Hepatitis B vaccines

What are the questions for SAGE today?

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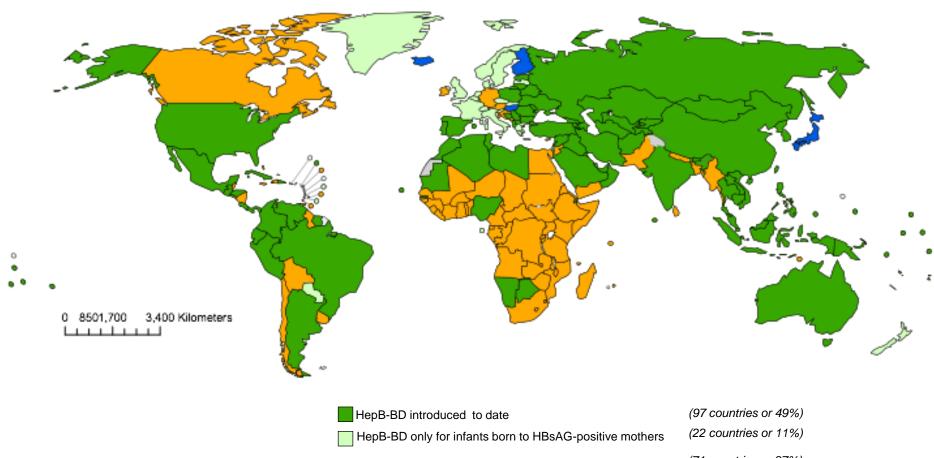
Background

Birth dose recommendation

Since perinatal or early postnatal transmission is an important cause of chronic infections globally, the first dose of hepatitis B vaccine should be given as soon as possible (<24 hours) after birth even in low-endemicity countries.

WHO Position paper 2009

Countries with Hepatitis B Birth dose (HepB-BD) vaccine in the national immunization programme



HepB in schedule but no HepB-BD

HepB given only for risk groups or adolescents

Data source: WHO/IVB Database as at 05 September 2016 and ECDC published data at http://vaccine-schedule.ecdc.europa.eu/Pages/Scheduler.aspx

194 WHO Member States

Map production Immunization Vaccines and Biologicals (IVB), World Health Organization

Date of slide: 05 September 2016

Not applicable

Not available

(71 countries or 37%)

(4 countries or 2%)

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PROCESS

Ad hoc Expert Consultations (June 2013, March 2014, Sept 2015, Sep 2016)

Review of methods and mathematical models (IVIR-AC June 2013, Sept 2014)

Report to SAGE (Oct 2016)

Sources of evidence

1. Systematic reviews on:

- Safety and efficacy from randomized controlled trials and observational studies of childhood schedules using hepatitis B vaccines. (Soares K 2016)
- Seroprotection after recombinant Hep B vaccination among newborn infants. (Schillie 2013)
- Effectiveness of vaccination strategies against hepatitis B in people with HIV.
 (Wakefield 2014)
- Long-term Immune responses to vaccination in HIV-Infected patients. (Kernéis 2014)
- Long term protection provided by hepatitis B vaccine and need for booster dose: a meta-analysis. (Poorojalal 2010)
- Global compliance with hepatitis B vaccine birth dose and factors related to timely schedule. (de la Hoz 2016)
- Antiviral therapy in chronic hepatitis B viral infection during pregnancy: a systematic review and meta-analysis. (Brown 2016)
- Update of the estimations of worldwide prevalence of chronic hepatitis B virus infection. (Schweitzer 2015, de la Hoz 2016)
- Economic evaluation of Hep B vaccine impact in LMICs. (Chiyakunapruk 2016)
- Monovalent hepatitis B vaccine thermostability. (Gessner 2016)

Sources of evidence

2. Descriptive reviews:

- Long term impact of Hep B vaccination programmes on Hepatitis B epidemiology.
- Annual incidence and mortality of cirrhosis among persons with chronic HBV infection. (CDC 2015)

3. Review of routine information system.

WHO databases on vaccine introduction.

4. Survey to WHO regional offices

Identification of barriers for introduction of birth dose.

5. Model estimates

- Worldwide HBsAg prevalence.(Edmunds 2016)
- Global HBV vaccine impact. (Edmunds 2016)
- Global burden of HBV-attributable liver cancer. (Plummer 2016)

Today's questions

- 1. Does the emerging evidence suggest the need to adjust current HBV recommendations?
- 2. What is the impact HBV vaccination programme on HBV epidemiology?
- 3. Does the available evidence support flexibility in the requirement for cold chain storage of Hepatitis B monovalent vaccines in order to expand the delivery of the birth dose?