

Hepatitis B Questions and Answers

August 24, 2016

1. Where can one see what military recruits have received in terms of their immunizations?

Vaccination of military personnel is under the jurisdiction of the department of defense. Additional information regarding vaccination of military personnel can be found at the following website:

<https://www.vaccines.mil/Vaccines>

2. How long is hepatitis B vaccine protective?

Studies indicate that immunologic memory remains intact for at least 20 years and confers protection against clinical illness and chronic HBV infection, even though antibody to hepatitis B surface antigen (anti-HBs) levels that once measured adequate might become low or decline below detectable levels. If one is challenged with HBV, people whose immune systems are competent will mount an anamnestic response and develop protective anti-HBs. Currently, the ACIP does not recommend routine booster doses of hepatitis B vaccine for most vaccine recipients, except hemodialysis patients whose antibody levels are below 10mIU/mL (see <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5516a2.htm>). Studies are on-going to assess whether booster doses of hepatitis B vaccine will be needed in the future.

3. If healthcare workers received Hepatitis B vaccination in the 1980's, and have written documentation of vaccine response, do they need boosters or are they still immune? Do they need titers drawn?

Data show that vaccine-induced anti-HBs levels might decline over time; however, immune memory (anamnestic anti-HBs response) remains intact following immunization. People with anti-HBs concentrations that decline to less than 10 mIU/mL are still protected against HBV infection. For HCP with normal immune status who have demonstrated adequate anti-HBs (at least 10 mIU/ mL) following full vaccination, booster doses of vaccine or periodic anti-HBs testing are not recommended.

4. We encounter multiple nursing students who received hepatitis B vaccine series as a child but do not have proof of vaccine response. How should we handle these students?

To assess vaccine response in remotely vaccinated HCP, a challenge dose of HepB vaccine can be used to determine the presence of vaccine-induced immunologic memory through generation of an anamnestic response. Administer 1 dose of HepB vaccine and check titers 1-2 months after the dose was administered. HCP with a response ≥ 10 mIU/mL following a challenge dose are considered protected, regardless of future declines in anti-HBs. If the titer is < 10 mIU/mL, complete the second hepatitis vaccine series and check titers 1-2 months after the last dose. If the antibody titer is still negative after the second hepatitis B vaccination series, you should follow the guidance in Appendix A at <http://www.cdc.gov/mmwr/PDF/rr/rr5516.pdf>.

5. If a patient is diagnosed with acute hepatitis B and then resolves the infection, can the patient ever get hepatitis B again?

Generally speaking, no. It is possible, however, for a person to have two different HBV infections, the second due to an HBV variant or a different HBV subtype. This is not a common occurrence.

6. I have seen children's immunization records that show they have received three doses of Twinrix, would these be valid doses of Hepatitis B and Hepatitis A intervals are those as recommended by ACIP?

Twinrix doses administered to children can be counted as valid, as long as the ACIP recommended minimum intervals have been met.

7. Where can we find the Hepatitis B ACIP recommendations for health-care personnel?

These recommendations can be found the following links:

<http://www.cdc.gov/mmwr/pdf/rr/rr6007.pdf>, and <http://www.cdc.gov/mmwr/pdf/rr/rr6210.pdf>

8. How is HBV infection treated?

For acute infection, no medication is available; treatment is supportive.

There are several antiviral medications for persons with chronic infection. Persons with chronic HBV infection require linkage to care with regular monitoring to prevent liver damage and/or hepatocellular carcinoma. AASLD Practice guidelines are available for the treatment of Chronic Hepatitis B and can be found on this site: <http://www.aasld.org/publications/practice-guidelines-0>.

9. The Pink Book indicates that the hepatitis B second series of three doses, "should be given on the usual schedule of 0, 1 and 6 months (may be given on a 0, 1, and 4 month or a 0, 2 and 4 month schedule). Please clarify the differences in intervals and when they can be used.

Any of these schedules that may be used at the discretion of the provider. Providers may choose the schedule based on when the patient may return for vaccination or when they need protection.

10. Is it necessary to have documentation of the numeric value for HBSAB or is it enough to have a lab report stating "reactive or positive" with no listed numeric value?

Reporting of “reactive/positive” and “unreactive/negative” is acceptable only if the lab is using mIUs as the measurement for anti-HBs and the cutoff is below 10 for reporting negative/unreactive anti-HBs and 10 or above for reporting reactive/positive anti-HBs. You should check with the lab to be certain this is being done.

11. Allergy to baker’s yeast is a contraindication to Hep B vaccine, correct?

Persons with a history of severe allergic reaction (i.e., anaphylaxis) to a vaccine component (including baker’s yeast) or following a prior dose of hepatitis B vaccine should not receive additional doses. Hepatitis B vaccination is contraindicated for persons with a history of hypersensitivity to yeast or any other vaccine component. Despite a theoretic risk for allergic reaction to vaccination in persons with allergy to *Saccharomyces cerevisiae* (baker’s yeast), no evidence exists to document adverse reactions after vaccination of persons with a history of yeast allergy.

12. Can Pediarix inadvertently administered to an adolescent who needed catch up for Hep B and IPV be counted as valid? I understand that the DTaP can be counted as the Tdap.

Yes, a dose of Pediarix inadvertently administered to an adolescent can be counted as valid for Hep B and IPV. The dose would not need to be repeated. However, this would be considered a vaccine error. Efforts should be made to determine how the error occur, and mechanisms should be put in place to prevent to error from happening again. CDC also requests you report all vaccine administration errors to our Vaccine Adverse Events Reporting System at www.vaers.hhs.gov, so we can track them, and identify opportunities for their prevention.

13. If Twinrix is used for a dose of Hep B, can just Hep B be used for the rest of the series?

Because the hepatitis B component of Twinrix is equivalent to a standard adult dose of hepatitis B vaccine, the schedule is the same whether Twinrix or single-antigen hepatitis B vaccine is used. Single-antigen hepatitis B vaccine can be used to complete a series begun with Twinrix or vice versa.