

# HAB HIV Core Clinical Performance Measures: Adult/Adolescent Clients Group 2



<b>Performance Measure:</b> Hepatitis B Vaccination		<b>OPR-Related Measure:</b> Yes <a href="http://www.hrsa.gov/performance/measure/measure.htm">www.hrsa.gov/performance/measure/measure.htm</a>
Percentage of clients with HIV infection who completed the vaccination series for Hepatitis B		
<b>Numerator:</b>	Number of HIV-infected clients with documentation of having ever completed the vaccination series for Hepatitis B <sup>1,2</sup>	
<b>Denominator:</b>	Number of HIV-infected clients who had a medical visit with a provider with prescribing privileges <sup>3</sup> at least once in the measurement year	
<b>Patient Exclusions:</b>	<ol style="list-style-type: none"> <li>1. Patients newly enrolled in care during the measurement year</li> <li>2. Patients with evidence of current HBV infection (Hep B Surface Antigen, Hep B e Antigen, Hep B e Antibody or Hep B DNA)</li> <li>3. Patients with evidence of past HBV infection with immunity (Hep B Surface Antibody without evidence of vaccination)</li> </ol>	
<b>Data Element:</b>	<ol style="list-style-type: none"> <li>1. Is the client HIV-infected? (Y/N) <ol style="list-style-type: none"> <li>a. If yes, does the client have documentation of Hepatitis B immunity or is HBV-infected? (Y/N) <ol style="list-style-type: none"> <li>i. If no, is there documentation that the client has completed the vaccine series for Hepatitis B?(Y/N)</li> </ol> </li> </ol> </li> </ol>	
<b>Data Sources:</b>	<ul style="list-style-type: none"> <li>• Electronic Medical Record/Electronic Health Record</li> <li>• CAREWare, Lab Tracker, or other electronic data base</li> <li>• Medical record data abstraction by grantee of a sample of records</li> </ul>	
<b>National Goals, Targets, or Benchmarks for Comparison:</b>	<p>Published data from the HIV Outpatient Study (HOPS) reports 17% of patients with HIV infection who were eligible for vaccination received at least 3 doses of vaccine.<sup>4</sup></p> <p>“Hepatitis B vaccination coverage among adults at high risk...[was] 45% in 2004.”<sup>5</sup></p>	
<b>Outcome Measures for Consideration:</b>	<ul style="list-style-type: none"> <li>○ Incidence of Hepatitis B infection in the clinic population</li> </ul>	
<b>Basis for Selection and Placement in Group 2:</b>		
<p>Hepatitis B virus (HBV) is the leading cause of chronic liver disease worldwide. In developed countries, HBV is transmitted primarily through sexual contact and injection-drug use. Even though risk factors are similar, HBV is transmitted more efficiently than HIV-1. Although up to 90% of HIV-1–infected persons have at least one serum marker of previous exposure to HBV, only approximately 10% have chronic hepatitis B, as evidenced by the detection of hepatitis B surface antigen (HBsAg) in the serum persisting for a minimum of 6 months.<sup>6</sup></p> <p>HIV-1 infection is associated with an increased risk for the development of chronic hepatitis B after HBV exposure. Limited data indicate that co-infected patients with chronic hepatitis B infection have higher HBV DNA levels and are more likely to have detectable hepatitis B e antigen (HBeAg), accelerated loss of</p>		

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protective hepatitis B surface antibody (anti-HBs), and an increased risk for liver-related mortality and morbidity.<sup>7,8</sup>

There is a protective antibody response in approximately 30%-55% of healthy adults aged  $\leq 40$  years after the first dose of vaccine. After age 40, the proportion of persons with a protective antibody response after a 3-dose vaccination regimen declines. In addition to age, other host factors (e.g., smoking, obesity, genetic factors, and immune suppression) contribute to decreased vaccine response. Response to hepatitis B vaccination also is reduced in other immunocompromised persons (e.g., HIV-infected persons, hematopoietic stem-cell transplant recipients, and patients undergoing chemotherapy).

Measure reflects important aspect of care that impacts HIV-related morbidity and focuses on treatment decisions that affect a sizable population. Measure has a strong evidence base supporting the use.

US Public Health Guidelines:

“Several liver-associated complications that are ascribed to flares in HBV activity or toxicity of antiretroviral agents can affect the treatment of HIV in patients with HBV coinfection. Therefore, providers should know the HBV status of all patients with HIV. For patients who are HBV negative, prophylaxis is recommended. This consists [of] 3 doses of vaccine for “all susceptible patients (i.e., antihepatitis B core antigen-negative).”<sup>9</sup> (6/14/02)

References/Notes:

<sup>1</sup>Patients in the middle of the vaccination series on 12/31/x would not be captured in the numerator in year x. They would, if the series was completed on schedule, be captured in year x+1.

<sup>2</sup>Centers for Disease Control and Prevention. Treating opportunistic infections among HIV-infected adults and adolescents: Recommendations from CDC, the National Institutes of Health, and the HIV Medicine Association/Infectious Diseases Society of America. MMWR 2004; 53(No. RR-15). ([http://aidsinfo.nih.gov/ContentFiles/TreatmentofOI\\_AA.pdf](http://aidsinfo.nih.gov/ContentFiles/TreatmentofOI_AA.pdf)).

<sup>3</sup>A “provider with prescribing privileges” is a health care professional who is certified in their jurisdiction to prescribe ARV therapy.

<sup>4</sup>Tedaldi EM, Baker RK, Moorman AC, Wood KC, Fuhrer J, McCabe RE, Holmberg SD; HIV Outpatient Study (HOPS) Investigators. Hepatitis A and B vaccination practices for ambulatory patients infected with HIV. Clinical Infectious Diseases. 2004 May 15;38(10):1478-84. (<http://www.journals.uchicago.edu/CID/journal/issues/v38n10/32448/32448.web.pdf>)

<sup>5</sup>Centers for Disease Control and Prevention. Hepatitis B Vaccination Coverage Among Adults —United States, 2004. MMWR 2006;55:509-11 (<http://www.cdc.gov/mmwr/PDF/wk/mm5518.pdf>)

<sup>6</sup>Centers for Disease Control and Prevention. Treating opportunistic infections among HIV-infected adults and adolescents: recommendations from CDC, the National Institutes of Health, and the HIV Medicine Association/Infectious Diseases Society of America. MMWR 2004; 53(No. RR-15). ([http://aidsinfo.nih.gov/ContentFiles/TreatmentofOI\\_AA.pdf](http://aidsinfo.nih.gov/ContentFiles/TreatmentofOI_AA.pdf))

<sup>7</sup>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 29, 2008. Available at <http://aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf> Accessed April 2, 2008.

<sup>8</sup>Centers for Disease Control and Prevention. Guidelines for Preventing Opportunistic Infections Among HIV-Infected Persons — 2002 Recommendations of the U.S. Public Health Service and the Infectious Diseases Society of America. MMWR 2002;51(No. RR-8) (<http://www.cdc.gov/mmwr/PDF/rr/rr5108.pdf> or <http://aidsinfo.nih.gov/ContentFiles/OIpreventionGL.pdf>)

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