DeanHealthPlan
A member of SSM Health

Coverage of any medical intervention discussed in a Dean Health Plan medical policy is subject to the limitations and exclusions outlined in the member's benefit certificate or policy and to applicable state and/or federal laws.

Genetic Testing for Hereditary Cardiac Disease and Arrhythmias MP9472

Covered Service:	Yes
Prior Authorization Required	Yes
Additional Information:	Genetic testing is covered for a Dean Health Plan member if the test results provide a direct medical benefit or guides reproductive decision-making for the Dean Health Plan member. See Genetic Testing MP9012 for additional information. Pre- and post-test genetic counseling is required for any individual undergoing genetic testing for the hereditary cardiomyopathies and arrhythmias. For ASO members pre and post-genetic counseling is not required. Please reference the ASO Summary Plan Description (SPD). A first-degree relative is defined as an individual's parents, full siblings, and children. A second-degree relative is defined as an individual's grandparents, grandchildren, aunts, uncles, nephews, nieces and half-siblings. A third-degree relative is defined as first cousins, great-aunts, great-uncles, great-grandchildren, or great-grandparents.
Medicare Policy:	Prior authorization is dependent on the member's Medicare coverage. Prior authorization is not required for Medicare Cost (Dean Care Gold) and Medicare Supplement (Select) when this service is provided by participating providers. Prior authorization is required if a member has Medicare primary and Dean Health Plan secondary coverage. This policy is not applicable to our Medicare Replacement products.
BadgerCare Plus Policy:	Dean Health Plan covers when BadgerCare Plus also covers the benefit. Please refer to Forward Health: https://www.forwardhealth.wi.gov/WIPortal/Default.aspx

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Dean Health Plan Medical Policy:

1.0 **Confirmatory (Diagnostic) Genetic Testing** for hereditary arrhythmias and/or cardiomyopathies (familial dilated cardiomyopathy, familial hypertrophic cardiomyopathy) **requires prior authorization** through the Health Services Division and the testing is considered medically necessary when **ALL** of the following criteria are met:

1.1 Results from testing will alter medical management for the individual being tested (e.g. implantable or wearable cardioverter defibrillator) or will directly impact the medical management of a blood relative who is covered under the same plan; **AND**

1.2 The individual has a suspected or confirmed clinical diagnosis of a specific hereditary cardiomyopathy and/or arrhythmia; **AND**

1.3 The requested testing is targeted to a specific subset of genes related to the disease specific condition (e.g. hypertrophic cardiomyopathy (HCM) or arrhythmogenic right ventricular cardiomyopathy/dysplasia). Examples may include:

1.3.1 DMD and TAZ mutation screening in individual from family with definitive or suspected X-linked dilated cardiomyopathy

1.3.2 LMNA and SCN5A mutation screening in individual with diagnosis of idiopathic dilated cardiomyopathy accompanied by significant conduction system disease or arrhythmias and/or family history of sudden cardiac death

2.0 **Arrhythmogenic Right Ventricular Dysplasia/Cardiomyopathy ARVC** gene testing **requires prior authorization** through the Health Services Division and is considered medically necessary for **ANY** of the following:

2.1 Confirmation of diagnosis of arrhythmogenic right ventricular cardiomyopathy/dysplasia, when diagnosis cannot otherwise be confirmed by Task Force Criteria

2.2 Identification of pathogenic mutation(s) in individual meeting Task Force Criteria for borderline or definite arrhythmogenic right ventricular cardiomyopathy

3.0 **Brugada Syndrome Channelopathy** gene testing **requires prior authorization** through the Health Services Division and is considered medically necessary for **ANY** of the following:

3.1 Confirmation of diagnosis in patient with unclear ECG findings, when family history or other clinical findings are insufficient

3.2 Need to establish disease-causing mutation in patient with confirmed diagnosis

3.3 Probands with confirmed Brugada syndrome with at-risk relatives.

4.0 **Testing of Unaffected Individuals**: Single-site gene testing for a known familial mutation **requires prior authorization** through the Health Services Division and is medically necessary for at risk-asymptomatic or for predictive testing in a first- or second- degree relative when the individual meets general criteria for hereditary genetic testing (1.1 and 1.3) for the following:

4.1 Familial Dilated Hypertrophic Cardiomyopathy, Nonsyndromic

4.2 Familial Hypertrophic Cardiomyopathy, Sarcomere

4.3 Catecholaminergic Polymorphic Ventricular Tachycardia Brugada Syndrome Channelopathy

4.4 Arrhythmogenic right ventricular cardiomyopathy/dysplasia

4.5 Left ventricular non-compaction cardiomyopathy

4.6 Restrictive cardiomyopathy

4.7 Long QT Syndrome

Long QT Syndrome

5.0 **Long QT Syndrome (LQTS)** genetic testing **requires prior authorization** through the Health Services Division and is considered medically necessary when the individual meets general criteria for hereditary cardiac genetic testing (1.0) **AND** has **ANY** of the following indications:

5.1 Confirmation of diagnosis in asymptomatic patient with prolonged corrected QT interval on resting

5.2 Confirmation of diagnosis in patient with suggestive but not confirmatory signs or symptoms

5.3 Establishment of a disease-causing mutation in patient with confirmed diagnosis.

5.4 Predictive testing for at-risk asymptomatic first-degree relative when disease-causing mutation has been identified in affected family member

6.0 **Catecholaminergic Polymorphic Ventricular Tachycardia** gene testing requires prior authorization through the Health Services Division and is considered medically necessary for **ANY** of the following:

6.1 Catecholaminergic polymorphic ventricular tachycardia, suspected, due to suggestive clinical features (e.g. exercise, catecholamine-, or emotion-inducted PVT or ventricular fibrillation, occurring in a structurally normal heart)

6.2 CASQ2 or TRDN carrier testing for at-risk relatives if disease-causing mutation(s) in family are known

6.3 Predictive testing for at-risk symptomatic first-degree relative, when disease-

disease causing mutation has been identified in affected family member

6.4 First-degree relative of young patient with unexplained sudden cardiac death

7.0 **Non-Covered Tests**: The following genetic tests are considered experimental and investigational, and therefore not medically necessary:

7.1 Broad “multi-condition” panel testing (e.g., pan-cardio panel, arrhythmia panel)

7.2 Genetic testing for Short QT syndrome and atrial fibrillation

7.3 Whole genome sequencing for cardiovascular disorders

8.0 Genetic testing for hereditary cardiac conditions in the general population is considered not medically necessary and therefore not covered including but not limited to:

8.1 Coronary Artery Disease 9p21 Allele

8.2 Coronary Artery Disease Gene Expression Testing

8.3 Coronary Artery Disease KIF6 Gene

8.4 MicroRNA Detection Heart Failure

9.0 All other indications not listed above are considered experimental and investigational, and therefore are not medically necessary.

CPT/HCPCS Codes Related to MP9472

* The list of codes (and their descriptors, if any) is provided for informational purposes only and may not be all inclusive or current. Listing of a code in this medical policy does not imply that the service described by the code is a covered or non-covered service. Benefit coverage for any service is determined by the member’s policy of health coverage with Dean Health Plan. Inclusion of a code above does not imply any right to reimbursement or guarantee claim payment. Other medical policies may also apply. **This list may not be all-inclusive.**

CPT Code	Description
0119U	Cardiology, ceramides by liquid chromatography-tandem mass spectrometry, plasma, quantitative report with risk score for major cardiovascular events
0237U	Cardiac ion channelopathies (eg, Brugada syndrome, long QT syndrome, short QT syndrome, catecholaminergic polymorphic ventricular tachycardia), genomic sequence analysis panel including ANK2, CASQ2, CAV3, KCNE1, KCNE2, KCNH2, KCNJ2, KCNQ1, RYR2, and SCN5A, including small sequence changes in exonic and intronic regions, deletions, duplications, mobile element insertions, and variants in non-uniquely mappable regions

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CPT Code	Description
81403	Molecular Pathology Procedure Level 4
81404	Molecular Pathology Procedure Level 5
81405	Molecular Pathology Procedure Level 6
81406	Molecular Pathology Procedure Level 7
81407	Molecular Pathology Procedure Level 8
81408	Molecular Pathology Procedure Level 9
81413	Cardiac ion channelopathies (e.g., Brugada syndrome, long QT syndrome, short QT syndrome, catecholaminergic polymorphic ventricular tachycardia); genomic sequence analysis panel, must include sequencing of at least 10 genes, including ANK2, CASQ2, CAV3, KCNE1, KCNE2, KCNH2, KCNJ2, KCNQ1, RYR2, and SCN5A
81414	Cardiac ion channelopathies (e.g., Brugada syndrome, long QT syndrome, short QT syndrome, catecholaminergic polymorphic ventricular tachycardia); duplication/deletion gene analysis panel, must include analysis of at least 2 genes, including KCNH2 and KCNQ1
81425	Genome (e.g. unexplained constitutional or heritable disorder or syndrome);
81426	Genome (e.g. unexplained constitutional or heritable disorder or syndrome); sequence analysis, each comparator genome (e.g., parents, siblings)
81427	Genome (e.g. unexplained constitutional or heritable disorder or syndrome); re-evaluation of previously obtained genome sequence (
81439	Inherited cardiomyopathy (e.g., hypertrophic cardiomyopathy, dilated cardiomyopathy, arrhythmogenic right ventricular cardiomyopathy) genomic sequence analysis panel, must include sequencing of at least 5 genes, including DSG2, MYBPC3, MYH7, PKP2, and TTN
81479	Unlisted molecular pathology procedure
81493	Coronary artery disease, mRNA, gene expression profiling by real-time RT-PCR of 23 genes, utilizing whole peripheral blood, algorithm reported as a risk score (e.g. Corus CAD, CardioDx)
81599	Unlisted multianalyte assay with algorithmic analysis
0237U	Cardiac ion channelopathies (eg, Brugada syndrome, long QT syndrome, short QT syndrome, catecholaminergic polymorphic ventricular tachycardia), genomic sequence analysis panel including ANK2, CASQ2, CAV3, KCNE1, KCNE2, KCNH2, KCNJ2, KCNQ1, RYR2, and SCN5A, including small sequence changes in exonic and intronic regions, deletions, duplications, mobile element insertions, and variants in non-uniquely mappable regions
S3861	Genetic testing, sodium channel, voltage-gated, type V, alpha subunit (SCN5A) and variants for suspected Brugada Syndrome

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CPT Code	Description
S3865	Comprehensive gene sequence analysis for hypertrophic cardiomyopathy
S3866	Genetic analysis for a specific gene mutation for hypertrophic cardiomyopathy (HCM) in an individual with a known HCM mutation in the family

	Committee/Source	Date(s)
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