

05-82000-23

Original Effective Date: 02/15/02

Reviewed: 03/27/25

Revised: 04/15/25

Subject: Measurement of Apolipoprotein B (apo B) and Apolipoprotein E (apo E) in Risk Assessment & Management of Cardiovascular Disease

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

Position Statement	Billing/Coding	Reimbursement	Program Exceptions	Definitions	Related Guidelines
Other	References	Updates			

DESCRIPTION:

APOLIPOPROTEIN B

Apolipoprotein B (apo B) is the major protein moiety of all lipoproteins, except for high-density lipoprotein (HDL). The most abundant form of apo B, large B or B₁₀₀, constitutes the apo B found in LDL and very-low-density LDL. Because LDL and very-low density LDL each contain 1 molecule of apo B, the measurement of apo B reflects the total number of these atherogenic particles, 90% of which are LDL. Because LDL particles can vary in size and in cholesterol content, for a given concentration of LDL-C, there can be a wide variety in size and numbers of LDL particles. Thus, it has been postulated that apo B is a better measure of the atherogenic potential of serum LDL than LDL concentration.

APOLIPOPROTEIN E

Apolipoprotein E (apo E) is the primary apolipoprotein found in very-low density LDLs and chylomicrons. Apo E is the primary binding protein for LDL receptors in the liver and is thought to play an important role in lipid metabolism. The apo E gene is polymorphic, consisting of 3 epsilon alleles (e2, e3, e4) that code for 3 protein isoforms, known as E2, E3, and E4, which differ from one another by one amino acid. These molecules mediate lipid metabolism through their different interactions with LDL receptors. The genotype of apo E alleles can be assessed by gene amplification techniques, or the APOE phenotype can be assessed by measuring plasma levels of apo E. It has been proposed that various apo E genotypes are more atherogenic than others and that measurement may provide information on the risk of coronary artery disease beyond traditional risk factor measurement. It has also been proposed that the apo E

genotype may be useful in the selection of specific components of lipid lowering therapy, such as drug selection.

POSITION STATEMENT:

Note: Coverage may be governed by state or federal mandates.

Measurement of apolipoprotein B (apo B) or apolipoprotein E (apo E) genotype or phenotype is considered **experimental or investigational** as an adjunct to LDL cholesterol in the risk assessment and management of cardiovascular disease. The evidence is insufficient to determine the effects of the technology on health outcomes.

BILLING/CODING INFORMATION:

There is no specific CPT or HCPCS code to report measurement of apo B or apo E.

REIMBURSEMENT INFORMATION:

None applicable.

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products: No National Coverage Determination (NCD) or Local Coverage Determination (LCD) was found at the time of the last guideline reviewed date.

If this Medical Coverage Guideline contains a step therapy requirement, in compliance with Florida law 627.42393, members or providers may request a step therapy protocol exemption to this requirement if based on medical necessity. The process for requesting a protocol exemption can be found at [Coverage Protocol Exemption Request](#).

DEFINITIONS:

None

RELATED GUIDELINES:

[Genetic Testing, 05-82000-28](#)

[Tumor/Genetic Markers, 05-86000-22](#)

OTHER:

None applicable.

REFERENCES:

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COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 03/27/25.

GUIDELINE UPDATE INFORMATION:

02/15/02	New Medical Coverage Guideline.
03/15/03	MCG annual review.
04/15/04	MCG annual review; maintain investigational status.
04/15/05	Scheduled review, no change in coverage statement. Revised billing coding information section; added code 82172. Updated references.
03/15/06	Annual review; continue investigational status.
03/15/07	Scheduled review; no change in coverage statement; references updated.
06/15/07	Reformatted guideline.
03/15/08	Annual review: position statement maintained and references updated.
03/15/09	Annual review: position statement maintained and references updated.
03/15/10	Annual review: position statement maintained and references updated.
02/15/11	Annual review: position statement maintained, and references updated.
05/11/14	Revision: Program Exceptions section updated.
11/01/15	Revision: ICD-9 Codes deleted.
06/15/17	Revision; Investigational position maintained; guideline title, description, position statement, and references updated.
04/15/19	Review; Position statement maintained; billing section and references updated.

09/15/20	Review; Position statement maintained and references updated.
02/15/22	Review: Investigational position statement maintained; references updated.
06/15/23	Revision: Note added to the position statement section.
01/01/24	Position statements maintained.
04/15/25	Review: Position statement maintained; description and references updated.