VACCINATION AGAINST HEPATITIS A & B
A Summary of Current Recommendations

Office of Clinical Public Health Programs
Public Health Strategic Health Care Group

VACCINES FOR HEPATITIS A & B
Hepatitis A: Two inactivated vaccines available
Hepatitis B: Two recombinant vaccines available
Hepatitis A and B: One combination vaccine

WHO TO VACCINATE FOR HEPATITIS A AND/OR HEPATITIS B†-10
• Patients without prior immunity to hepatitis A or B (i.e. anti-HAV or anti-HBs and anti-HBc negative) who fall into one or more of the following groups as listed in table on Who To Vaccinate.
  AND
• Patients without an allergy to any component of the hepatitis A or B vaccine or to yeast with the hepatitis B vaccine.

WHY VACCINATE HEPATITIS C PATIENTS AGAINST HEPATITIS A & B?
• Patients coinfected with hepatitis C virus (HCV) and hepatitis A virus (HAV) or hepatitis B virus (HBV) are at increased risk for severe liver disease.
• Patients with HCV may be at increased risk for acquiring HBV.
• Vaccination against hepatitis A and B is beneficial in all patients with chronic liver disease. However, responses are better in patients with early compared to advanced disease.

VACCINATION APPROACH BASED ON SEROLOGY
* Anti-HAV: antibodies to hepatitis A antigen, either IgG or total (IgG plus IgM).
** Anti-HBs: antibody to hepatitis B surface antigen

Note: A positive anti-HBc (antibody to hepatitis B core antigen) in the absence of anti-HBs may not indicate immunity, and recommendations for vaccinations in this situation are not available.

RECOMMENDED SCHEDULE FOR ADULTS‡
§ If the series is delayed between doses, it is NOT necessary to restart the series. Continue from the last dose given.
• Vaccination begun with hepatitis A vaccine from one manufacturer may be completed with hepatitis A vaccine from another manufacturer.
  # Havrix® 1440 EL.U./1.0 mL or Vaqta® 50 U/1.0 mL given intramuscularly in the deltoid muscle.
  † Engerix-B® 20 mcg/1.0 mL or Recombivax HB® 10 mcg/1.0 mL given intramuscularly in the deltoid muscle. Engerix-B® can be used to complete a vaccination course initiated with Recombivax HB®.
  ‡ For hemodialysis patients: Engerix-B®, two 20 mcg/1.0 mL injections given at 0, 1, 2 and 6 months or Recombivax HB® 40 mcg/mL given at 0, 1, and 6 months, intramuscularly in the deltoid muscle.
  ± Twinrix® (combination of Havrix® 120 EL U. and Engerix-B® 20 mcg vaccine in 1 mL) given intramuscularly in the deltoid muscle.

NONRESPONDERS§-12
In immunocompromised patients and in hemodialysis patients, serologic testing may be necessary to determine antibody response. Additional booster doses of hepatitis A and/or hepatitis B vaccine or restarting the vaccination series may be needed.

REFERENCES

For further information, consult the VA hepatitis C website at www.hepatitis.va.gov and the NIH Consensus Statement at consensus.nih.gov

WHO TO VACCINATE

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<thead>
<tr>
<th>Hepatitis A Vaccine</th>
<th>Hepatitis B Vaccine</th>
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<tr>
<td>Persons with chronic liver disease</td>
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  • Alcoholic cirrhosis |
  • Chronic hepatitis B |
  • Chronic hepatitis C |
  • Autoimmune hepatitis |
  • Primary biliary cirrhosis |
  • Patients undergoing liver transplantation |
| Persons with HIV infection |
  • Injection drug users |
  • Persons engaged in high risk sexual activity |
| Persons at occupational and/or transmission risk |
  • Food handlers and kitchen workers |
  • Certain institutional workers |
  • Laboratory workers handling live hepatitis A |
| Persons and military personnel traveling to endemic areas |
| Persons at increased risk of exposure |
  • Residence of communities experiencing an outbreak of hepatitis A |
  • Sexual partners of HBV-infected persons |
  • Infants born to HBV-infected mothers |
  • Persons living with someone who has hepatitis B |
  • Patients on hemodialysis |
  • Recipients of frequent blood transfusions or clotting factors |
  • Prisoners |
  • Pacific Islanders |

In select patients, consider accelerated dosing of Hepatitis A and B combination vaccine (Day 0, Day 7, Day 21-30, Booster at 12 months).

Hepatitis A vaccine™

Hepatitis B vaccine™

Hepatitis A and B combination vaccine™

Anti-HAV* Anti-HBs**

HAV & HBV Combination Vaccine (Twinrix®) or Individual Vaccines
HAV Vaccine (Havrix® or Recombivax HB®)
HBV Vaccine (Engerix-B® or Recombivax HB®)
No vaccine

Month 0 Month 1 Month 6

Hepatitis A vaccine™

Hepatitis B vaccine™

Hepatitis A and B combination vaccine™

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