

Local Coverage Determination (LCD): MoIDX: HLA-DQB1*06:02 Testing for Narcolepsy (L37003)

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Contractor Information

Contractor Name	Contract Type	Contract Number	Jurisdiction	State(s)
Wisconsin Physicians Service Insurance Corporation	MAC - Part A	05101 - MAC A	J - 05	Iowa
Wisconsin Physicians Service Insurance Corporation	MAC - Part B	05102 - MAC B	J - 05	Iowa
Wisconsin Physicians Service Insurance Corporation	MAC - Part A	05201 - MAC A	J - 05	Kansas
Wisconsin Physicians Service Insurance Corporation	MAC - Part B	05202 - MAC B	J - 05	Kansas
Wisconsin Physicians Service Insurance Corporation	MAC - Part A	05301 - MAC A	J - 05	Missouri - Entire State
Wisconsin Physicians Service Insurance Corporation	MAC - Part B	05302 - MAC B	J - 05	Missouri - Entire State
Wisconsin Physicians Service Insurance Corporation	MAC - Part A	05401 - MAC A	J - 05	Nebraska
Wisconsin Physicians Service Insurance Corporation	MAC - Part B	05402 - MAC B	J - 05	Nebraska
				Alaska
				Alabama
				Arkansas
				Arizona
				Connecticut
				Florida
				Georgia
				Iowa
				Idaho
				Illinois
				Indiana
				Kansas
				Kentucky
				Louisiana
				Massachusetts
				Maine
Wisconsin Physicians Service Insurance Corporation	MAC - Part A	05901 - MAC A	J - 05	Michigan
				Minnesota
				Missouri - Entire State
				Mississippi
				Montana
				North Carolina
				North Dakota
				Nebraska
				New Hampshire
				New Jersey
				Ohio
				Oregon
				Rhode Island
				South Carolina
				South Dakota
				Tennessee
				Utah

Contractor Name	Contract Type	Contract Number	Jurisdiction	State(s)
Wisconsin Physicians Service Insurance Corporation	MAC - Part A	08101 - MAC A	J - 08	Virginia Virgin Islands Vermont Washington Wisconsin West Virginia Wyoming
Wisconsin Physicians Service Insurance Corporation	MAC - Part B	08102 - MAC B	J - 08	Indiana
Wisconsin Physicians Service Insurance Corporation	MAC - Part A	08201 - MAC A	J - 08	Michigan
Wisconsin Physicians Service Insurance Corporation	MAC - Part B	08202 - MAC B	J - 08	Michigan
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LCD Information

Document Information

LCD ID: L37003
Original Effective Date: For services performed on or after 07/17/2017

LCD Title: MolDX: HLA-DQB1*06:02 Testing for Narcolepsy
Revision Effective Date: N/A

Proposed LCD in Comment Period: N/A
Revision Ending Date: N/A

Source Proposed LCD: [DL37003](#)
Retirement Date: N/A

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Notice Period End Date: 07/16/2017

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CMS National Coverage Policy Title XVIII of the Social Security Act (SSA), §1862(a)(1)(A), states that no Medicare payment shall be made for items or services that "are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member."

Title XVIII of the Social Security Act, §1833(e), prohibits Medicare payment for any claim lacking the necessary documentation to process the claim.

42 Code of Federal Regulations (CFR) §410.32 Diagnostic x-ray tests, diagnostic laboratory tests, and other diagnostic tests: Conditions.

CMS Internet Online Manual Pub. 100-02 (Medicare Benefit Policy Manual), Chapter 15, Section 80, "Requirements for Diagnostic X-Ray, Diagnostic Laboratory, and Other Diagnostic Tests"

CMS Internet-Only Manuals, Publication 100-04, Medicare Claims Processing Manual, Chapter 16, §50.5 Jurisdiction of Laboratory Claims, 60.12 Independent Laboratory Specimen Drawing, 60.2. Travel Allowance.

CMS Internet Online Manual Pub. 100-04 (Medicare Claims Processing Manual), Chapter 23 (Section 10) "Reporting ICD Diagnosis and Procedure Codes"

Coverage Guidance

Coverage Indications, Limitations, and/or Medical Necessity

Indications and Limitations of Coverage

Based upon currently available information, HLA-DQB1*06:02 typing (81383) for the diagnosis or management of narcolepsy is considered experimental/investigational/unproven for all populations. Although research suggests a strong association between HLA-DQB1*06:02 and narcolepsy risk, HLA-DQB1*06:02 typing is insufficient to confirm a diagnosis of narcolepsy, rule out a diagnosis of narcolepsy or quantify risk for narcolepsy. Therefore, at this time there is no clinical utility for genetic testing or HLA-DQB1*06:02 typing in the diagnosis or treatment of narcolepsy.

Background

Narcolepsy is a sleep disorder characterized by excessive daytime sleepiness, cataplexy (sudden loss of voluntary muscle tone), and uncontrollable sleep episodes. Most cases of narcolepsy are sporadic, with symptoms beginning around the time of adolescence.

According to the International Classification of Sleep Disorders, Third Edition (ICSD-3) and the Diagnostic and Statistical Manual of Mental Disorder, Fifth Edition (DSM-5), narcolepsy is diagnosed by a combination of physical exam, medical history, polysomnogram, multiple sleep latency testing (MSLT), and low CSF hypocretin-1 levels. Current recommended treatment options include stimulants and antidepressants. At this time, treatment is aimed towards the control of symptoms and is not curative.¹²

Narcolepsy has a multifactorial etiology, likely caused by the interaction between genetic risk factors and environmental exposures. Research efforts to identify the genetic contributors to narcolepsy have focused on an association between certain human leukocyte antigen (HLA) haplotypes and narcolepsy risk. The HLA complex encodes greater than 200 genes responsible for the recognition of foreign antigens. These genes are highly polymorphic, and certain alleles have long been known to confer risk for autoimmune disorders.

A variation of the HLA-DQB1 gene called HLA-DQB1*06:02 has been strongly associated with narcolepsy, particularly in individuals who also have cataplexy and a loss of hypocretins. Several genetic association studies in ethnically diverse populations have found a robust association between narcolepsy and the HLA-DQB1*06:02 allele. However, 15 to 25% of unaffected individuals in the general population also carry this risk haplotype, suggesting that it is necessary but not sufficient for the development of narcolepsy.⁶ Additionally, persons with narcolepsy and cataplexy have been identified without the HLA-DQB1*06:02 marker.⁴ More recent studies further

suggest that predisposition to narcolepsy may be the result of complex genetic associations between multiple risk alleles.¹¹

Despite multiple studies replicating the association between HLA-DQB1*06:02 and narcolepsy in different ethnic groups, the overall contribution of HLA variation to disease risk is low. Monozygotic twin studies have shown only partial concordance (25-31%), indicating that environmental factors play a large role in the etiology of narcolepsy.⁸ Recent studies have suggested that exposure to streptococcus, H1N1, and the H1N1 vaccine may also increase the risk for narcolepsy, specifically among individuals with the HLA-DQB1*06:02 allele.^{3,14,4}

Although research suggests a strong association between HLA-DQB1*06:02 and narcolepsy risk, at this time there is no evidence for any diagnostic utility of HLA typing.⁵

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[Coding Information](#)

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

N/A

Revenue Codes:

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory. Unless specified in the policy, services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

N/A

N/A

CPT/HCPCS Codes

Group 1 Paragraph: N/A

Group 1 Codes:

81383 HLA CLASS II TYPING, HIGH RESOLUTION (IE, ALLELES OR ALLELE GROUPS); ONE ALLELE OR ALLELE GROUP (EG, HLA-DQB1*06:02P), EACH

ICD-10 Codes that Support Medical Necessity

Group 1 Paragraph: N/A

Group 1 Codes:

ICD-10 Codes Description

XX000 Not Applicable

ICD-10 Codes that DO NOT Support Medical Necessity

Group 1 Paragraph: N/A

Group 1 Codes:

ICD-10 Codes Description

G47.411	Narcolepsy with cataplexy
G47.419	Narcolepsy without cataplexy
G47.421	Narcolepsy in conditions classified elsewhere with cataplexy
G47.429	Narcolepsy in conditions classified elsewhere without cataplexy

ICD-10 Additional Information [Back to Top](#)

General Information

Associated Information

Documentation Requirements

Sources of Information and Basis for Decision

1. American Academy of Sleep Medicine. The International Classification of Sleep Disorders. 2014.3rd ed.
2. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing. 2013.
3. Aran A, Lin L, Nevsimalova S, et al. Elevated anti-streptococcal antibodies in patients with recent narcolepsy onset. *Sleep*. 2009 32:979-83.
4. Han F, Lin L, Schormair B, et al. HLA DQB1*06:02 negative narcolepsy with hypocretin/orexin deficiency. *Sleep*. 2014.1;37(10):1601-8.
5. Hong SC, Lin L, Jeong JH, et al. A study of the diagnostic utility of HLA typing, CSF hypocretin-1 measurements, and MSLT testing for the diagnosis of narcolepsy in 163 Korean patients with unexplained excessive daytime sleepiness. *Sleep*. 2006. 29(11):1429-38.
6. Hor, H., Kutalik, Z., Dauvilliers, Y., et al. Genome-wide association study identifies new HLA class II haplotypes strongly protective against narcolepsy. *Nature Genet*. 2010. 42: 786-89,. Note: Erratum: *Nature Genet*. 43: 388 only, 2011.
7. Lin L, Hungs M, Mignot E. Narcolepsy and the HLA region. *J Neuroimmunol*. 2001. 2;117(1-2):9-20.
8. Mignot E. Genetic and familial aspects of narcolepsy. *Neurology*. 1998. 50(2 Suppl 1):S16-22.
9. Mignot, E., Lin, L., Rogers, W., et al. Complex HLA-DR and -DQ interactions confer risk of narcolepsy-cataplexy in three ethnic groups. *Am. J. Hum. Genet*. 2001. 68: 686-699.
10. Mignot, E., Hayduk, R., Black, J. et al. HLA DQB1*0602 is associated with cataplexy in 509 narcoleptic patients. *Sleep* 1997. 20: 1012-20.
11. Miyagawa T, Toyoda H, Hirataka A, et al. New susceptibility variants to narcolepsy identified in HLA class II region. *Hum Mol Genet*. 2015. 1;24(3):891-8.
12. Morgenthaler TI, Kapur VK, Brown T, et al. Standards of Practice Committee of the American Academy of Sleep Medicine. Practice parameters for the treatment of narcolepsy and other hypersomnias of central origin. *Sleep*. 2007. 30(12):1705-11.
13. Online Mendelian Inheritance in Man (OMIM). Narcolepsy 1. #161400. Last updated 11/13/2012.
14. Singh AK, Mahlios J, Mignot E. Genetic association, seasonal infections and autoimmune basis of narcolepsy. *J Autoimmun*. 2013. 43:26-31.
15. Tafti M, Hor H, Dauvilliers Y, et al. DQB1 locus alone explains most of the risk and protection in narcolepsy with cataplexy in Europe. *Sleep*. 2014. 37:19-25.

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Revision History Information

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Associated Documents

Attachments N/A

Related Local Coverage Documents Article(s) [A55536 - Response to Comments: MoIDX: HLA-DQB1*06:02 Testing for Narcolepsy \(DL37003\)](#), LCD(s) [DL37003 - MoIDX: HLA-DQB1*06:02 Testing for Narcolepsy](#)

Related National Coverage Documents N/A

Public Version(s) Updated on 05/15/2017 with effective dates 07/17/2017 - N/A [Back to Top](#)

Keywords

N/A Read the [LCD Disclaimer](#) [Back to Top](#)