

# **Genetic Testing for Alzheimer's disease**

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## **Definitions**

Alzheimer's disease (AD) is a progressive and fatal form of dementia. AD can be idiopathic but is commonly associated with a family history as 40% of patients with AD have a least one other afflicted first-degree relative. Genes associated with AD include Amyloid AB precursor gene, apolipoprotein E gene, Presenilin 1 gene and Presenilin 2 gene. Genetic mutations are rare causes of AD and majority of cases present as late-onset. AD is clinically diagnosed by excluding other causes of senile dementia.

## Guideline

Genetic testing for Alzheimer's disease is considered investigational and not medically necessary for all indications of the disease.

# **Applicable Procedure Codes**

81401	Molecular pathology procedure, Level 2 (eg, 2-10 SNPs, 1 methylated variant, or 1 somatic variant [typically using nonsequencing target variant analysis], or detection of a dynamic mutation disorder/triplet repeat) LINC00518 (long intergenic non-protein coding RNA 518) (eg, melanoma), expression analysis PRAME (preferentially expressed antigen in melanoma) (eg, melanoma), expression analysis (Revision eff. 01/01/2018)
81405	Molecular pathology procedure, Level 6 (eg, analysis of 6-10 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 11-25 exons, regionally targeted cytogenomic array analysis) CPOX (coproporphyrinogen oxidase) (eg, hereditary coproporphyria), full gene sequence CTRC (chymotrypsin C) (eg, hereditary pancreatitis), full gene sequence PKLR (pyruvate kinase, liver and RBC) (eg, pyruvate kinase deficiency), full gene sequence (Revision eff. 01/01/2018)
81406	Molecular pathology procedure, Level 7 (eg, analysis of 11-25 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 26-50 exons, cytogenomic array analysis for neoplasia) ANOS1 (anosmin-1) (eg, Kallmann syndrome 1), full gene sequence HMBS (hydroxymethylbilane synthase) (eg, acute intermittent porphyria), full gene sequence PPOX (protoporphyrinogen oxidase) (eg, variegate porphyria), full gene sequence (Revision eff. 01/01/2018)
83520	Immunoassay for analyte other than infectious agent antibody or infectious agent antigen; quantitative, not otherwise specified
84999	Unlisted chemistry procedure

S3852

DNA analysis for APOE epsilon 4 allele for susceptibility to Alzheimer's disease

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