

Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)

- Also known as**
1. AG® CYP kits
 2. AmpliChip® CYP450 Test
 3. GeneSight Psychotropic
 4. INFINITI CYP2C19 Assay
 5. Mental Health DNA Insight
 6. PersonaGene™ Genetic Panel
 7. STA2R SureGene Test
 8. Verigene CYP2C19 Nucleic Acid Test
 9. YouScript Panel
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Description

Cytochrome P450 (CYP450) variant genotyping is a genetic test intended primarily to predict an individual's response to a drug. CYP450 is a family of over 60 enzymes, which are responsible for the metabolism of a significant proportion of currently administered drugs. The activity of CYP450 enzymes varies among individuals and can be influenced by a number of factors, including inherited variations in the CYP450 genes, diet, concurrent medications, ethnicity, gender, overall health, age, and other environmental factors. Based on the results of CYP450 genotyping for drug metabolism, individuals are categorized as ultra-rapid, intermediate or poor metabolizers. In theory, this should lead to early selection and optimal dosing of the most effective drugs, while minimizing treatment failures, serious adverse drug reactions, and medical costs.

See also

Similar, related, or easily confused documents.

- [Genetic and Pharmacogenetic Testing](#) - Provides information about a person's genes and chromosomes.
 - [Genetic Counseling](#) - Helping people understand and adapt to the implications of genetic contributions to disease.
 - [Pharmacogenetic Testing of the VKORC1 Gene for Warfarin Response](#) - A DNA test on a patient's blood or saliva to predict their response to warfarin (Coumadin), an orally administered anticoagulant drug, or commonly referred to as a blood thinner.
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Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4), Continued

Commercial

A Coverage Policy, *Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)*, is on [medica.com](https://www.medicare.com).

- Considered investigative, not covered.

Government Programs

Refer to the table below.

Plan	Coverage
AccessAbility (SNBC), Minnesota Senior Care Plus (MSC+)	<p>Medicaid only groups:</p> <ul style="list-style-type: none"> • Refer to Medicaid below. <p>Medicare eligible groups:</p> <ul style="list-style-type: none"> • Considered investigative, not covered. • Follows Medicare guidelines. • If no Medicare eligibility, Medicaid applies. Refer to Medicaid below.
AccessAbility Enhanced (SNBC SNP), DUAL (MSHO)	<ul style="list-style-type: none"> • A Coverage Policy, <i>Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)</i>, is on medica.com. • Considered investigative, not covered.
Advantage	<ul style="list-style-type: none"> • A Coverage Policy, <i>Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)</i>, is on medica.com. • Considered investigative, not covered.
Advantage PartnerCare (I-SNP)	<ul style="list-style-type: none"> • A Coverage Policy, <i>Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)</i>, is on medica.com. • Considered investigative, not covered.

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Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4), Continued

Government Programs, continued

Plan	Coverage
Medicaid (SPP)	<ul style="list-style-type: none"> • A Coverage Policy, <i>Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)</i>, is on medica.com. • Considered investigative, not covered.
Prime	<ul style="list-style-type: none"> • Medicare does not have a policy. Medica's Coverage Policy, <i>Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)</i>, on medica.com applies. • Considered investigative, not covered • Follows Medicare guidelines.
Select, Signature	<ul style="list-style-type: none"> • Considered investigative, not covered. • Follows Medicare guidelines.

Individual and Family Business (IFB)

A Coverage Policy, *Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)*, is on [medica.com](https://www.medicare.com).

- Considered investigative, not covered.

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Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4), Continued

Medica Health Plan Solutions (MHPS)

Coverage depends on the employer AND servicing provider.

Employer	Provider	Coverage
Mayo Medical Plan	Mayo provider	<ul style="list-style-type: none">• Covered based on place of service. Quote office visit or outpatient hospital benefits.
Mayo Medical Plan	Non-Mayo provider	<ul style="list-style-type: none">• A Coverage Policy, <i>Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)</i>, is on medica.com.• Considered investigative, not covered.
All others	All providers	<ul style="list-style-type: none">• A Coverage Policy, <i>Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4)</i>, is on medica.com.• Considered investigative, not covered.

National Account Member Services (NAMS)

A Medical Policy, *Genetic Testing*, is on [UHC Provider.com](https://uhcprovider.com).

- May be listed separately, if so, quote from iBAAG.
- If not listed separately, considered investigative, not covered.

Document history

The document history for the past 12 months is outlined below.

Note: See the KN for complete document history. Email questions to CSKNupdate@medica.com.

Date	Description
6.26.20	Re-review due to age.
6.5.20	Updated to new template.
6.5.20	Updated <i>MMP</i> for CP to indicate depends on provider.
10.19.19	Updated to new template.

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Cytochrome P450 (CYP450) Variant Genotyping (CYP2D6, CYP2C9, CYP2C19, CYP1A2, CYP3A4), Continued

Applicability

Business Segments		
<input checked="" type="checkbox"/> All <input type="checkbox"/> Assoc. <input type="checkbox"/> Comm. <input type="checkbox"/> IFB <input type="checkbox"/> Medicare <input type="checkbox"/> Medicaid <input type="checkbox"/> MHPS <input type="checkbox"/> My Plan <input type="checkbox"/> PSC		
Specific Clients/Products		
<input checked="" type="checkbox"/> All <input type="checkbox"/> Other:		
System		
<input type="checkbox"/> HealthRules Payor <input type="checkbox"/> ISET (Choose an item.) <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Other:		
Departments		
<input type="checkbox"/> All <input type="checkbox"/> Billing <input checked="" type="checkbox"/> Call Center <input type="checkbox"/> Claims <input type="checkbox"/> Enrollment <input type="checkbox"/> Payment Integrity <input type="checkbox"/> Other:		
Approved By	Document Owner	Date
A-Z Review Team	KNTWs	6.26.20
