

**HAB HIV Core Clinical Performance Measures
Hepatitis B Screening
November 2011**

Performance Measure: Hepatitis B Screening	
Percentage of patients, regardless of age, for whom Hepatitis B screening ¹ was performed at least once since the diagnosis of HIV/AIDS or for whom there is documented infection ² or immunity ³	
Numerator:	Number of patients for whom Hepatitis B screening was performed at least once since the diagnosis of HIV/AIDS or for whom there is documented infection ² or immunity ³
Denominator:	Number of patients, regardless of age, with a diagnosis of HIV/AIDS and who had at least two medical visits during the measurement year, with at least 60 days in between each visit
Patient Exclusions:	None
Data Elements:	<ol style="list-style-type: none"> 1. Does the patient, regardless of age, have a diagnosis of HIV/AIDS? (Y/N) <ol style="list-style-type: none"> a. If yes, did the patient have at least two medical visits during the measurement year, with at least 60 days in between each visit? (Y/N) <ol style="list-style-type: none"> i. If yes, is there evidence of documented Hepatitis B infection² or immunity³ in the patient medical record? (Y/N) <ol style="list-style-type: none"> 1. If no, was Hepatitis B screening performed at least once since diagnosis of HIV infection? (Y/N) <ol style="list-style-type: none"> a. If yes, list date.
Data Sources:	<ul style="list-style-type: none"> • Ryan White Program Services Report (RSR) question 56 (Hep B screening) • Electronic Medical Record/Electronic Health Record • CAREWare, Lab Tracker, or other electronic data base • Medical record data abstraction by grantee of a sample of records • Billing records
National Goals, Targets, or Benchmarks for Comparison:	Veterans Administration: 97% ⁴
Basis for Selection and Placement in Group 2:	
<p>Hepatitis B virus (HBV) is the leading cause of chronic liver disease worldwide. In countries with low prevalence of endemic chronic HBV infection, HBV is transmitted primarily through sexual contact and injection drug use. Although risk factors are similar, HBV is transmitted more efficiently than HIV.⁵</p> <p>HIV infection is association with more rapid progression of viral hepatitis-related liver disease, including end stage liver disease and cirrhosis. Antiretroviral (ARV) drugs active against both HIV and HBV may prevent the development of significant liver disease by directly suppressing HBV replication. Data suggest earlier treatment of HIV infection in persons coinfecting with HBV may reduce the risk of liver disease progression.⁶</p> <p>The measure is placed in Group 2 because of the emphasis on Hepatitis screening as outlined in the National Viral Hepatitis Strategy.⁷</p>	
US Department of Health and Human Services Guidelines:	

“HIV-infected persons should be tested for HBV infection. Initial testing...should be performed because these will identify the majority of patients with chronic hepatitis B [who should be further assessed for HBV treatment and antiretroviral therapy] or who need vaccination to prevent infection.”⁵

Baseline evaluation for each HIV-infected patient entering into care should include serology for hepatitis B virus. If HBsAg is positive at baseline or prior to initiation of ART, TDF+ (FTC or ₃TC) should be used as part of ARV regimen to treat both HBV and HIV infections. If HBsAg and HBsAb are negative at baseline, hepatitis B vaccine series should be administered.⁶

“The majority of HIV-infected patients with isolated anti-HBc are not immune to HBV infection and should be vaccinated with a complete primary series of hepatitis B vaccine. Certain specialists would test for HBV DNA to rule out occult chronic HBV infection before administering a complete primary series of hepatitis B vaccine.”⁵

References/Notes:

¹Screening can be completed in two ways: 1) Test for Hepatitis B surface antibody (anti-HBs) and if negative, proceed to Hepatitis B surface antigen (HBsAg) and Hepatitis B core antibody total (anti-HBc); or 2) complete all three tests as once.

²Documented infection includes any patient with active or chronic Hepatitis B infection (see chart below)

³Documented immunity includes patients immune to Hepatitis B due to natural infection or Hepatitis B vaccination (see chart below).

Interpretation of the Hepatitis B Panel		
Source: Centers for Disease Control and Prevention. Hepatitis B Information for Health Professionals. http://www.cdc.gov/hepatitis/HBV/HBVfaq.htm . Accessed on November 30, 2011.		
Tests	Results	Interpretation
HBsAg anti-HBc anti-HBs	negative negative negative	Susceptible
HBsAg anti-HBc anti-HBs	negative positive positive	Immune due to natural infection
HBsAg anti-HBc anti-HBs	negative negative positive	Immune due to Hepatitis B vaccination
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	Acutely infected
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	Chronically infected
HBsAg anti-HBc anti-HBs	negative positive negative	Interpretation unclear; four possibilities: 1. Resolved infection (most common) 2. False-positive anti-HBc, thus susceptible 3. "Low level" chronic infection 4. Resolving acute infection

⁴Backus et al., National Quality Forum performance measures for HIV/AIDS care: The Department of Veterans Affairs' Experience. *Arch Intern Med.* 2010;170(14):1239-1246.

⁵Centers for Disease Control and Prevention. *Guidelines for Prevention and Treatment of Opportunistic Infections in HIV-Infected Adults and Adolescents.* *MMWR* 2009;58 (no. RR-4): 1-207.
http://aidsinfo.nih.gov/contentfiles/Adult_OI_041009.pdf

⁶ Panel on Antiretroviral Guidelines for Adult and Adolescents. Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents. Department of Health and Human Services. January 10, 2011; 1-166. <http://aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf>

⁷US Department of Health & Human Services. *Combatting the Silent Epidemic of Viral Hepatitis. Action Plan for the Prevention, Care & Treatment of Viral Hepatitis: 1-84.*
<http://www.hhs.gov/ash/initiatives/hepatitis>

<p>Corresponding National Quality Forum (NQF) Endorsed Measure:</p> <p>NQF #: 0411</p> <p>Title: Hepatitis B Screening</p> <p>Description: Percentage of patients for whom Hepatitis B screening was performed at least once since the diagnosis of HIV infection or for whom there is documented immunity</p> <p>Status: Endorsed (Original Endorsement Date: July 31, 2008)</p> <p>Available at: http://www.qualityforum.org/Measures_List.aspx</p>

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