Genetic testing: hematologic disorders (non-cancerous)

These services may or may not be covered by your HealthPartners plan. Please see your plan documents for your specific coverage information. If there is a difference between this general information and your plan documents, your plan documents will be used to determine your coverage.

Administrative Process

Prior authorization is not required for the following services:

- Factor V Leiden (F5) and Prothrombin (F2) Variant Analysis for Inherited Thrombophilia (81240)
- F5 (Factor V Leiden) Variant Analysis (81241)
- HBA1/HBA2 and/or HBB variant analysis (81257, 81529, 81269, 81363, 81364)
- F9 variant analysis for hemophilia (81238)
- G6PD variant analysis

Prior authorization is required for genetic testing for the following:

- F8 variant analysis for hemophilia
- GP1BA and/or VWF Variant Analysis
- Other Covered Hematologic (non-cancerous) Disorders
- Testing that is associated with a procedure code listed in “Box A”, below

G6PD variant analysis to confirm or establish a diagnosis of glucose-6-phosphate dehydrogenase deficiency is considered investigational/experimental and therefore not covered

GP1BA and/or VWF variant analysis to confirm or establish a diagnosis of von-Willebrand disease is considered investigational/experimental and therefore not covered

Box A: Genetic testing procedure codes that require prior authorization
Molecular pathology procedures, Tier 2 or unlisted (CPT 81400-81408, 81479)
Unlisted multianalyte assays (CPT 81599)
Any other listed or unlisted laboratory/pathology CPT code when it is used in association with a genetic test.

Tests that require prior authorization will be reviewed for medical necessity of the testing as a whole. That is, a single coverage decision will apply to all of the tests, services, and/or procedure codes associated with the genetic test, whether they are requested/billed together or separately.

Policy Reference Table

If available, codes are listed below for informational purposes only, and do not guarantee member coverage or provider reimbursement. The list may not be all-inclusive.

Coverage Criteria Sections	Example Tests (Labs)	Common CPT Codes	Common ICD Codes
Inherited Thrombophilia			
Factor V Leiden (*F5*) and Prothrombin (*F2*) Variant Analysis for Inherited Thrombophilia	Factor V (Leiden) Mutation Analysis (Quest Diagnostics)	81241	D68.51, D68.2, D68.59, R79.1, Z86.2, I82.90
	Prothrombin (Factor II) 20210G>A Mutation Analysis (Quest Diagnostics)	81240	D68.52, D68.2, D68.59, R79.1, Z.86.2, I82.90
Hemoglobinopathies			
HBA1/HBA2 and/or *HBB* Variant Analysis	Alpha Thalassemia Panel (Prevention Genetics, part of Exact Sciences)	81259, 81269	D56.0, D56.9, D53.9, R70.1, D56.3, D56.8, Z86.2
	Alpha-Globin Common Mutation Analysis (Quest Diagnostics)	81257	

	Beta Globin (HBB) Sequencing (ARUP Laboratories)	81364	D57, D56.1, D64.9
	Beta Globin Gene Dosage Analysis (Quest Diagnostics)	81363	
Hemophilia			
Factor VIII (F8) and Factor IX (F9) Variant Analysis for Hemophilia A and B	Factor VIII (Hemophilia A) Genetic Analysis (Labcorp)	81403, 81406, 81407	D66, I62.9, M25, N92.2, R04.0, R31
	Factor IX (Hemophilia B) Genetic Analysis (Labcorp)	81238	D67, I62.9, M25, N92.2, R04.0, R31
Glucose-6-Phosphate Dehydrogenase (*G6PD*) Deficiency			
G6PD Variant Analysis	G6PD Targeted Variant - Single Test (GeneDx) G6PD Full Gene Sequencing and Deletion/Duplication (Invitae)	81247, 81248, 81249, 81479	D55.0
von Willebrand Disease			
VWF Variant Analysis	Von Willebrand Disease Gene Sequencing (Quest)	81408, 81479	D68.0
Other Covered Hematologic Conditions (non-cancerous)			
Other Covered Hematologic (non-cancerous) Disorders	See list below	81400, 81401, 81402, 81403, 81404, 81405, 81406, 81407, 81408	

Coverage

Inherited Thrombophilia

Hemoglobinopathies

HBA1/_HBA2_ and/or _HBB_ Variant Analysis

1. _HBA1_/_HBA2_ variant analysis, and/or _HBB_ variant analysis to confirm or establish a diagnosis of a hemoglobinopathy (e.g., alpha-thalassemia, beta-thalassemia, or sickle cell disease) is considered **medically necessary** when:
   - A. The member's hematologic screening results (examples: MCV, MCH, CBC, hemoglobin electrophoresis, or dichlorophenol indophenol (DCIP)) are positive for a hemoglobinopathy, **or**
   - B. The member's hematologic screening results (examples: MCV, MCH, CBC, hemoglobin electrophoresis, or dichlorophenol indophenol (DCIP)) do not conclusively diagnose or rule out a hemoglobinopathy.
2. _HBA1_/_HBA2_ variant analysis, and/or _HBB_ variant analysis to confirm or establish a diagnosis of a hemoglobinopathy (e.g., alpha-thalassemia, beta-thalassemia, or sickle cell disease) is considered **investigational** for all other indications.

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Hemophilia

Factor VIII (F8) and Factor IX (F9) Variant Analysis for Hemophilia A and B

1. _F8_ variant analysis and/or _F9_ variant analysis to confirm or establish a diagnosis of hemophilia A or B is considered **medically necessary** when:
   - A. The member has any of the following clinical features of hemophilia:
     - i. Hemarthrosis (especially with mild or no antecedent trauma)
     - ii. Deep-muscle hematomas
     - iii. Intracranial bleeding in the absence of major trauma
     - iv. Neonatal cephalohematoma or intracranial bleeding
     - v. Prolonged oozing or renewed bleeding after initial bleeding stops following tooth extractions, mouth injury, or circumcision
     - vi. Prolonged, delayed bleeding or poor wound healing following surgery or trauma
     - vii. Unexplained GI bleeding or hematuria
     - viii. Heavy or prolonged menstrual bleeding (especially with onset at menarche)
     - ix. Prolonged nosebleeds, especially recurrent and bilateral

x. Excessive bruising (especially with firm, subcutaneous hematomas), **or**

B. The member has the following laboratory features:

i. Normal platelet count, **and**

ii. Prolonged activated partial thromboplastin time (aPTT), **and**

iii. Normal prothrombin time (PT)

2. *F8* variant analysis and/or *F9* variant analysis to confirm or establish a diagnosis of hemophilia A or B is considered **investigational** for all other indications.

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Glucose-6-Phosphate Dehydrogenase (G6PD)

G6PD Variant Analysis

1. *G6PD* variant analysis to confirm or establish a diagnosis of glucose-6-phosphate dehydrogenase deficiency is considered **investigational**.

* Diagnosis of G6PD can be achieved by quantitative spectrophotometric analysis or, more commonly, by a rapid fluorescent spot test detecting the generation of NADPH from NADP.

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von-Willebrand Disease

VWF Variant Analysis

1. VWF variant analysis to confirm or establish a diagnosis* of von-Willebrand disease is considered **investigational**.

* Diagnosis of von-Willebrand disease can be achieved by standard laboratory and biochemical testing.

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Other Covered Hematologic Conditions (Non-Cancerous)

1. Genetic testing to establish or confirm one of the following non-cancerous hematologic disorders to guide management is considered **medically necessary** when the member demonstrates clinical features* consistent with the disorder:

A. Atypical Hemolytic Uremic Syndrome

B. Complete Plasminogen Activator Inhibitor 1 Deficiency (PAI-1)

C. Diamond-Blackfan Anemia (DBA)

D. Hereditary Spherocytosis

E. Factor VII Deficiency

F. Factor X Deficiency

G. Factor XI Deficiency (Hemophilia C)

H. Factor XII Deficiency

I. Factor XIII Deficiency

2. Genetic testing to establish or confirm the diagnosis of all other non-cancerous hematologic conditions not specifically discussed within this or another medical policy will be evaluated by the criteria outlined in **General approach to genetic and molecular testing** (see policy for coverage criteria).

*Clinical features for a specific non-cancerous hematologic disorder may be outlined in resources such as GeneReviews, OMIM, National Library of Medicine, Genetics Home Reference, or other scholarly source.

Definitions

1. Close relatives include first, second, and third degree **blood** relatives on the same side of the family:

A. **First-degree relatives** are parents, siblings, and children

B. **Second-degree relatives** are grandparents, aunts, uncles, nieces, nephews, grandchildren, and half siblings

C. **Third-degree relatives** are great grandparents, great aunts, great uncles, great grandchildren, and first cousins

2. **Nonsurgical transient risk factors** include confinement to bed in the hospital with acute illness for at least 3 days, or a combination of minor transient risk factors such as admission of less than 3 days with acute illness or confinement to bed outside of hospital for at least 3 days, or leg injury associated with decreased mobility for at least 3 days.

Products

This information is for most, but not all, HealthPartners plans. Please read your plan documents to see if your plan has limits or will not cover some items. If there is a difference between this general information and your plan documents, your plan documents will be used to determine your coverage. These coverage criteria do not apply to Medicare Products. For more information regarding Medicare coverage criteria or for a copy of a Medicare coverage policy, contact Member Services at 952-883-7272 or 1-877-778-8384.

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