



BlueCross BlueShield
of Alabama

Name of Blue Advantage Policy:
Antiprothrombin Antibody

Policy #: 096
Category: Laboratory

Latest Review Date: May 2021
Policy Grade: **Active Policy but no
longer scheduled for
regular literature
reviews and updates.**

BACKGROUND:

Blue Advantage medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:

1. *Safe and effective;*
2. *Not experimental or investigational*;*
3. *Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:*
 - *Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;*
 - *Furnished in a setting appropriate to the patient's medical needs and condition;*
 - *Ordered and furnished by qualified personnel;*
 - *One that meets, but does not exceed, the patient's medical need; and*
 - *At least as beneficial as an existing and available medically appropriate alternative.*

Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill **Original Medicare for covered services that are related to **clinical trials** that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).*

POLICY:

Blue Advantage will treat **antiprothrombin antibody** as a **non-covered** benefit and as **investigational**.

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

Anti-phospholipid syndrome (APS) is an autoimmune condition characterized by moderate-to-high levels of circulating anti-phospholipid antibodies and the presence of venous and arterial thromboses, autoimmune thrombocytopenia, fetal loss, and other clinical features, including transient ischemic attacks, amaurosis fugax, Coombs-positive hemolytic anemia, and livedo reticularis.

Detection of antiprothrombin antibodies is used to aid in the diagnosis of antiphospholipid syndrome (APS) and to confirm antiprothrombin antibody presence in patients with lupus anticoagulants and hypoprothrombinemia using the Enzyme-linked immunosorbent assay (ELISA) method.

KEY POINTS:

This policy was updated with literature review performed most recently through May 11, 2021.

Summary of Evidence

At this time, antiprothrombin antibody patient stratification provides additional information that may be useful for research and for treatment, but does not alter the diagnosis. Research of the current literature suggests that there is a paucity of evidence to prove that antithrombin antibodies increase the risk of thromboembolic events. More prospective, longitudinal clinical studies are needed to clarify the clinical relevance of this information. The utility of this testing cannot be proven at this time and therefore is considered investigational.

Practice Guidelines and Position Statements**American College of Obstetricians and Gynecologists**

Guidelines on Anti-phospholipid syndrome (APS) from the American College of Obstetricians and Gynecologists (ACOG, 2005) stated that testing for anti-prothrombin antibodies "cannot be recommended for clinical use at this time."

British Committee for Standards in Haematology

The most current guidelines state that the clinical significance of anti-prothrombin antibodies has not been defined (British Committee for Standards in Haematology, 2000).

The Haemostasis and Thrombosis Task Force of the British Committee for Standards in Haematology

The Haemostasis and Thrombosis Task Force of the British Committee for Standards in Haematology reached the following conclusion: "Antiprothrombin antibodies generally exhibit poor specificity for venous thrombosis and recurrent fetal loss and may be found in patients with infection. Their precise clinical significance is not yet clear. One report has claimed an association with myocardial infarction, but more work is required to clarify the clinical importance of this observation."

U.S. Preventative Services Task Force

Not applicable

KEY WORDS:

Prothrombin, antiprothrombin antibody, antiphospholipid antibody, APL, antiphospholipid syndrome, APS, Hughes syndrome, beta-2 glycoprotein I, thrombosis, pregnancy loss, thrombocytopenia

APPROVED BY GOVERNING BODIES:

Not applicable

BENEFIT APPLICATION:

Coverage is subject to member’s specific benefits. Group specific policy will supersede this policy when applicable.

CURRENT CODING:

CPT codes:

86849	Unlisted Immunology procedure
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REFERENCES:

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16. Oku K, Atsumi T, Amengual O, Koike T. Antiprothrombin antibody testing: Detection and clinical utility. *Semin Thromb Hemost*. 2008; 34(4):335-339.
17. Pengo V, Tripodi A, Reber G, Rand JH, Ortel TL, Galli M, De Groot PG, Subcommittee on Lupus Anticoagulant/Antiphospholipid Antibody of the Scientific and Standardisation Committee of the International Society on Thrombosis and Haemostasis. Update of the guidelines for lupus anticoagulant detection. Subcommittee on Lupus Anticoagulant/Antiphospholipid Antibody of the Scientific and Standardisation Committee of the International Society on Thrombosis and Haemostasis. *J Thromb Haemost*. 2009; 7(10):1737.

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19. Tsutsumi A, et al. Significance of antiprothrombin antibodies in patients with systemic lupus erythematosus: clinical evaluation of the antiprothrombin assay and the antiphosphatidylserine/prothrombin assay, and comparison with other antiphospholipid antibody assays. *Mod Rheumatol.* 2006 Jun; 16(3): 158–164.

POLICY HISTORY:

Adopted for Blue Advantage, March 2005

Available for comment May 1-June 14, 2005

Medical Policy Group, February 2007

Medical Policy Group, February 2009

Medical Policy Group, June 2011; Updated Key Points & References

Medical Policy Group, September 2012

Medical Policy Group, June 2019

Medical Policy Group, May 2021

This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member's plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield's administration of plan contracts.