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500 Chipeta Way, Salt Lake City, Utah 84108-1221 phone: 801-583-2787, toll free: 800-522-2787 Jonathan R. Genzen, MD, PhD, Chief Medical Officer

Specimen Collected: 05-Jun-23 12:52

Patient Age/Sex:

Unknown

Pneumococcal Abs, IgG 9	Received: 05-Jur	n-23 12:53	Report/Verified: 05-Jun-23 13:05
Procedure	Result	Units	Reference Interval
Pn serotype 2 IgG (PNX)	25.32	ug/mL	
Pn serotype 10A IgG (P20,PNX)	1.23	ug/mL	
Pn serotype 11A IgG (P20,PNX)	3.25	ug/mL	
Pn serotype 15B IgG (P20,PNX)	12.25	ug/mL	
Pn serotype 17F IgG (PNX)	15.23	ug/mL	
Pn serotype 19A IgG (P13,P20,	2.30	ug/mL	
PNX, V15)			
Pn serotype 20 IgG (PNX)	6.35	ug/mL	
Pn serotype 22F IgG (P20,PNX,	2.36	ug/mL	
V15)			
Pn serotype 33F IgG (P20,PNX,	1.23	ug/mL	
V15)			
Pn Serotype Interpretation	See Note <sup>i1</sup>		

## Test Information

il: 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 StatusAntibody RatioNonresponder . . . . . . . . . Less than twofold increase and postvaccination<br/>concentration less than 1.3 µg/mL

Good responder . . . . . . . . . . . . . . . At least a twofold increase and/or a postvaccination concentration greater than or equal to 1.3  $\mu g/mL$ 

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

Unless otherwise indicated, testing performed at: ARUP Laboratories 500 Chipeta Way, Salt Lake City, UT 84108 Laboratory Director: Jonathan R. Genzen, MD, PhD 
 ARUP Accession:
 23-156-900078

 Report Request ID:
 17763683

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Patient Age/Sex:

Unknown

## Test Information

il: Pn Serotype Interpretation

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  $\mu$ g/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.

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.

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

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