LCD - Assays for Vitamins and Metabolic Function (L34914)

Links in PDF documents are not guaranteed to work. To follow a web link, please use the MCD Website.

Contractor Information

CONTRACTOR NAME	CONTRACT TYPE	CONTRACT NUMBER	JURISDICTION	STATES
Novitas Solutions, Inc.	A and B MAC	04111 - MAC A	J - H	Colorado
Novitas Solutions, Inc.	A and B MAC	04112 - MAC B	J - H	Colorado
Novitas Solutions, Inc.	A and B MAC	04211 - MAC A	J - H	New Mexico
Novitas Solutions, Inc.	A and B MAC	04212 - MAC B	J - H	New Mexico
Novitas Solutions, Inc.	A and B MAC	04311 - MAC A	J - H	Oklahoma
Novitas Solutions, Inc.	A and B MAC	04312 - MAC B	J - H	Oklahoma
Novitas Solutions, Inc.	A and B MAC	04411 - MAC A	J - H	Texas
Novitas Solutions, Inc.	A and B MAC	04412 - MAC B	J - H	Texas
Novitas Solutions, Inc.	A and B MAC	04911 - MAC A	J - H	Colorado New Mexico Oklahoma Texas
Novitas Solutions, Inc.	A and B MAC	07101 - MAC A	J - H	Arkansas
Novitas Solutions, Inc.	A and B MAC	07102 - MAC B	J - H	Arkansas
Novitas Solutions, Inc.	A and B MAC	07201 - MAC A	J - H	Louisiana
Novitas Solutions, Inc.	A and B MAC	07202 - MAC B	J - H	Louisiana
Novitas Solutions, Inc.	A and B MAC	07301 - MAC A	J - H	Mississippi
Novitas Solutions, Inc.	A and B MAC	07302 - MAC B	J - H	Mississippi
Novitas Solutions, Inc.	A and B MAC	12101 - MAC A	J - L	Delaware
Novitas Solutions, Inc.	A and B MAC	12102 - MAC B	J - L	Delaware
Novitas Solutions, Inc.	A and B MAC	12201 - MAC A	J - L	District of Columbia
Novitas Solutions, Inc.	A and B MAC	12202 - MAC B	J - L	District of Columbia
Novitas Solutions, Inc.	A and B MAC	12301 - MAC A	J - L	Maryland
Novitas Solutions, Inc.	A and B MAC	12302 - MAC B	J - L	Maryland
Novitas Solutions, Inc.	A and B MAC	12401 - MAC A	J - L	New Jersey
Novitas Solutions, Inc.	A and B MAC	12402 - MAC B	J - L	New Jersey
Novitas Solutions, Inc.	A and B MAC	12501 - MAC A	J - L	Pennsylvania
Novitas Solutions, Inc.	A and B MAC	12502 - MAC B	J - L	Pennsylvania
Novitas Solutions, Inc. Created on 07/21/2022. Pa	A and B MAC	12901 - MAC A	J - L	Delaware

CONTRACTOR NAME	CONTRACT TYPE	CONTRACT NUMBER	JURISDICTION	STATES
				District of Columbia
				Maryland
				New Jersey
				Pennsylvania

LCD Information

Document Information

LCD ID

L34914

LCD Title

Assays for Vitamins and Metabolic Function

Proposed LCD in Comment Period

N/A

Source Proposed LCD

DL34914

Original Effective Date

For services performed on or after 10/01/2015

Revision Effective Date

For services performed on or after 07/01/2020

Revision Ending Date

N/A

Retirement Date

N/A

Notice Period Start Date

06/16/2016

Notice Period End Date

08/03/2016

CMS National Coverage Policy

This LCD supplements but does not replace, modify or supersede existing Medicare applicable National Coverage Determinations (NCDs) or payment policy rules and regulations for vitamins and metabolic function assay services. Federal statute and subsequent Medicare regulations regarding provision and payment for medical services are lengthy. They are not repeated in this LCD. Neither Medicare payment policy rules nor this LCD replace, modify or

AMA CPT / ADA CDT / AHA NUBC Copyright Statement

CPT codes, descriptions and other data only are copyright 2021 American Medical Association. All Rights Reserved. Applicable FARS/HHSARS apply.

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

Current Dental Terminology $\ @$ 2021 American Dental Association. All rights reserved.

Copyright © 2013 - 2022, the American Hospital Association, Chicago, Illinois. Reproduced by CMS with permission. No portion of the American Hospital Association (AHA) copyrighted materials contained within this publication may be copied without the express written consent of the AHA. AHA copyrighted materials including the UB-04 codes and descriptions may not be removed, copied, or utilized within any software, product, service, solution or derivative work without the written consent of the AHA. If an entity wishes to utilize any AHA materials, please contact the AHA at 312-893-6816. Making copies or utilizing the content of the UB-04 Manual, including the codes and/or descriptions, for internal purposes, resale and/or to be used in any product or publication; creating any modified or derivative work of the UB-04 Manual and/or codes and descriptions; and/or making any commercial use of UB-04 Manual or any portion thereof, including the codes and/or descriptions, is only authorized with an express license from the American Hospital Association. To license the electronic data file of UB-04 Data Specifications, contact Tim Carlson at (312) 893-6816. You may also contact us at ub04@aha.org.

supersede applicable state statutes regarding medical practice or other health practice professions acts, definitions and/or scopes of practice. All providers who report services for Medicare payment must fully understand and follow all existing laws, regulations and rules for Medicare payment for vitamins and metabolic function assay services and must properly submit only valid claims for them. Please review and understand them and apply the medical necessity provisions in the policy within the context of the manual rules. Relevant CMS manual instructions and policies may be found in the following Internet-Only Manuals (IOMs) published on the CMS Web site:

IOM Citations:

- CMS IOM Publication 100-02, Medicare Benefit Policy Manual,
 - Chapter 6, Section 20.4 Outpatient Diagnostic Services
 - Chapter 15, Section 80.1 Clinical Laboratory Services
- CMS IOM Publication 100-03, Medicare National Coverage Determinations (NCD) Manual,
 - Chapter 1, Part 4, Section 230.19 Levocarnitine for use in the Treatment of Carnitine Deficiency in ESRD
 Patients
- CMS IOM Publication 100-04, Medicare Claims Processing Manual,
 - Chapter 16, Laboratory Services
 - Chapter 23, Section 10 Reporting ICD Diagnosis and Procedure codes and Section 40 Clinical Diagnostic
 Laboratory Fee Schedule
- CMS IOM Publication 100-08, Medicare Program Integrity Manual,
 - Chapter 13, Section 13.5.4 Reasonable and Necessary Provision in an LCD

Social Security Act (Title XVIII) Standard References:

- Title XVIII of the Social Security Act, Section 1862(a)(1)(A) states that no Medicare payment shall be made for items or services which are not reasonable and necessary for the diagnosis or treatment of illness or injury.
- Title XVIII of the Social Security Act, Section 1862(a)(7). This section excludes routine physical examinations.

Coverage Guidance

Coverage Indications, Limitations, and/or Medical Necessity

Compliance with the provisions in this policy may be monitored and addressed through post payment data analysis and subsequent medical review audits.

Covered Indications

Medicare generally considers vitamin assay panels (more than one vitamin assay) a screening procedure and therefore, non-covered. Similarly, assays for micronutrient testing for nutritional deficiencies that include multiple tests for vitamins, minerals, antioxidants and various metabolic functions are never necessary. Medicare reimburses for covered clinical laboratory studies that are reasonable and necessary for the diagnosis or treatment of an illness. Many vitamin deficiency problems can be determined from a comprehensive history and physical examination. Any diagnostic evaluation should be targeted at the specific vitamin deficiency suspected and not a general screen. Most vitamin deficiencies are nutritional in origin and may be corrected with supplemented vitamins.

Most vitamin deficiencies are suggested by specific clinical findings. The presence of those specific clinical findings may prompt laboratory testing for evidence of a deficiency of that specific vitamin. Certain other clinical states may also lead to vitamin deficiencies (malabsorption syndromes, etc.).

Limitations:

For Medicare beneficiaries, screening tests are governed by statute. Vitamin or micronutrient testing may not be used for routine screening.

Once a beneficiary has been shown to be vitamin deficient, further testing is medically necessary only to ensure adequate replacement has been accomplished. Thereafter, annual testing may be appropriate depending upon the indication and other mitigating factors.

Notice: This LCD imposes the following limitations to the tests addressed in this LCD. Refer to the companion article Billing and Coding: Assays for Vitamins and Metabolic Function, A56416, for all coding information. These limitations will support automated denials as follows:

- Diagnosis to procedure limitations only for cellular function assays involving stimulation and detection of biomarker
- Frequency limitations** only for:
 - Assay of ascorbic acid
 - Assay of vitamin b-2
 - Assay of vitamin b-1
 - Assay of vitamin e
 - Assay of vitamin a
 - Assay of vitamin k
- Diagnosis to procedure and frequency limitations** for:
 - Vitamin d 25 hydroxy
 - Assay of carnitine
 - Vitamin b-12
 - Vitamin d 1 25-dihydroxy
 - Assay of folic acid serum
 - Assay of homocysteine
 - Assay lipoprotein pla2
 - Assay of vitamin b-6
 - Fibrinogen antigen

**Note: This LCD imposes frequency limitations. Please refer to the Utilization Guidelines section for an outline of the frequency limitations. Frequency limitations do not establish medical necessity for all testing but does reflect how the medical community uses the tests. Patterns of billing will be monitored for potential utilization of these tests for screening purposes, either by use of a single test or multiple tests together.

Notice: Services performed for any given diagnosis must meet all of the indications and limitations stated in this policy, the general requirements for medical necessity as stated in CMS payment policy manuals, any and all existing CMS national coverage determinations, and all Medicare payment rules.

The redetermination process may be utilized for consideration of services performed outside of the reasonable and necessary requirements in this LCD.

Summary of Evidence

N/A

Analysis of Evidence (Rationale for Determination)

General Information

Associated Information

Refer to the Local Coverage Article: Billing and Coding: Assays for Vitamins and Metabolic Function, A56416, for all coding information.

Documentation Requirements

- 1. All documentation must be maintained in the patient's medical record and made available to the contractor upon request.
- 2. Every page of the record must be legible and include appropriate patient identification information (e.g., complete name, dates of service[s]). The documentation must include the legible signature of the physician or non-physician practitioner responsible for and providing the care to the patient.
- 3. The medical record documentation must support the medical necessity of the services as stated in this policy.

Utilization Guidelines

In accordance with CMS Ruling 95-1 (V), utilization of these services should be consistent with locally acceptable standards of practice.

Medicare recognizes certain tests may exceed the stated frequencies. Should a denial occur, additional documentation can be submitted to support medical necessity. Payment for additional tests may be allowed in selected circumstances when, upon medical review, the medical necessity of additional services is demonstrated.

Following a review of utilization data at various percentiles of units billed per year, the following frequency limitations are established and are as follows:

Assay of ascorbic acid, 1 time per year Vitamin d 25 hydroxyl, up to 3 times per year Assay of carnitine, up to 3 times per year

Vitamin b-12, up to 3 times per year

Vitamin d 1 25-dihydroxy, up to 2 times per year

Assay of folic acid serum, up to 3 times per year

Assay of homocysteine, 1 time per year

Assay lipoprotein pla2, 1 time per year

Assay of vitamin b-6, 1 time per year

Assay of vitamin b-2, 1 time per year

Assay of vitamin b-1, 1 time per year

Assay of vitamin e, 1 time per year

Assay of vitamin a, 1 time per year

Assay of vitamin k, 1 time per year

Fibrinogen antigen, up to 3 times per year

Cell function assay w/stim frequencies not determined

Notice: This LCD imposes utilization guideline limitations. Despite Medicare's allowing up to these maximums, each patient's condition and response to treatment must medically warrant the number of services reported for payment. Medicare requires the medical necessity for each service reported to be clearly demonstrated in the patient's medical record. Medicare expects that patients will not routinely require the maximum allowable number of services.

Sources of Information

Contractor is not responsible for the continued viability of websites listed.

Novitas Solutions, Inc. Local Coverage Determination (LCD): Vitamin D Assay Testing (L34888)

Other Contractor Policies

Palmetto GBA Local Coverage Determination (LCD): Assays for Vitamins and Metabolic Function (L33418)

Palmetto GBA Local Coverage Determination (LCD): MoIDX: Biomarkers in Cardiovascular Risk Assessment (L36129)

Noridian Healthcare Solutions, LLC Local Coverage Determination (LCD): Non Covered Services (L36219)

National Government Services, LCD on Vitamin D assay testing (L29510).

Noridian Local Medical Review Policy, "Folic Acid, Serum."

Contractor Medical Directors

Bibliography

- 1. Albert MA, et al. The Effect of Statin Therapy on Lipoprotein Associated Phospholipase A2 Levels. *Atherosclerosis* 2005; 182: pp. 193–198.
- 2. Anderson, JL. Lipoprotein-Associated Phospholipid A2: An Independent Predictor of Coronary Artery Disease Events in Primary and Secondary Prevention. *Am J Cardiol* 2008 Jun 16; 101(12A): 23F-33F.
- 3. American College of Cardiology and American Heart Association, ACC/AHA 2002 Guideline Update for Management of Patients with Chronic Stable Angina, *Circulation*, 2003, 107: pp. 1–10.
- 4. Centers for Medicare & Medicaid Services, Levocarnitine for Use in the Treatment of Carnitine Deficiency in ESRD Patients, Program Memorandum Transmittal AB-02-165, November 8, 2002.
- 5. Colley KJ, Wolfert RL, Cobble ME. Lipoprotein associated phospholipase A2: role in atherosclerosis and utility as a biomarker for cardiovascular risk. *EPMA J.* 2011 Mar;2(1):27-38.
- Lp-PLA(2) Studies Collaboration, Thompson A, Gao P, et al. Lipoprotein-associated phospholipase A2 and risk of coronary disease, stroke, and mortality: collaborative analysis of 32 prospective studies. *Lancet*. 2010 May 1;375(9725):1536-44.
- 7. Davidson MH, Corson MA, Alberts MJ, et al. Consensus Panel Recommendation For Incorporating Lipoprotein-Associated Phospholipase A2 Testing into Cardiovascular Disease Risk Assessment Guidelines. *Am J Cardiol*. 2008 Jun 16;101(12A):51F-57F.
- 8. Epps KC, Wilensky RL. Lp-PLA2- a novel risk factor for high-risk coronary and carotid artery disease. *J Intern Med*. 2011 Jan;269(1):94-106.
- 9. Federal Register, Vol. 66, No. 226, November 23, 2001, pp. 58788-58890.
- 10. Hackam, DG, Anand SS. Emerging Risk Factors for Atherosclerotic Vascular Disease. *JAMA*, 2003, 290: pp. 932–940.
- 11. Holick, MF et al. Evaluation, Treatment, and Prevention of Vitamin D Deficiency: An Endocrine Society Clinical Practice Guidelines. *Journal of Clinical Endocrinology and Metabolism* 2011 Jan; 96(7):1911-1930.
- 12. Homocysteine Studies Collaboration. Homocysteine and Risk of Ischemic Heart Disease and Stroke: A

Created on 07/21/2022. Page 6 of 10

- Metaanalysis. JAMA 288 (16): pp. 2015-22, 2002.
- 13. Hypophosphatasia. Review. https://ghr.nlm.nih.gov/condition/hypophosphatasia
- 14. Jacobs DS, DeMott WR, Oxley DK. Jacobs and DeMott. *Laboratory Test Handbook with Key Word Index*, 5th Edition.
- 15. Kelly JL et al. Vitamin D and Non-Hodgkin Lymphoma Risk in Adults: A Review. *Clinical Invest*. 2009 November; 27(9): 942-951.
- 16. Kowalshi RJ, et al. Assessing Relative Risks of Infection and Rejection: A Meta-Analysis Using an Immune Function Assay (manuscript accepted for publication in *Transplantation*, April 25, 2006).
- 17. Pasternak RC, Abrams J, Greenland P, et al. 34th Bethesda Conference: Task Force #1--Identification of Coronary Heart Disease Risk: Is There a Detection Gap? *J Am Coll Cardiol*. 2003 Jun 4;41(11):1863-74.
- 18. Pitt B, Waters D, Brown WV, et al. Aggressive lipid-lowering therapy compared with angioplasty in stable coronary artery disease. Atorvastatin versus Revascularization Treatment Investigators. *N Engl J Med*. 1999 Jul 8;341(2):70-6.
- 19. Tikkanen MJ, Szarek M, Fayyad R, et al. Total Cardiovascular Disease Burden: Comparing Intensive With Moderate Statin Therapy Insights From the IDEAL (Incremental Decrease in End Points Through Aggressive Lipid Lowering) Trial. *J Am Coll Cardiol*. 2009 Dec 15;54(25):2353-7.
- 20. Timbie JW, Hayward RA, Vijan S. Variation in the Net Benefit Of Aggressive Cardiovascular Risk Factor Control Across the US Population Of Patients With Diabetes Mellitus. *Arch Intern Med.* 2010 Jun 28;170(12):1037-44.

Revision History Information

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASONS FOR CHANGE
07/01/2020	R14	LCD revised and published on June 25, 2020 effective for dates of service on and after 07/01/2020, as a non-discretionary update to remove the list of non-covered services in the limitations section. Minor formatting changes have been made.	Other (Revised in response to CMS direction)
10/17/2019	R13	LCD revised and published on 10/17/2019. Consistent with CMS Change Request 10901, the entire coding section has been removed from the LCD and placed into the related Billing and Coding Article, A56416. All CPT codes and coding information within the text of the LCD has been placed in the Billing and Coding Article.	Other (CMS Change Request 10901)
03/28/2019	R12	LCD revised and published on 03/28/2019. The IOM Citations section was revised to add applicable manual references and to remove the reference to NCCI since coding and billing information has been moved to the companion article. All billing and coding related information has been moved to companion article Billing and Coding: Assays for Vitamins and Metabolic Function, A56416, consistent with CMS Change Request (CR) 10901. References listed in the Sources section of the LCD have been moved to the Bibliography section.	Other (Change in LCD process per CMS CR 10901)

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASONS FOR CHANGE
		Links have been added to the companion article, A56416, and NCD 230.19.	
10/01/2018	R11	LCD revised and published on 10/25/2018 effective for dates of service on and after 10/01/2018 to reflect the Annual ICD-10-CM Code Updates. The following ICD-10-CM codes have been deleted and therefore removed from the LCD: E78.4 and M79.1. The following ICD-10-CM codes have been added to the LCD Group 1 codes: M79.11, M79.12, and M79.18. The following ICD-10-CM code has been added to the LCD Group 7 codes: E78.49. The following ICD-10-CM code has undergone a descriptor change: Z68.43. Per LCD annual review, updated the SSA references in the "CMS National Coverage Policy" section and expanded the following ranges in Group 1 for diagnosis codes that were previously listed in a ranged format (without a change in	Revisions Due To ICD-10-CM Code Changes Other (Annual Review)
		coverage content): B38.1 – B38.9, B39.1 – B39.9, C82.00 – C82.99, and Z68.30 – Z68.45. At this time 21st Century Cures Act will apply to new and	
		revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; therefore, not all the fields included on the LCD are applicable as noted in this policy.	
10/01/2017	R10	LCD revised and published on 10/05/2017 effective for dates of service on and after 10/01/2017 to reflect the Annual ICD-10-CM Code Updates. The following ICD-10-CM codes have undergone a descriptor change: Group 1 codes M33.00, M33.01, M33.02, M33.09, M33.10, M33.11, M33.12, and M33.19.	Revisions Due To ICD-10-CM Code Changes
		At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; therefore, not all the fields included on the LCD are applicable as noted in this policy.	
02/03/2017	R9	LCD revised and published on 04/13/2017 effective for dates of service on and after 02/03/2017 to add ICD-10 code M85.80 as a covered diagnosis to the Group 1 codes. Reformatted the CPT code groups to align with their respective ICD-10 code groups. Added short descriptors to the CPT Codes in the Utilization Guidelines.	Other (Inquiry Clarification)

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASONS FOR CHANGE	
10/01/2016	R8	LCD revised and published on 10/13/2016 effective for dates of service on and after 10/01/2016 to reflect the ICD-10 Annual Code Updates. The following ICD-10 code has been added to the LCD Group 1 codes: K90.49.	 Revisions Due To ICD-10-CM Code Changes 	
10/01/2016	R7	LCD revised and published on 09/29/2016 effective for dates of service on and after 10/01/2016 to reflect the ICD-10 Annual Code Updates. The following ICD-10 code(s) have been deleted and therefore removed from the LCD: Group 1 code K90.4, Group 3 code K90.4 and Group 7 code E78.0. The following ICD-10 code(s) have been added to the LCD: Group 3 code K90.49 and Group 7 codes E78.00 and E78.01.	Revisions Due To ICD-10-CM Code Changes	
08/04/2016	R6	The following ICD-10-CM diagnoses codes were added to the Group 7 codes as covered diagnoses: E11.65, E11.9, E13.9, E78.0, E78.1, E78.2, E78.3, and E78.4.	Other (Clarification)	
08/04/2016	R5	LCD posted for notice on 06/16/2016. LCD becomes effective for dates of service on and after 08/04/2016.	Aberrant Local Utilization	
04/07/2016	R4	01/22/2016 DL34914 Draft LCD posted for comment. LCD revised and published on 04/14/2016 effective for dates of service on and after 04/07/2016 to remove CPT code 86141 (hsCRP) from this LCD. Refer to LCD L34856 for coverage of CPT code 86141.	Other (Clarification)	
10/01/2015	R3	LCD revised and published on 02/11/2016 effective for dates of service on and after 10/01/2015 to add several ICD-10 codes as covered diagnoses. E55.0 added to Group 1, E44.0; F03.90; G30.0; G30.1; G30.8; G30.9; K14.0; K31.8; K50.012-K50.014; K50.112-K50.114; K50.812-K50.814; K50.912-K50.914; R20.0-R20.9 and R41.82 added to Group 3, D64.0-D64.3 and K14.0 added to Group 4, D69.49 added to Group 5, Z94.3 added to Group 6, E11.65; E11.9; E13.9; E78.0-E78.5; I25.110-I25.119 and I25.84 added to Group 7, and E78.0 added to Group 8.	Other (Inquiry, Clarification)	
10/01/2015	R2	LCD revised and published 10/29/2015 effective for dates of service 10/01/2015 and after to add additional ICD-10 codes with higher specificity.	Other (Clarification)	
10/01/2015	R1	LCD revised and published on 10/08/2015 to remove CPT code 86353 from the Diagnosis Code Group 6. Notation for NCD 190.8 added. • NCD Supplementation		

Associated Documents

Attachments

N/A

Related Local Coverage Documents

Articles

A56416 - Billing and Coding: Assays for Vitamins and Metabolic Function

Related National Coverage Documents

N/A

Public Versions

UPDATED ON	EFFECTIVE DATES	STATUS		
06/19/2020	07/01/2020 - N/A	Currently in Effect (This Version)		
Some older versions have been archived. Please visit the MCD Archive Site to retrieve them.				

Keywords

N/A