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PATIENT REPORT

Patient Age/Sex: Unknown

Specimen Collected: 16-Jun-23 10:13

Humoral Immunity Panel II |**Received: 16-Jun-23 10:15** **Report/Verified: 16-Jun-23 10:39**

Procedure	Result	Units	Reference Interval
Diphtheria Antibody,IgG	0.6 [i1]	IU/mL	
Tetanus Antibody,IgG	1.5 [i2]	IU/mL	
Pn serotype 1 IgG (P13,P20,PNX, V15)	1.56	ug/mL	
Pn serotype 3 IgG (P13,P20,PNX, V15)	1.98	ug/mL	
Pn serotype 4 IgG (P7,P13,P20, PNX,V15)	1.78	ug/mL	
Pn serotype 5 IgG (P13,P20,PNX, V15)	2.36	ug/mL	
Pn serotype 6B IgG (P7,P13,P20, PNX,V15)	3.56	ug/mL	
Pn serotype 7F IgG (P13,P20,PNX, V15)	2.58	ug/mL	
Pn serotype 8 IgG (P20,PNX)	5.62	ug/mL	
Pn serotype 9N IgG (PNX)	3.65	ug/mL	
Pn serotype 9V IgG (P7,P13,P20, PNX,V15)	2.45	ug/mL	
Pn serotype 12F IgG (P20,PNX)	2.35	ug/mL	
Pn serotype 14 IgG (P7,P13,P20, PNX,V15)	6.35	ug/mL	
Pn serotype 18C IgG (P7,P13,P20, PNX,V15)	2.35	ug/mL	
Pn serotype 19F IgG (P7,P13,P20, PNX,V15)	6.32	ug/mL	
Pn serotype 23F IgG (P7,P13,P20, PNX,V15)	3.23	ug/mL	
Pn Serotype Interpretation	See Note [i3]		

Test Information

i1: Diphtheria Antibody, IgG

INTERPRETIVE INFORMATION: Diphtheria Ab, IgG

Antibody concentration of greater than 0.1 IU/mL is usually considered protective.

Responder status is determined according to the ratio of a one month post-vaccination sample to pre-vaccination concentrations of Diphtheria IgG Abs as follows:

1. If the one month post-vaccination concentration is less than 1.0 IU/mL, the patient is considered to be a non-responder.

*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

Test Information

i1: Diphtheria Antibody, IgG

2. If the post-vaccination concentration is greater than or equal to 1.0 IU/mL, a patient with a ratio of less than 1.5 is a non-responder, a ratio of 1.5 to less than 3.0, a weak responder, and a ratio of 3.0 or greater, a good responder.

3. If the pre-vaccination concentration is greater than 1.0 IU/mL, it may be difficult to assess the response based on a ratio alone. A post-vaccination concentration above 2.5 IU/mL in this case is usually adequate.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i2: Tetanus Antibody, IgG

INTERPRETIVE INFORMATION: Tetanus Ab, IgG

Antibody concentration of greater than 0.1 IU/mL is usually considered protective.

Responder status is determined according to the ratio of a one-month post-vaccination sample to pre-vaccination concentration of Tetanus IgG Abs as follows:

1. If the one month post-vaccination concentration is less than 1.0 IU/mL, the patient is considered a non-responder.

2. If the post-vaccination concentration is greater than or equal to 1.0 IU/mL, a patient with a ratio of less than 1.5 is a non-responder, a ratio of 1.5 to less than 3.0, a weak responder, and a ratio of 3.0 or greater, a good responder.

3. If the pre-vaccination concentration is greater than 1.0 IU/mL, it may be difficult to assess the response based on a ratio alone. A post-vaccination concentration above 2.5 IU/mL in this case is usually adequate.

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Test Information

i2: Tetanus Antibody, IgG

Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i3: Pn Serotype Interpretation

INTERPRETIVE INFORMATION: Streptococcus pneumoniae Antibodies, IgG

A pre- and postvaccination comparison is required to adequately assess the humoral immune response to the pure polysaccharide Pneumovax 23 (PNX) and/or the protein conjugated Prevnar 7 (P7), Prevnar 13 (P13), Prevnar 20 (P20), and Vaxneuvance (V15) Streptococcus pneumoniae vaccines. Prevaccination samples should be collected prior to vaccine administration. Postvaccination samples should be obtained at least 4 weeks after immunization. Testing of postvaccination samples alone will provide only general immune status of the individual to various pneumococcal serotypes.

In the case of pure polysaccharide vaccine, indication of immune system competence is further delineated as an adequate response to at least 50 percent of the serotypes in the vaccine challenge for those 2-5 years of age and to at least 70 percent of the serotypes in the vaccine challenge for those 6-65 years of age. Individual immune response may vary based on age, past exposure, immunocompetence, and pneumococcal serotype.

Responder Status	Antibody Ratio
Nonresponder	Less than twofold increase and postvaccination concentration less than 1.3 ug/mL
Good responder	A least a twofold increase and/or a postvaccination concentration greater than or equal to 1.3 ug/mL

A response to 50-70 percent or more of the serotypes in the vaccine challenge is considered a normal humoral response.(Daly, 2014) Antibody concentration greater than 1.0-1.3 ug/mL is generally considered long-term protection.(Daly, 2015)

References:

1. Daly TM, Pickering JW, Zhang X, et al. Multilaboratory assessment of threshold versus fold-change algorithms for minimizing analytical variability in multiplexed pneumococcal IgG measurements. Clin Vaccine Immunol. 2014;21(7):982-988.

Test Information

i3: Pn Serotype Interpretation

2. Daly TM, Hill HR. Use and clinical interpretation of pneumococcal antibody measurements in the evaluation of humoral immune function. Clin Vaccine Immunol. 2015;22(2):148-152.

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