board (VHPB) autumn meeting held on November 17-18, 2005 in Edinburgh, United Kingdom (UK). The aim of the meeting was to review the current UK practice relating to the control of viral hepatitis. Health policy, healthcare delivery, decision-making, research, and funding in England, Wales, Scotland, and Northern Ireland were examined, in particular with regards to their implementation at national level. An update on the epidemiological situation of hepatitis A, hepatitis B, and hepatitis C in the UK was provided. Specific aspects of viral hepatitis were discussed, including virological and clinical aspects, control measures, public health perspectives, and economic evaluations. Preventive national and regional strategies for the control of viral hepatitis in the UK were then presented and assessed, including testing, vaccination, and treatment options. The meeting was concluded with lessons learnt from the UK experience and future challenges to be met.

Control of viral hepatitis in the UK - achievements and challenges

With regards to the decision-making process ensuring prevention of viral hepatitis, the need for a continuous evaluation of the current risk-group vaccination policy, to be compared with results obtained with alternative strategies, such as universal vaccination programmes, in other comparable countries of the European Union. The need to carefully monitor such alternative strategies implemented at the regional level in the UK was recognised. The need to target specific groups, such as immigrant populations, in preventive programmes and treatment was also identified.

In terms of chronic disease management, discussions focused on the need for national strategy and action plan in the case of hepatitis B while the establishment of Managed Clinical Networks (MCNs) should be ensured in the case of hepatitis C.

The control of viral hepatitis in the United Kingdom was also seen to be lacking a reliable surveillance system, based on standard laboratory reporting and case notifications. The need for enhanced epidemiological data was mentioned in or-
Viral Hepatitis Prevention Board

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  - 2 - 3 meetings/year
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  - mailing to ± 4000 readers
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- Participation at Scientific Meetings
- Web site
Web site www.vhpb.org

- Overview of the VHPB
- Show all previous recommendations, guidelines and consensus statements
- All Viral Hepatitis issues as of 1996 can be downloaded
- Presentations of VHPB meetings are on-line since 2001 (>366 presentations of in total >416 documents)

The Global Advisory Committee on Vaccine Safety (GACVS) considers that the findings from this study do not provide convincing evidence that HB vaccination, or use of any brand of HB vaccine, is associated with an increased risk of MS or of an episode of acute CNS inflammatory demyelination. More on the WHO/GACVS web site.

The Agence Française de Sécurité Sanitaire des Produits de Santé (AFSSAPS) has issued a press release stating that the main and major result of this study does not reveal any association between vaccination against hepatitis B and the risk of MS. The National Advisory Board of Pharmacovigilance also pointed to shortcomings in the study and considers that the results of the analysis of the sub-group of children having followed the vaccine recommendations are deemed to be fortuitous. The French Ministry of Health and the High Council of Public Health (HCSP) share this opinion and recommend continuation of the current vaccination policy and reinforcement of the current low vaccination coverage. Full text of this advice (in French) on the HCSP web site.

Endorsement of world hepatitis day 19 May 2008.

The Viral Hepatitis Prevention Board, working to increase awareness of viral hepatitis since 1992, fully endorses the world hepatitis day 2008. There is a clear lack of attention towards prevention and control of viral hepatitis. Major gaps exist towards surveillance of acute cases and data on chronic viral hepatitis is almost non-existing. Although on the level of primary prevention of hepatitis B infection significant achievements can be reported, in 2008 154 of 193 WHO member states had introduced universal vaccination, a lot still needs to be done. The benefit of vaccination against hepatitis B is sometimes perceived as limited, leading to rejection of vaccination. Awareness of the real disease menace is crucial and the value of protection against infection needs continuous promotion. Young chronic hepatitis B patients are testimonies of the breaches in the current prevention programmes. We hope that this patient driven initiative will have a major global impact on the general awareness of Viral Hepatitis and will increase the political commitment to prevent and control viral hepatitis infection and its consequences.
Meetings and Recommendations

The VHPB has already covered a broad range of control and prevention strategies for all forms of hepatitis

- Surveillance
- Universal Immunisation programs
- Injection safety and safe blood supply
- HBV mutants and variants
- Prevention and control of viral hepatitis in migrants and refugees
- Behavioural issues in hepatitis B vaccination
- How to reach risk groups
- Combined vaccines
- Economic evaluations
- Hepatitis B vaccination safety issues
- Hepatitis B vaccine and long term efficacy
- Hepatitis infections in health care workers
- Perinatal transmission
- Adolescent programmes
- Patient and advocacy groups
Support to the Introduction of hepatitis B vaccination in Europe

• Prevention and control of hepatitis B in Central and Eastern Europe and the Newly Independent States. (Siofock, Hungary, 1996)

• Control of hepatitis B in Europe: Where are we in 1997 (Madrid Spain, Nov 1997) (Vaccine 16 (1998) S11-S16)

• Strengthening immunisation systems and introduction of hepatitis B vaccine in Central and Eastern Europe and the Newly Independent States. (St Petersburg, Russian Federation, 2001)

• Strengthening immunisation systems and introduction of hepatitis B vaccine in Central and Eastern Europe and the Newly Independent States. (Kiev, Ukrain, 2004)
REVIEW

Hepatitis A and B vaccination and public health

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SUMMARY. The introduction and implementation of hepatitis B vaccination programmes in areas of high endemicity has been very stressful. However, this initial accomplishment has led to the reassessment of priorities in some countries which could undermine these early successes. Work still remains to be done to support and implement interventions that will bring us closer to the WHO goal and to the control of hepatitis B in the community at large. Hepatitis A vaccine strategy for immunizing toddlers is shifting to those countries with intermediate endemicity where increasing morbidity in adults is being observed. Accumulating evidence indicates that such programmes can result in impressive reductions in the incidence of hepatitis A by herd immunity. Monitoring of these populations to determine durability of protection will be important to avoid shifting the infection to the older age population, when symptoms are more likely to occur. National policies need to consider hepatitis A vaccination in the context of other public health priorities.

Keywords: epidemiology, hepatitis A vaccine, hepatitis B vaccine, vaccine prevention.

INTRODUCTION

Hepatitis B immunization for infants and preschool children, even in low endemicity countries.
Has the time come to control hepatitis A globally? Matching prevention to the changing epidemiology

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SUMMARY. For the first time a global meeting on hepatitis A virus (HAV) infection as vaccine preventable disease was organized at the end of 2007. More than 200 experts from 46 countries gathered to investigate the changing global HAV epidemiology reflecting the increasing numbers of persons at risk for severe clinical disease and mortality from HAV infection. The benefits of childhood and adult hepatitis A (HepA) vaccination strategies and the data needed by individual countries and international health organizations to assess current HepA prevention strategies were discussed. New approaches in preventing HAV infection including universal HepA vaccination were considered. This introductory paper summarizes the major findings of the meeting and describes the changing epidemiology of HAV infections and the impact of HepA vaccination strategies in various countries. Implementation of HepA vaccination strategies should take into account the level of endemicity, the level of the socio-economic development and sanitation, and the risk of outbreaks. A stepwise strategy for introduction of HepA universal immunisation of children was recommended. This strategy should be based on accurate surveillance of cases and qualitative documentation of outbreaks and their control, secure political support on the basis of high-quality results, and comprehensive cost-effectiveness studies. The recognition of the need for increased global attention towards HepA prevention is an important outcome of this meeting.

Keywords: Global hepatitis A meeting, hepatitis A, hepatitis A vaccination, infectious disease control, public health, surveillance.
Benefits of Early Hepatitis B Immunization Programs for Newborns and Infants

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Abstract: Despite the availability of safe and effective hepatitis B virus (HBV) vaccines for >20 years, strategies targeting risk groups failed to sufficiently control hepatitis B disease at the population level; this is mainly because of difficulties in risk identification and in program implementation. Hence, the global burden of disease of HBV still is substantial.

The World Health Organization recommends universal vaccination against hepatitis B to ultimately eliminate HBV; this recommendation had been progressively implemented to reach 168 countries with a universal program by the end of 2006. However, hepatitis B immunization is currently becoming endangered of losing its place on the agendas of governments, agencies, and international organizations, mainly because of the increasing success of these immunization programs and the interest in newer vaccine-preventable diseases and the related programs.

This publication aims to show that vaccination programs targeting newborns and infants are preferable to achieve this goal. The benefits of universal HBV vaccination for newborns and infants are: higher impact on chronic carrier rate and transmission; established potential of high vaccine coverage in this age group; opportunities to combine HBV vaccination with existing universal vaccination programs for newborns and infants; and impact on perinatal transmission, if vaccination is started shortly after birth. Moreover, the safety, immunogenicity, and long-term efficacy of newborn and infant HBV vaccination

Key Words: universal immunization, vaccination programs, hepatitis B vaccination, public health

(Pediatr Infect Dis J 2008;27: 861–869)

The success of vaccination programs so far and the interest in other vaccine-preventable diseases have led to hepatitis B virus (HBV) vaccine becoming endangered of losing its place on the agenda of governments, agencies, and international organizations, a topic recently discussed at the Viral Hepatitis Prevention Board meeting in Istanbul, Turkey.1 Some agencies are downgrading HBV vaccination and have become reluctant to divert resources to HBV immunization programs,1 while clearly, the burden of HBV disease, compared with vaccine-preventable childhood diseases, is still substantial even in countries with low HBV endemicity.2–8 HBV infection continues to be a serious global health problem, with 2 billion people infected worldwide, and 350 million suffering from chronic HBV infection.9

On the basis of HBV epidemiologic data, a mathematical model was developed to estimate the global hepatitis B disease burden and vaccination impact.10 During the lifetime of the year 2000 worldwide birth cohort, the model estimates that without vaccination there would be 64,766,000 HBV infections; 9,733,000 chronic infections; and 1,405,000 HBV-related...
Country meetings

- Italy 2002
- Germany and the Nordic Countries 2003
- France 2004
- UK 2005
- Spain 2006
- Greece 2007
- The Netherlands 2008
- Turkey 2009
Hepatitis A and E: Update on Prevention and Epidemiology.
Objectives of the meeting

**Hepatitis A**

- Provide a feedback of the Miami meeting: “Has the time come to control Hepatitis A globally” December 2007
- Discuss the lessons learned for Western-Europe and WHO European region
- Provide recent information on Hepatitis A epidemiology and prevention.
- Discuss future initiatives and HAV related topics
Objectives of the meeting

**Hepatitis E**
- Give an overview of the virology of HEV
- Review the disease and its worldwide epidemiology
- Explain the zoonotic transmission of HEV
- Assess HEV emergence in non-endemic/endemic countries
- Discuss the vaccine against HEV its future