VENTURA COUNTY
HEALTH CARE PLAN

Prior Authorization DRUG Guidelines

Hepatitis B Immune Globulin (Bayhep B, Hepagam B, Hyperhep B S/D, Nabi-HB)

Effective Date: 1/28/14

Date Developed: 1/28/14 by Catherine Sanders, MD

Last Approval Date: 1/26/16, 1/24/17, 1/23/18, 1/22/19, 2/18/20, 2/2/21, 2/1/22, 1/31/23, 2/13/24, 2/18/25

Hepatitis B Immune Globulin is a blood product derivative used in the treatment of postexposure prophylaxis of hepatitis B. Hepatitis B immune globulin (HBIG) is a nonpyrogenic sterile solution containing immunoglobulin G (IgG) specific to hepatitis B surface antigen (HB_sAg). HBIG differs from immune globulin in the amount of anti-HB_s. Immune globulin is prepared from plasma that is not preselected for anti-HB_s content. HBIG is prepared from plasma preselected for high titer anti-HB_s. In the U.S., HBIG has an anti-HB_s high titer >1:100,000 by IRA.

Pre-Authorization Criteria:
Hepatitis B Immune Globulin is indicated for the following conditions:

1. Passive prophylactic immunity to hepatitis B following:
   a. Acute exposure to blood containing hepatitis B surface antigen (HB_sAg) or
   b. perinatal exposure of infants born to HB_sAg-positive mothers or
   c. sexual exposure to HB_sAg-positive persons or
   d. household exposure to persons with acute HBV infection
2. Prevention of hepatitis B virus recurrence after liver transplantation in HB_sAg-positive transplant patients (Hepagam B only)

Note: Hepatitis B immune globulin is not indicated for treatment of active hepatitis B infection and is ineffective in the treatment of chronic active hepatitis B infection.

Dosing: Adult:
Postexposure prophylaxis: IM: 0.06 mL/kg as soon as possible after exposure (ie, within 24 hours of needlestick, ocular, or mucosal exposure or within 14 days of sexual exposure); repeat at 28-30 days after exposure in non-responders to hepatitis B vaccine or in patients who refuse vaccination.

***Postexposure management of health care personnel (HCP)*:**
If the HCP has prior documentation of ≥3 doses of a hepatitis B vaccine and a post-vaccination anti-HBs ≥10 milliunits/mL, then HBIG is not needed, regardless of the patients HBsAg status.
If the HCP is unvaccinated or incompletely vaccinated, and if the source patient is HBsAg positive or their status is unknown, one dose HBIG should be administered. If the source patient is HBsAg negative, then HBIG is not needed.
If the HCP is vaccinated with 3 doses of hepatitis B vaccine but post-vaccination anti-HBs status is unknown, test HCP for anti-HBs. If anti-HBs ≥10 milliunits/mL then HBIG is not needed. If anti-HBs <10 milliunits/mL, and if the source patient is HBsAg positive or their status is unknown, 1 dose of HBIG

should be administered. If anti-HBs <10 milliunits/mL, and if the source patient is HBsAg negative, then HBIG is not needed.

If the HCP is vaccinated with 6 doses of hepatitis B vaccine but documented as a non-responder to the vaccine, and if the source patient is HBsAg negative, then HBIG is not needed. If the source patient is HBsAg positive or unknown, administer 2 doses of HBIG separated by 1 month.

***Postexposure management in nonoccupational settings*:**

If the exposed person is in the process of completing the hepatitis B vaccination series and the exposure was to an HBsAg-positive source, administer one dose of HBIG and complete the vaccination series. If exposure was to an HBsAg-unknown source, HBIG treatment is not required but the hepatitis B vaccine series should be completed.

If the exposed person is unvaccinated and the exposure was to an HBsAg-positive source, administer one dose of HBIG and hepatitis B vaccine as soon as possible (preferably within 24 hours after exposure [<7 days for percutaneous exposure or <14 days for sexual exposure]); complete the vaccination series. --If exposure was to an HBsAg-unknown source, HBIG treatment is not required but the hepatitis B vaccine series should be completed.

If the exposed person has prior documentation of ≥3 doses of a hepatitis B vaccine then HBIG treatment is not required.

NOTE: I.M. injection only in anterolateral aspect of upper thigh and deltoid muscle of upper arm; to prevent injury from injection, care should be taken when giving to patients with thrombocytopenia or bleeding disorders

Prevention of hepatitis B virus recurrence after liver transplantation (HepaGam B™): I.V.:
20,000 units/dose according to the following schedule:

Anhepatic phase (Initial dose): One dose given with the liver transplant
Week 1 postop: One dose daily for 7 days (days 1-7)
Weeks 2-12 postop: One dose every 2 weeks starting day 14
Month 4 onward: One dose monthly starting on month 4

Dose adjustment: Adjust dose to reach anti-HBs levels of 500 units/L within the first week after transplantation. In patients with surgical bleeding, abdominal fluid drainage >500 mL or those undergoing plasmapheresis, administer 10,000 units/dose every 6 hours until target anti-HBs levels are reached.

NOTE: I.V.:
HepaGam B™: Liver transplant: Administer at 2 mL/minute. Decrease infusion to ≤1 mL/minute for patient discomfort or infusion-related adverse events. Actual volume of infusion is dependent upon potency labeled on each individual vial.
Nabi-HB®: Although not FDA-approved for this purpose, Nabi-HB® has been administered intravenously in hepatitis B-positive liver transplant patients (Dickson, 2006)

NOTE: Thrombotic events have been reported with administration of intravenous immune globulin; use with caution in patients of advanced age, with a history of atherosclerosis or cardiovascular and/or thrombotic risk factors, patients with impaired cardiac output, coagulation disorders, prolonged immobilization, or patients with known/suspected hyperviscosity. Consider a baseline assessment of blood viscosity in patients at risk for hyperviscosity.

Dosing: Pediatric:

Perinatal exposure, prophylaxis:
Infants born to HBsAg-positive mothers: IM: 0.5 mL as a repeat of birth dose if the hepatitis B vaccination series is delayed for as long as 3 months (hepatitis B vaccine should also be administered at the same time/different site)

Postexposure prophylaxis
Infants <12 months: IM: 0.5 mL as soon as possible after exposure (eg, mother or primary caregiver with acute HBV infection); initiate hepatitis B vaccine series
Children ≥12 months and Adolescents: IM: 0.06 mL/kg as soon as possible after exposure (ie, within 24 hours of needlestick, ocular, or mucosal exposure or within 14 days of sexual exposure); repeat at 28 to 30 days after exposure

Dosage Forms: U.S.:
Excipient information presented when available (limited, particularly for generics); consult specific product labeling.
Solution, Injection [preservative free]:
HepaGam B: (1 mL, 5 mL) [contains polysorbate 80]
Solution, Intramuscular:
HyperHEP B S/D: (0.5 mL, 1 mL, 5 mL)
Nabi-HB: (1 mL, 5 mL) [thimerosal free]
BayHep B: (0.5 mL syringe, 1 mL syringe, 1 mL vial, 5 mL vial)

Adverse Reactions:
Serious Reactions: hypersensitivity reaction, anaphylaxis, infusion reactions, hyperviscosity, thromboembolism, viral transmission risk.

References:

1. American College of Obstetricians and Gynecologists, ACOG Practice Bulletin No. 86: "Viral Hepatitis in Pregnancy," *Obstet Gynecol*, 2007, 110(4):941-56. [PubMed 17906043]
2. Centers for Disease Control and Prevention (CDC), "A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP) Part I: Immunization of Infants, Children, and Adolescents," *MMWR Recomm Rep*, 2005, 54(RR-16):1-31.

3. Centers for Disease Control and Prevention (CDC), “A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP) Part II: Immunization of Adults,” *MMWR Recomm Rep*, 2006, 54(RR-16):1-33. [PubMed 17159833]
3. Centers for Disease Control and Prevention (CDC), U.S. Public Health Service, "Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis," *MMWR Recomm Rep*, 2001, 50(RR-11):1-52. [PubMed 11442229]
4. Cohen V, Jellinek SP, Teperikidis L, et al, “Room-Temperature Storage of Medications Labeled for Refrigeration,” *Am J Health-Syst Pharm*, 2007, 64(16):1711-15. [PubMed 17687059]
5. Dickson RC, Terrault NA, Ishitani M, et al, “Protective Antibody Levels and Dose Requirements for IV 5% Nabi Hepatitis B Immune Globulin Combined With Lamivudine in Liver Transplantation for Hepatitis B-Induced End Stage Liver Disease,” *Liver Transpl*, 2006, 12(1):124-33. [PubMed 16382463]
6. Tung BY and Kowdley KV, “Hepatitis B and Liver Transplantation,” *Clin Infect Dis*, 2005, 41(10):1461-6. [PubMed 16231258]
7. www.uptodate.com: Hepatitis B immune globulin: Drug Information
8. www.epocrates.com: Hepatitis B immune globulin: Drug Information
1. HepaGam B (hepatitis B immune globulin intravenous [human]) [prescribing information]. Roswell, GA: Saol Therapeutics Inc; March 2021.
9. Schillie S, Vellozzi C, Reingold A, et al. Prevention of hepatitis B virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices. MMWR Recomm Rep. 2018;67(No. RR-1):1-31.
10. Tung BY and Kowdley KV, “Hepatitis B and Liver Transplantation,” Clin Infect Dis, 2005, 41(10):1461-6.
11. Agarwal S, Karmaus W, Davis S, Gangur V. Immune markers in breast milk and fetal and maternal body fluids: a systematic review of perinatal concentrations. J Hum Lact. 2011;27(2):171-186.

REVISION HISTORY:

Date Reviewed/No Updates: 1/13/15 by C. Sanders, MD
Date Approved by P&T Committee: 1/27/15
Date Reviewed/No Updates: 1/26/16 by C. Sanders, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/26/16
Date Reviewed/No Updates: 1/24/17 by C. Sanders, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/24/17
Date Reviewed/No Updates: 1/23/18 by C. Sanders, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/23/18
Date Reviewed/No Updates: 1/22/19 by C. Sanders, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/22/19
Date Reviewed/No Updates: 2/18/20 by H. Taekman, MD; R. Sterling, MD
Date Approved by P&T Committee: 2/18/20
Date Reviewed/No Updates: 2/2/21 by H. Taekman, MD; R. Sterling, MD
Date Approved by P&T Committee: 2/2/21
Date Reviewed/No Updates: 2/1/22 by H. Taekman, MD; R. Sterling, MD
Date Approved by P&T Committee: 2/1/22

Date Reviewed/No Updates: 1/31/23 by H. Taekman, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/31/23
Date Reviewed/No Updates: 2/13/24 by H. Taekman, MD; R. Sterling, MD
Date Approved by P&T Committee: 2/13/24
Date Reviewed/Updated: 2/18/25 by H. Taekman, MD; R. Sterling, MD
Date Approved by P&T Committee: 2/18/25

Revision Date	Content Revised (Yes/No)	Contributors	Review/Revision Notes
1/24/17	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/23/18	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/22/19	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
2/18/20	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/2/21	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/1/22	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
1/31/23	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/13/24	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/18/25	Yes	Howard Taekman, MD; Robert Sterling, MD	Updated dosage section and added postexposure prophylaxis