

## Addendum P: VACCINE TITER TABLE

<p><b>Hepatitis B</b>    10 IU/L or greater</p>	<p>Accepted as positive immunity</p>	<p><b>H. influenza B (HiB vaccine)</b>    1.0 µg/ml or greater</p>	<p>Considered positive and protective after vaccination</p>
<p><b>Measles (Rubeola)</b></p> <p>Less than 0.89 IU</p> <p>0.90-1.09 IU</p> <p>1.10 IU or greater</p>	<p>Negative</p> <p>Equivocal</p> <p>Positive: In absence of active infection, is 98% correlation with immunity</p>	<p><b>Tetanus</b>    0.01 IU/mL or greater</p> <p><b>Diphtheria</b>    0.01 IU/mL or greater</p>	<p>Positive response</p> <p><b>REF:</b> For tetanus and diphtheria: Pediatrics Vol. 113 No. 4 April 2004, p. 733</p> <p>Positive response</p>
<p><b>Mumps</b></p> <p>Less than 0.89 IU</p> <p>0.90-1.09 IU</p> <p>1.10 IU or greater</p>	<p>Negative</p> <p>Equivocal</p> <p>Positive: In absence of active infection, is 98% correlation with immunity</p>	<p><b>Pertussis</b></p> <p>Less than 8 units</p> <p>9-11 units</p> <p>12 units or greater</p>	<p>Negative</p> <p>Equivocal</p> <p>Positive response and represents immunity after vaccination</p>
<p><b>Rubella</b></p> <p>Less than 4 IU/mL</p> <p>5-9 IU/mL</p> <p>10 IU/mL or greater</p>	<p>Negative</p> <p>Equivocal</p> <p>Positive; Indicates current or previous exposure and immunity to rubella.</p>	<p><b>Varicella (Chickenpox)</b></p> <p>Less than 0.89 IU</p> <p>0.90-1.09 IU</p> <p>1.10 IU or greater:</p>	<p>Negative</p> <p>Equivocal</p> <p>Positive: In absence of active infection, is 98% correlation with immunity</p>
<p><b>Polio (IPV or OPV)</b></p> <p>Poliovirus 1: <math>\geq 1:10</math> IU/ml</p> <p>Poliovirus 2: <math>\geq 1:10</math> IU/ml</p> <p>Poliovirus 3: <math>\geq 1:10</math>*</p>	<p>*In vaccinated individuals, the significance of a low antibody titer to poliovirus 3 (the least immunogenic vaccine serotype) is unclear</p>	<p><b>Prevnar &amp; Adult Pneumonia Vaccine</b></p> <p>Response of 1 µg/mL or greater one month post-vaccine is a long-term protective response in both children and adults.</p>	<p>A response to greater than 50% of the antigens contained in the vaccine generally indicates protective response</p>
<p><b>Hepatitis A</b></p> <p>IgM (for acute infection) and IgG (for immunity) are not measured separately</p>	<p>Designated as positive or negative. Elevated IgG levels are considered protective</p>	<p><b>Rabies vaccine</b></p> <p>presence of antibody represents immunity</p>	<p><b>Values obtained from ArupLaboratories at <a href="http://www.ArupLabs.com">www.ArupLabs.com</a></b></p>

*How do I interpret serological lab results?*

<b>Interpretation of the Hepatitis B Panel</b> Antibody testing more than six months after vaccination series may not distinguish between recent HBV infection or vaccination.		
Tests	Results	Interpretation
<b>HBsAg</b> (Hep B Surface Antigen) <b>anti-HBc</b> (antibody to Hep B core antigen) <b>anti-HBs</b> (antibody to Hep B Surface Antigen)	Negative Negative Negative	Susceptible; Non-immune
<b>HBsAg</b> (Hep B Surface Antigen) <b>anti-HBc</b> (antibody to Hep B core antigen) <b>anti-HBs</b> (antibody to Hep B Surface Antigen)	Negative <b>Positive</b> <b>Positive</b>	Immune due to natural infection
<b>HBsAg</b> (Hep B Surface Antigen) <b>anti-HBc</b> (antibody to Hep B core antigen) <b>anti-HBs</b> (antibody to Hep B Surface Antigen)	Negative Negative <b>Positive</b>	Immune due to hepatitis B vaccination
<b>HBsAg</b> (Hep B Surface Antigen) <b>anti-HBc</b> (antibody to Hep B core antigen) <b>IgM anti-HBc</b> (acute antibody to Hep B core antigen) <b>anti-HBs</b> (antibody to Hep B Surface Antigen)	<b>Positive</b> <b>Positive</b> <b>Positive</b> Negative	Acutely infected
<b>HBsAg</b> (Hep B Surface Antigen) <b>anti-HBc</b> (antibody to Hep B core antigen) <b>IgM anti-HBc</b> (acute antibody to Hep B core antigen) <b>anti-HBs</b> (antibody to Hep B Surface Antigen)	<b>Positive</b> <b>Positive</b> Negative Negative	Chronically infected
<b>HBsAg</b> (Hep B Surface Antigen) <b>anti-HBc</b> (antibody to Hep B core antigen) <b>anti-HBs</b> (antibody to Hep B Surface Antigen)	Negative <b>Positive</b> Negative	Four interpretations possible *

**\* Four Interpretations:**

1. Might be recovering from acute HBV infection.
2. Might be distantly immune and test not sensitive enough to detect very low level of anti-HBs in serum.
3. Might be susceptible with a false positive anti-HBc.
4. Might be undetectable level of HBsAg present in the serum and the person is actually chronically infected.

