



Meeting report

WHO position paper on hepatitis A vaccines: June 2012—Recommendations

A B S T R A C T

This article presents the World Health Organizations (WHO) recommendations on the use of hepatitis A vaccine excerpted from the WHO position paper on hepatitis A vaccines – June 2012 recently published in the *Weekly Epidemiological Record* [1]. The current document replaces the position paper on the use of hepatitis A vaccines published in 2000 [2] and incorporates the most recent developments in the field with particular consideration to changes in the epidemiological features of hepatitis A infection in several countries, increased supply of hepatitis A vaccines, and new evidence on their public health benefits.

Footnotes to this paper provide a number of core references including references to grading tables that assess the quality of scientific evidence for a few key conclusions.

In accordance with its mandate to provide guidance to Member States on health policy matters, WHO issues a series of regularly updated position papers on vaccines and combinations of vaccines against diseases that have an international public health impact. These papers are concerned primarily with the use of vaccines in large-scale immunization programmes; they summarize essential background information on diseases and vaccines, and conclude with WHO's current position on the use of vaccines in the global context. This paper reflects the recommendations of WHO's Strategic Advisory Group of Experts (SAGE) on immunization. These recommendations were discussed by SAGE at its November 2011 and April 2012 meetings. Evidence presented at these meetings can be accessed at <http://www.who.int/immunization/sage/previous/en/index.html>.

Both inactivated and live attenuated hepatitis A vaccines are highly immunogenic and immunization will generate long-lasting, possibly life-long, protection against hepatitis A in children as well as in adults.

Evidence testifies to the excellent safety profile of inactivated vaccines. Although considered safe, internationally published evidence on the safety and tolerability of the live attenuated hepatitis A vaccines is more limited.

WHO recommends that vaccination against HAV be integrated into the national immunization schedule for children aged ≥ 1 year if indicated on the basis of incidence of acute hepatitis A, change in the endemicity from high to intermediate, and consideration of cost-effectiveness.

Vaccination against hepatitis A should be part of a comprehensive plan for the prevention and control of viral hepatitis, including measures to improve hygiene and sanitation and measures for outbreak control.

Countries should collect and review the information needed to estimate their national burden of hepatitis A. In addition to surveys estimating age-specific prevalence of anti HAV IgG antibodies, this may require examining vital registration systems, acute disease surveillance, and health information systems capturing fulminant hepatic failure cases and/or causes of liver transplantation. Economic evaluation, including cost-effectiveness analyses of relevant immunization strategies can serve as a useful additional element for decision-making.

In highly endemic countries almost all persons are asymptotically infected with HAV in childhood, which effectively prevents

clinical hepatitis A in adolescents and adults. In these countries, large-scale vaccination programmes are not recommended.

Countries with improving socioeconomic status may rapidly move from high to intermediate hepatitis A endemicity. In these countries, a relatively large proportion of the adult population is susceptible to HAV and large-scale hepatitis A vaccination is likely to be cost-effective and is therefore encouraged.

Targeted vaccination of high-risk groups should be considered in low and very low endemicity settings to provide individual health benefits. Groups at increased risk of hepatitis A include travellers to areas of intermediate or high endemicity, those requiring life-long treatment with blood products, men who have sex with men, workers in contact with non-human primates, and injection drug users. In addition, patients with chronic liver disease are at increased risk for fulminant hepatitis A and should be vaccinated.

The use of hepatitis A vaccine rather than passive prophylaxis with immune globulin should be considered for pre-exposure prophylaxis (e.g. for travellers to areas of higher hepatitis A endemicity) and post-exposure prophylaxis (e.g. for close contacts of acute cases of hepatitis A).

Recommendations for hepatitis A vaccination in outbreak situations depend on the epidemiologic features of hepatitis A in the community and the feasibility of rapidly implementing a widespread vaccination programme. The use of a single dose regimen of hepatitis A vaccine to control community-wide outbreaks has been most successful in small self-contained communities, when vaccination was started early in the course of the outbreak, and when high coverage of multiple age-cohorts was achieved.

Vaccination efforts should be supplemented with health education and improved sanitation.

Currently, inactivated HAV vaccines are licensed for intramuscular administration in a 2-dose schedule with the first dose given at the age 1 year, or older. The interval between the first (primary) dose and the second (booster) dose is flexible (from 6 months up to 4–5 years), but is usually 6–18 months. The live attenuated vaccine is administered as a single subcutaneous dose.

National immunization programmes may consider inclusion of single-dose inactivated hepatitis A vaccines in immunization schedules. This option seems to be comparable in terms of effectiveness, and is less expensive and easier to implement than the classical 2-dose schedule. However, until further experience has been obtained with a single-dose schedule, in individuals at substantial risk of contracting hepatitis A, and in immunocompromised individuals, a 2-dose schedule is preferred. Inactivated hepatitis A vaccines produced by different manufacturers, including combined hepatitis A vaccines, are interchangeable.

Apart from severe allergic reaction to the previous dose, there is no contraindication to the use of inactivated hepatitis A vaccines. These vaccines can be administered simultaneously with any of the vaccines routinely used in childhood immunization programmes or for travel prophylaxis. Inactivated hepatitis A vaccines should also

be considered for use in pregnant women at definite risk of HAV infection.

Severe allergy to components included in the live attenuated hepatitis A vaccines is a contraindication to their use, and as a rule, live vaccines should not be used in pregnancy or in severely immunocompromised patients. There is no information available on co-administration of live attenuated hepatitis A vaccines with other routinely used vaccines.

Following introduction, assessment of the impact of hepatitis A vaccines is important, using information on morbidity and mortality generated by surveillance and study data. Duration of the protection induced by 1- and 2-dose schedules should be regularly monitored. In particular, the possible use of a single-dose schedule should be accompanied by monitoring and evaluation plans.

References

- [1] WHO position paper on hepatitis A vaccines—June 2012. *Wkly Epidemiol Rec* 2012;87(28–29):261–76.
- [2] Hepatitis A vaccines WHO position paper. *Wkly Epidemiol Rec* 2000;75(5):37–44.

17 October 2012

Available online 8 November 2012