SelfDecode™

DNAmind PGx

Report

Sample Client

Report date: 18 August 2025

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Personal information

NAME

Sample Client

SEX AT BIRTH

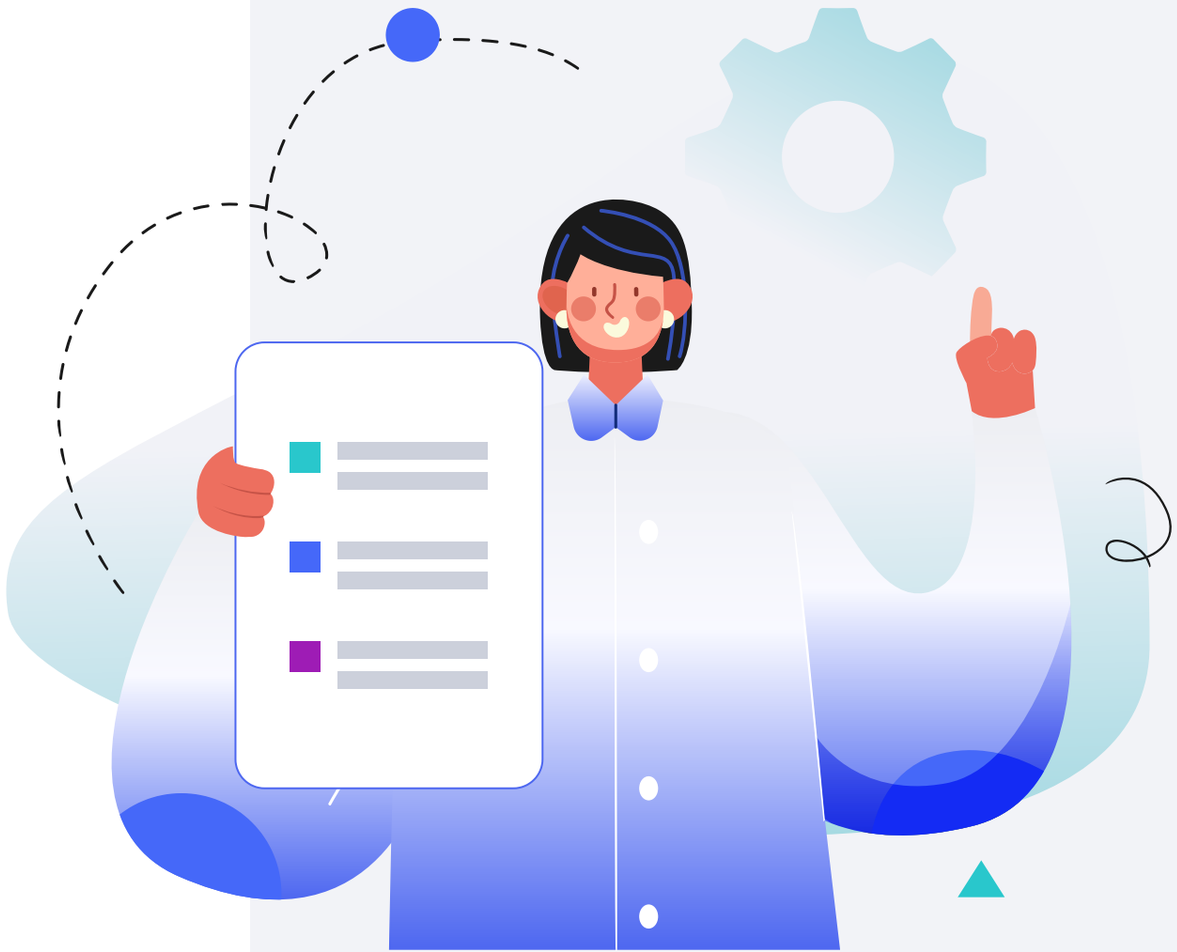
Male

HEIGHT

5ft 9" 175.0cm

WEIGHT

165lb 75.0kg



How this works

What is a DNAmind PGx report

The **DNAmind PGx Report** is inspired by a popular report, **Genomind PGx**. It provides information about how your genetic makeup affects your body's response to medication and supplements.

PLEASE NOTE: This report has not been verified by our science team and may contain incomplete or inaccurate information. For a clinical-grade PGx report created and validated by our science team, click here.

Genetic variants can speed or slow down the processing of certain drugs in the body, making them more or less effective. They can also make you more or less prone to side effects associated with the use of certain drugs.

This report provides information about 100+ drugs. For some of them, the information is based on the guidelines developed by specialized organizations such as the Clinical Pharmacogenetics Implementation Consortium (CPIC), US Food and Drug Administration (FDA), Pharmacogenomics Knowledge Base (PharmGKB), and the Dutch Pharmacogenetics Working Group (DPWG).

However, a significant portion of the information contained in this report is not verified by health authorities. It may be extrapolated from verified information, or it may be just a hypothesis based on the metabolic pathways of certain drugs or supplements.

The information in this report is provided for:
- **a specific variant** you carry
- **your metabolizer type**, which is based on a set of multiple variants that are found in a certain gene. You carry a combination of two alleles, denoted by a star (e.g. *1*2) which are mapped to a specific metabolizer type as defined by CPIC and PharmGKB

Evidence levels

Information provided in this report carries the following evidence levels:

No stars: This is a variant-drug/supplement combination with uncertain, contradictory, or negligible evidence. This association may be based on a hypothesis and may stem from unverified sources. **No clinical recommendations should ever be made based on this interaction.**

⭐⭐⭐ This is a variant-drug combination that is listed in a current clinical guideline or FDA-approved drug label annotation with at least one additional independent publication. Alternatively, there is a high level of evidence supporting this association with at least two independent publications.

⭐⭐ This is a variant-drug combination with a moderate level of evidence and at least two independent publications. For example, this association may be found in multiple studies, but a minority of the studies don't support the major conclusion.

⭐ This is a variant-drug combination with a low level of evidence. This association may be based on a single study or there may be several studies that didn't replicate the association. Or it may be based on preliminary evidence (e.g., a case report, non-significant study, or in vitro, molecular, or functional assay evidence). Alternatively, this is an association involving a rare combination of alleles that is difficult to study, that has been extrapolated based on information available for more common and well studied allele combinations.

Prescribing guidance

Based on the available information and recommendations, drugs are classified into two categories:

Standard precautions: You may respond well to this drug, with a low risk of side effects. The standard recommended dosage is advised for this drug.

Use with caution: You may be at an increased risk of adverse events and may need monitoring for efficacy or side effects. Standard dosage may not be adequate for certain drugs, and, in some cases, an alternative drug may be recommended.

Where applicable, recommendations are obtained from CPIC, FDA, or DPWG guidelines. These are **highlighted and colored blue**. In all other cases, there's not enough evidence to make a clinical recommendation based on the given interaction.

Warnings and limitations

Both genetics and non-genetic factors affect drug metabolism. Other factors that influence your response to drugs include:
- age
- body weight
- existing medical conditions (e.g. liver or kidney disease)
- other drugs or supplements you may be taking
- other genetic variants we are not able to account for in this report

Do not use this report to start, stop, or change any medical treatment!

Medications should always be taken as directed by your healthcare provider. Making changes of your own accord can harm your body and/or interfere with the benefits of the medication.

This report intends to provide information you can use to discuss how your genetics impact your response to medication with your doctor. If you have any concerns, discuss them with your healthcare provider. While unlikely, this report may provide false positive or false negative results. **Confirm any results with an independent specialized genetic test prescribed by a healthcare professional before making any medical decisions.**

Pharmacogenetic tests from other companies may include different genetic variants and may therefore provide slightly different results.

Disclaimer

This PGx report does not provide medical advice and does not replace discussions with your doctor about your treatment and your medications. This report does not account for lifestyle or other health factors that may affect how your body processes medications, and does not look at all possible genetic variants that may affect the metabolism of a certain drug. This report does not diagnose any health condition or disease and does not inform about your risk of developing any health conditions or diseases.

Pharmacogenomic guidance overview

Category	Drug Class	Standard Precautions	Use With Caution
Pain	Non-opioid analgesics	Acetaminophen (Tylenol®) Celecoxib (Celebrex®) Diclofenac (Voltaren®, Cataflam®) Flurbiprofen (Ansaid®) Ibuprofen (Advil®, Motrin®) Meloxicam (Mobic®) Naproxen (Aleve®, Naprosyn®) Piroxicam (Feldene®)	
	Opioids	Codeine Morphine (MS Contin®, Kadian®)	Alfentanil (Alfenta®) Fentanyl (Duragesic®) Hydrocodone (Vicodin®, Norco®, Lorcet®) Meperidine (Demerol®) Methadone (Dolophine®, Methadose®) Opioids (Other) Oxycodone (OxyContin®) Tramadol (Ultram®)
	Skeletal Muscle Relaxant	Carisoprodol (Soma®)	

Category	Drug Class	Standard Precautions	Use With Caution
Psychotropic	**ADHD Medications**	Dextroamphetamine (Dexedrine®, Procentra®, Zenzedi®) Methylphenidate (Ritalin®, Concerta®, Daytrana®, Metadate®)	Guanfacine (Intuniv®)
	Antidepressants (MAOIs)		Selegiline (Eldepryl®, Emsam®)
	Antidepressants (Other)	Bupropion (Wellbutrin®)	Esketamine (Spravato®) Mirtazapine (Remeron®) Nefazodone Trazodone (Desyrel®, Oleptro®) Vilazodone (Viibryd®) Vortioxetine (Trintellix®)
	Antidepressants (SNRIs)		Levomilnacipran (Fetzima®) Venlafaxine (Effexor®)
	Antidepressants (SSRIs)	Citalopram (Celexa®) Escitalopram (Lexapro®) Fluoxetine (Prozac®) Fluvoxamine (Luvox®) Paroxetine (Paxil®) SSRIs (Other)	Sertraline (Zoloft®)
	Antidepressants (TCAs)	Amitriptyline (Elavil®) Clomipramine (Anafranil®) Doxepin (Sinequan®) Imipramine (Tofranil®) Nortriptyline (Pamelor®) Trimipramine (Surmontil®)	
	Antipsychotics (1st generation)	Trifluoperazine (Stelazine®)	Haloperidol (Haldol®) Pimozide (Orap®)
	Antipsychotics (2nd generation)	Asenapine (Saphris®)	Aripiprazole (Abilify®) Brexpiprazole (Rexulti®) Cariprazine (Vraylar®) Clozapine (Clozaril®) Iloperidone (Fanapt®) Lurasidone (Latuda®) Olanzapine (Zyprexa®) Paliperidone (Invega®) Pimavanserin (Nuplazid®) Quetiapine (Seroquel®) Risperidone (Risperdal®) Ziprasidone (Geodon®)
	Anxiolytics	Clorazepate (Tranxene®) Lorazepam (Ativan®) Oxazepam (Serax®) Temazepam (Restoril®)	Alprazolam (Xanax®) Buspirone (Buspar®) Chlordiazepoxide (Librium®) Clonazepam (Klonopin®) Diazepam (Valium®)
	Miscellaneous	Miscellaneous	Buprenorphine (Butrans®) Buprenorphine/Naloxone

Category	Drug Class	Standard Precautions	Use With Caution
			(Suboxone®) Cannabidiol (CBD) (Epidiolex®) Dextromethorphan/Quinidine (Nuedexta®) Valbenazine (Ingrezza®)
	Mood stabilizers/Anticonvulsants	Lamotrigine (Lamictal®) Mood stabilizers (Other) Oxcarbazepine (Trileptal®, Oxtellar®) Phenytoin/Fosphenytoin (Dilantin®, Cerebyx®) Topiramate (Topamax®) Valproate (Depakote®, Depakene®)	Carbamazepine (Equetro®, Tegretol®)
	Sleep Modulators		Armodafinil (Nuvigil®) Eszopiclone (Lunesta®) Modafinil (Provigil®) Ramelteon (Rozerem®) Suvorexant (Belsomra®) Zaleplon (Sonata®) Zolpidem (Ambien®)
	Supplements	5-HTP L-Methylfolate L-Tryptophan St. John's Wort	Caffeine Melatonin

Detailed prescribing guidance

Alfentanil (Alfenta®)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like alfentanil. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence alfentanil metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like alfentanil. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence alfentanil metabolism.

Alprazolam (Xanax®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like alprazolam. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence alprazolam metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like alprazolam. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence alprazolam metabolism.

Aripiprazole (Abilify®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like aripiprazole. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence aripiprazole metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like aripiprazole. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence aripiprazole metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of aripiprazole.

GENE	GENOTYPE	PHENOTYPE
HTR2C	rs3813929 **C**	

Serotonin receptor 2C (HTR2C) is a G-protein coupled receptor that mediates serotonin signaling and affects mood, appetite, and sleep regulation. You have a genetic variant associated with impaired satiety signaling and a higher risk of weight gain when taking atypical antipsychotic medications. Your doctor may closely monitor your weight gain and implement proactive weight management strategies.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of aripiprazole.

GENE	GENOTYPE	PHENOTYPE
MC4R	rs489693 **CC**	

Melanocortin 4 receptor regulates energy homeostasis, appetite, and body weight through hypothalamic signaling pathways. You have a typical genetic risk profile for weight gain with second-generation antipsychotic medications. Standard weight monitoring protocols and treatment guidelines apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to aripiprazole.

Armodafinil (Nuvigil®)

Psychotropic / Sleep Modulators

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like armodafinil. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence armodafinil metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like armodafinil. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence armodafinil metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of armodafinil.

Brexpiprazole (Rexulti®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like brexpiprazole. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence brexpiprazole metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like brexpiprazole. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence brexpiprazole metabolism.

GENE	GENOTYPE	PHENOTYPE
HTR2C	rs3813929 **C**	

Serotonin receptor 2C (HTR2C) is a G-protein coupled receptor that mediates serotonin signaling and affects mood, appetite, and sleep regulation. You have a genetic variant associated with impaired satiety signaling and a higher risk of weight gain when taking atypical antipsychotic medications. Your doctor may closely monitor your weight gain and implement proactive weight management strategies.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of brexpiprazole.

GENE	GENOTYPE	PHENOTYPE
MC4R	rs489693 **CC**	

Melanocortin 4 receptor regulates energy homeostasis, appetite, and body weight through hypothalamic signaling pathways. You have a typical genetic risk profile for weight gain with second-generation antipsychotic medications. Standard weight monitoring protocols and treatment guidelines apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of brexpiprazole.

Buprenorphine (Butrans®)

Psychotropic / Miscellaneous

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like buprenorphine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence buprenorphine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like buprenorphine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence buprenorphine metabolism.

Buprenorphine/Naloxone (Suboxone®)

Psychotropic / Miscellaneous

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like buprenorphine/naloxone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence buprenorphine/naloxone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like buprenorphine/naloxone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence buprenorphine/naloxone metabolism.

Buspirone (Buspar®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like buspirone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence buspirone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like buspirone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence buspirone metabolism.

Caffeine

Psychotropic / Supplements

GENE	GENOTYPE	PHENOTYPE
CYP1A2	rs2069514 **GG** rs2470890 **TC** rs762551 **AA**	

Cytochrome P450 1A2 is a phase I metabolic enzyme primarily expressed in the liver that metabolizes some medications and supplements like caffeine. You have normal CYP1A2 liver enzyme activity, based on the **rs2069514** variant, which means your body may process caffeine and other CYP1A2 substrates at typical rates. Standard precautions apply. This variant can not determine your exact CYP1A2 metabolizer type on its own.

You may have reduced CYP1A2 liver enzyme activity, based on the **rs2470890** variant, which means your body breaks down caffeine and other CYP1A2 substrates more slowly than average. This might lead to drug accumulation and an increased risk of side effects. Your doctor may consider closely monitoring your response. This variant can not determine your exact CYP1A2 metabolizer type on its own.

You have normal CYP1A2 liver enzyme activity, based on the **rs762551** variant, which means your body may process caffeine and other CYP1A2 substrates at typical rates. Standard precautions apply. This variant can not determine your exact CYP1A2 metabolizer type on its own.

Other genetic and clinical factors may also influence the metabolism of caffeine.

Cannabidiol (CBD) (Epidiolex®)

Psychotropic / Miscellaneous

GENE	GENOTYPE	PHENOTYPE
CYP2C19	*1*1	Normal Metabolizer

Cytochrome P450 2C19 is a phase I metabolic enzyme primarily expressed in the liver that exhibits significant genetic polymorphism affecting drug metabolism. Patients with this CYP2C19 genotype (normal metabolizers) may have typical metabolism of substances like CBD. Standard precautions apply.

Other genetic and clinical factors may also influence CBD metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like CBD. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence CBD metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like CBD. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence CBD metabolism.

Carbamazepine (Equetro®, Tegretol®)

Psychotropic / Mood stabilizers/Anticonvulsants

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like carbamazepine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence carbamazepine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like carbamazepine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence carbamazepine metabolism.

GENE	GENOTYPE	PHENOTYPE
HLA-A	rs1061235 **AA**	

Human leukocyte antigen A is an immune system gene that presents peptides to T-cells and can influence drug hypersensitivity reactions. You may not carry the high-risk genetic variant for carbamazepine-induced severe skin reactions. If indicated, your doctor may recommend taking carbamazepine with standard monitoring and precautions. However, keep in mind this variant is just a proxy for the HLA-A*31:01 risk allele. Make sure to verify your actual HLA-A allele at a certified clinical lab before taking any action.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to carbamazepine.

GENE	GENOTYPE	PHENOTYPE
HLA-B	rs10484555 **TT**	

Human leukocyte antigen B is an immune system gene that presents peptides to T-cells and is associated with severe drug hypersensitivity reactions. You may not carry the high-risk genetic variant for severe skin reactions with seizure medications like carbamazepine and oxcarbazepine. Your doctor may prescribe these medications safely with standard monitoring. However, keep in mind this variant is just a proxy for the HLA-B*15:02 risk allele. Make sure to verify your actual HLA-B allele at a certified clinical lab before taking any action.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to carbamazepine.

Cariprazine (Vraylar®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like cariprazine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence cariprazine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like cariprazine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence cariprazine metabolism.

Chlordiazepoxide (Librium®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like chlordiazepoxide. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence chlordiazepoxide metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like chlordiazepoxide. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence chlordiazepoxide metabolism.

GENE	GENOTYPE	PHENOTYPE
UGT2B15	rs1902023 **AC**	

UDP glucuronosyltransferase 2B15 is a conjugation enzyme that metabolizes steroid hormones and various medications. You have moderately reduced UGT2B15 liver enzyme activity, which may lead to slower metabolism of certain medications that are processed by this enzyme. Your doctor may consider monitoring your response more closely.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence chlordiazepoxide metabolism

Clonazepam (Klonopin®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like clonazepam. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence clonazepam metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like clonazepam. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence clonazepam metabolism.

Clozapine (Clozaril®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of clozapine.

GENE	GENOTYPE	PHENOTYPE
HTR2C	rs3813929 **C**	

Serotonin receptor 2C (HTR2C) is a G-protein coupled receptor that mediates serotonin signaling and affects mood, appetite, and sleep regulation. You have a genetic variant associated with impaired satiety signaling and a higher risk of weight gain when taking atypical antipsychotic medications. Your doctor may closely monitor your weight gain and implement proactive weight management strategies.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of clozapine.

GENE	GENOTYPE	PHENOTYPE
MC4R	rs489693 **CC**	

Melanocortin 4 receptor regulates energy homeostasis, appetite, and body weight through hypothalamic signaling pathways. You have a typical genetic risk profile for weight gain with second-generation antipsychotic medications. Standard weight monitoring protocols and treatment guidelines apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of clozapine.

Dextromethorphan/Quinidine (Nuedexta®)

Psychotropic / Miscellaneous

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like dextromethorphan/quinidine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence dextromethorphan/quinidine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like dextromethorphan/quinidine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence dextromethorphan/quinidine metabolism.

Diazepam (Valium®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

Cytochrome P450 2C19 is a phase I metabolic enzyme primarily expressed in the liver that exhibits significant genetic polymorphism affecting drug metabolism. Patients with this CYP2C19 genotype (normal metabolizers) may have typical metabolism of anxiolytics like diazepam. Standard precautions apply.

Other genetic and clinical factors may also influence diazepam metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like diazepam. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence diazepam metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like diazepam. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence diazepam metabolism.

GENE	GENOTYPE	PHENOTYPE
UGT2B15	rs1902023 **AC**	

UDP glucuronosyltransferase 2B15 is a conjugation enzyme that metabolizes steroid hormones and various medications. You have moderately reduced UGT2B15 liver enzyme activity, which may lead to slower metabolism of certain medications that are processed by this enzyme. Your doctor may consider monitoring your response more closely.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of diazepam.

Esketamine (Spravato®)

Psychotropic / Antidepressants (Other)

GENE	GENOTYPE	PHENOTYPE
CYP2B6	*1*6	Likely Intermediate Metabolizer

Cytochrome P450 2B6 is a phase I metabolic enzyme primarily expressed in the liver that contributes to drug metabolism and clearance. People with this CYP2B6 genotype (intermediate metabolizers) may have slightly decreased metabolism and increased exposure to some antidepressants like esketamine, compared to normal metabolizers. However, the evidence for this interaction is not strong enough to make a clinical recommendation.

Other genetic and clinical factors may also influence esketamine metabolism.

Eszopiclone (Lunesta®)

Psychotropic / Sleep Modulators

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like eszopiclone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence eszopiclone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like eszopiclone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence eszopiclone metabolism.

Fentanyl (Duragesic®)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like fentanyl. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence fentanyl metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like fentanyl. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence fentanyl metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of fentanyl.

Guanfacine (Intuniv®)

Psychotropic / ADHD Medications

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like guanfacine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence guanfacine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like guanfacine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence guanfacine metabolism.

Haloperidol (Haldol®)

Psychotropic / Antipsychotics (1st generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like haloperidol. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence haloperidol metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like haloperidol. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence haloperidol metabolism.

Hydrocodone (Vicodin®, Norco®, Lorcet®)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like hydrocodone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence hydrocodone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like hydrocodone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence hydrocodone metabolism.

Iloperidone (Fanapt®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like iloperidone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence iloperidone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like iloperidone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence iloperidone metabolism.

GENE	GENOTYPE	PHENOTYPE
HTR2C	rs3813929 **C**	

Serotonin receptor 2C (HTR2C) is a G-protein coupled receptor that mediates serotonin signaling and affects mood, appetite, and sleep regulation. You have a genetic variant associated with impaired satiety signaling and a higher risk of weight gain when taking atypical antipsychotic medications. Your doctor may closely monitor your weight gain and implement proactive weight management strategies.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of iloperidone.

GENE	GENOTYPE	PHENOTYPE
MC4R	rs489693 **CC**	

Melanocortin 4 receptor regulates energy homeostasis, appetite, and body weight through hypothalamic signaling pathways. You have a typical genetic risk profile for weight gain with second-generation antipsychotic medications. Standard weight monitoring protocols and treatment guidelines apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of iloperidone.

Levomilnacipran (Fetzima®)

Psychotropic / Antidepressants (SNRIs)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like levomilnacipran. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence levomilnacipran metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like levomilnacipran. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence levomilnacipran metabolism.

Lurasidone (Latuda®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like lurasidone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence lurasidone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like lurasidone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence lurasidone metabolism.

Melatonin

Psychotropic / Supplements

GENE	GENOTYPE	PHENOTYPE
CYP1A2	rs2069514 **GG** rs2470890 **TC** rs762551 **AA**	

Cytochrome P450 1A2 is a phase I metabolic enzyme primarily expressed in the liver that metabolizes some medications and supplements like caffeine. You have normal CYP1A2 liver enzyme activity, which means your body may process melatonin and other CYP1A2 substrates at typical rates. Standard precautions apply. This variant can not determine your exact CYP1A2 metabolizer type on its own.

Cytochrome P450 1A2 is a phase I metabolic enzyme primarily expressed in the liver that metabolizes some medications and supplements like caffeine. You may have reduced CYP1A2 liver enzyme activity, which means your body breaks down melatonin and other CYP1A2 substrates more slowly than average. This might lead to drug accumulation and an increased risk of side effects. Your doctor may consider closely monitoring your response. This variant can not determine your exact CYP1A2 metabolizer type on its own.

Cytochrome P450 1A2 is a phase I metabolic enzyme primarily expressed in the liver that metabolizes some medications and supplements like caffeine. You have normal CYP1A2 liver enzyme activity, which means your body may process melatonin and other CYP1A2 substrates at typical rates. Standard precautions apply. This variant can not determine your exact CYP1A2 metabolizer type on its own.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of duloxetine.

Meperidine (Demerol®)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
CYP2B6	***1*6**	Likely Intermediate Metabolizer

Cytochrome P450 2B6 is a phase I metabolic enzyme primarily expressed in the liver that contributes to drug metabolism and clearance. People with this CYP2B6 genotype (intermediate metabolizers) may have slightly decreased metabolism and increased exposure to some opioid analgesics like meperidine, compared to normal metabolizers. However, the evidence for this interaction is not strong enough to make a clinical recommendation.

Other genetic and clinical factors may also influence meperidine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like meperidine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence meperidine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like meperidine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence meperidine metabolism.

Methadone (Dolophine®, Methadose®)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
CYP2B6	***1*6**	Likely Intermediate Metabolizer

The CYP2B6*1 allele is assigned as a normal function allele by CPIC. The CYP2B6*6 allele is assigned as a decreased function allele by CPIC. Patients with the *1*6 genotype (likely intermediate metabolizers) **may have decreased clearance of methadone** as compared to patients with two normal function alleles. However, conflicting evidence has been reported. ⭐⭐

Other genetic and clinical factors may also affect methadone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like methadone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence methadone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like methadone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence methadone metabolism.

Mirtazapine (Remeron®)

Psychotropic / Antidepressants (Other)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like Mirtazapine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence Mirtazapine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like Mirtazapine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence Mirtazapine metabolism.

Modafinil (Provigil®)

Psychotropic / Sleep Modulators

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like Modafinil. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence Modafinil metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like Modafinil. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence Modafinil metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of modafinil.

Nefazodone

Psychotropic / Antidepressants (Other)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like nefazodone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence nefazodone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like nefazodone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence nefazodone metabolism.

Olanzapine (Zyprexa®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of olanzapine.

GENE	GENOTYPE	PHENOTYPE
HTR2C	rs3813929 **C**	

Serotonin receptor 2C (HTR2C) is a G-protein coupled receptor that mediates serotonin signaling and affects mood, appetite, and sleep regulation. You have a genetic variant associated with impaired satiety signaling and a higher risk of weight gain when taking atypical antipsychotic medications. Your doctor may closely monitor your weight gain and implement proactive weight management strategies.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of olanzapine.

GENE	GENOTYPE	PHENOTYPE
MC4R	rs489693 **CC**	

Melanocortin 4 receptor regulates energy homeostasis, appetite, and body weight through hypothalamic signaling pathways. You have a typical genetic risk profile for weight gain with second-generation antipsychotic medications. Standard weight monitoring protocols and treatment guidelines apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of olanzapine.

Opioids (Other)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
OPRM1	rs1799971 **GA**	

μ-Opioid Receptor (OPRM1) is an opioid receptor which is affected by endogenous and exogenous opioids. You have reduced sensitivity to opioid medications due to decreased opioid receptor binding. Your doctor may closely monitor your response and adjust accordingly in case of a suboptimal response.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to opioids.

Oxycodone (OxyContin®)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like oxycodone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence oxycodone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like oxycodone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence oxycodone metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of oxycodone.

Paliperidone (Invega®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
HTR2C	rs3813929 **C**	

Serotonin receptor 2C (HTR2C) is a G-protein coupled receptor that mediates serotonin signaling and affects mood, appetite, and sleep regulation. You have a genetic variant associated with impaired satiety signaling and a higher risk of weight gain when taking atypical antipsychotic medications. Your doctor may closely monitor your weight gain and implement proactive weight management strategies.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of paliperidone.

GENE	GENOTYPE	PHENOTYPE
MC4R	rs489693 **CC**	

Melanocortin 4 receptor regulates energy homeostasis, appetite, and body weight through hypothalamic signaling pathways. You have a typical genetic risk profile for weight gain with second-generation antipsychotic medications. Standard weight monitoring protocols and treatment guidelines apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of paliperidone.

Pimavanserin (Nuplazid®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like Pimavanserin. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence Pimavanserin metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like Pimavanserin. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence Pimavanserin metabolism.

Pimozide (Orap®)

Psychotropic / Antipsychotics (1st generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like pimozide. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence pimozide metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like pimozide. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence pimozide metabolism.

Quetiapine (Seroquel®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

The CYP3A4*1 allele has been assigned as a normal function allele by CPIC. Patients with the *1*1 genotype (normal metabolizers) **may have decreased exposure to quetiapine** as compared to patients who carry a decreased or a no function allele. ⭐⭐⭐

Other genetic and clinical factors may also influence quetiapine dose requirements.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

The CYP3A5*3 allele has been assigned as a decreased function allele by CPIC. Patients with the *3*3 genotype (likely poor metabolizers) **may have increased exposure to quetiapine** compared to people who have two normal function alleles*. ⭐⭐⭐

*The Dutch Pharmacogenetics Working Group (DPWG) guideline recommends choosing an alternative for depression. Aripiprazole metabolism appears to be less dependent on CYP3A5 while olanzapine is not metabolized by CYP3A5. For indications other than depression, DPWG recommends using 30% of the normal dose.**

**Extrapolated based on evidence for other CYP3A5 decreased function variants.*

Other genetic and clinical factors may also influence quetiapine dose requirements.

GENE	GENOTYPE	PHENOTYPE
HTR2C	rs3813929 **C**	

Serotonin receptor 2C (HTR2C) is a G-protein coupled receptor that mediates serotonin signaling and affects mood, appetite, and sleep regulation. You have a genetic variant associated with impaired satiety signaling and a higher risk of weight gain when taking atypical antipsychotic medications. Your doctor may closely monitor your weight gain and implement proactive weight management strategies.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of quetiapine.

GENE	GENOTYPE	PHENOTYPE
MC4R	rs489693 **CC**	

Melanocortin 4 receptor regulates energy homeostasis, appetite, and body weight through hypothalamic signaling pathways. You have a typical genetic risk profile for weight gain with second-generation antipsychotic medications. Standard weight monitoring protocols and treatment guidelines apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of quetiapine.

Ramelteon (Rozerem®)

Psychotropic / Sleep Modulators

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

Cytochrome P450 2C19 is a phase I metabolic enzyme primarily expressed in the liver that exhibits significant genetic polymorphism affecting drug metabolism. Patients with this CYP2C19 genotype (normal metabolizers) may have typical metabolism of sleep modulators like ramelteon. Standard precautions apply.

Other genetic and clinical factors may also influence ramelteon metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like ramelteon. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence ramelteon metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like ramelteon. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence ramelteon metabolism.

Risperidone (Risperdal®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like risperidone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence risperidone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like risperidone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence risperidone metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of risperidone.

GENE	GENOTYPE	PHENOTYPE
HTR2C	rs3813929 **C**	

Serotonin receptor 2C (HTR2C) is a G-protein coupled receptor that mediates serotonin signaling and affects mood, appetite, and sleep regulation. You have a genetic variant associated with impaired satiety signaling and a higher risk of weight gain when taking atypical antipsychotic medications. Your doctor may closely monitor your weight gain and implement proactive weight management strategies.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of risperidone.

GENE	GENOTYPE	PHENOTYPE
MC4R	rs489693 **CC**	

Melanocortin 4 receptor regulates energy homeostasis, appetite, and body weight through hypothalamic signaling pathways. You have a typical genetic risk profile for weight gain with second-generation antipsychotic medications. Standard weight monitoring protocols and treatment guidelines apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of risperidone.

Selegiline (Eldepryl®, Emsam®)

Psychotropic / Antidepressants (MAOIs)

GENE	GENOTYPE	PHENOTYPE
CYP2B6	***1*6**	Likely Intermediate Metabolizer

Cytochrome P450 2B6 is a phase I metabolic enzyme primarily expressed in the liver that contributes to drug metabolism and clearance. People with this CYP2B6 genotype (intermediate metabolizers) may have slightly decreased metabolism and increased exposure to some antidepressants like selegiline, compared to normal metabolizers. However, the evidence for this interaction is not strong enough to make a clinical recommendation.

Other genetic and clinical factors may also influence selegiline metabolism.

Sertraline (Zoloft®)

Psychotropic / Antidepressants (SSRIs)

GENE	GENOTYPE	PHENOTYPE
CYP2B6	***1*6**	Likely Intermediate Metabolizer

The CYP2B6*1 allele is assigned as a normal function allele by CPIC. The CYP2B6*6 allele is assigned as a decreased function allele by CPIC. Patients with the *1*6 genotype (likely intermediate metabolizers) **may have increased concentrations of sertraline** as compared to patients with two normal function alleles. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose. CPIC also recommends considering a slower titration schedule and lower maintenance dose than CYP2B6 normal metabolizers.

Other genetic and clinical factors may also influence metabolism of sertraline.

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

The CYP2C19*1 allele is assigned as a normal function allele by CPIC. Patients with the *1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to sertraline** compared to patients with at least one decreased or no function allele but **decreased metabolism and increased exposure to sertraline** compared to patients with two increased function alleles or an increased function allele in combination with a normal function allele. However, conflicting evidence has been reported. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose.

Other genetic and clinical factors may also influence sertraline metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of sertraline.

Suvorexant (Belsomra®)

Psychotropic / Sleep Modulators

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like suvorexant. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence suvorexant metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like suvorexant. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence suvorexant metabolism.

Tramadol (Ultram®)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like tramadol. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence tramadol metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like tramadol. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence tramadol metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of tramadol.

Trazodone (Desyrel®, Oleptro®)

Psychotropic / Antidepressants (Other)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like trazodone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence trazodone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like trazodone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence trazodone metabolism.

Valbenazine (Ingrezza®)

Psychotropic / Miscellaneous

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like valbenazine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence valbenazine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like valbenazine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence valbenazine metabolism.

Venlafaxine (Effexor®)

Psychotropic / Antidepressants (SNRIs)

GENE	GENOTYPE	PHENOTYPE
CYP2C19	*1*1	Normal Metabolizer

Cytochrome P450 2C19 is a phase I metabolic enzyme primarily expressed in the liver that exhibits significant genetic polymorphism affecting drug metabolism. Patients with this CYP2C19 genotype (normal metabolizers) may have typical metabolism of antidepressants like venlafaxine. Standard precautions apply.

Other genetic and clinical factors may also influence venlafaxine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like venlafaxine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence venlafaxine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like venlafaxine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence venlafaxine metabolism.

Vilazodone (Viibryd®)

Psychotropic / Antidepressants (Other)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like vilazodone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence vilazodone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like vilazodone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence vilazodone metabolism.

Vortioxetine (Trintellix®)

Psychotropic / Antidepressants (Other)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like vortioxetine. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence vortioxetine metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like vortioxetine. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence vortioxetine metabolism.

Zaleplon (Sonata®)

Psychotropic / Sleep Modulators

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like zaleplon. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence zaleplon metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like zaleplon. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence zaleplon metabolism.

Ziprasidone (Geodon®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
CYP3A4	*1*1	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like ziprasidone. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence ziprasidone metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	*3*3	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like ziprasidone. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence ziprasidone metabolism.

Zolpidem (Ambien®)

Psychotropic / Sleep Modulators

GENE	GENOTYPE	PHENOTYPE
CYP3A4	***1*1**	Normal Metabolizer

Cytochrome P450 3A4 is the most abundant hepatic enzyme responsible for the metabolism of approximately 50% of clinically used medications. Patients with your CYP3A4 genotype (normal metabolizers) may have typical metabolism and exposure to drugs like zolpidem. There's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence zolpidem metabolism.

GENE	GENOTYPE	PHENOTYPE
CYP3A5	***3*3**	Poor Metabolizer

Cytochrome P450 3A5 is a phase I metabolic enzyme expressed in liver and kidney that shows significant genetic polymorphism. Patients with your CYP3A5 genotype (likely poor metabolizers) may have decreased metabolism and increased exposure to drugs like zolpidem. Your doctor may consider closely monitoring treatment response and adjusting accordingly. However, there's not enough evidence to make clinical recommendations based on this interaction.

Other genetic and clinical factors may also influence zolpidem metabolism.

5-HTP

Psychotropic / Supplements

GENE	GENOTYPE	PHENOTYPE
SLC6A4	rs25531 **TT**	

Solute carrier family 6 member 4 encodes the serotonin transporter that removes serotonin from synapses and regulates synaptic serotonin levels. You may have high serotonin transporter activity, meaning your brain efficiently removes serotonin from synapses. This typically leads to better response and fewer side effects with 5-HTP. Standard precautions apply. However, please note this doesn't necessarily mean you carry two high-activity a.k.a. long 5-HTTLPR alleles — other genetic variants can also determine this allele. See this report for more information.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to 5-HTP.

Acetaminophen (Tylenol®)

Pain / Non-opioid analgesics

GENE	GENOTYPE	PHENOTYPE
UGT2B15	rs1902023 **AC**	

UDP glucuronosyltransferase 2B15 is a conjugation enzyme that metabolizes steroid hormones and various medications. You have moderately reduced UGT2B15 liver enzyme activity, which may lead to slower metabolism of certain medications that are processed by this enzyme. Your doctor may consider monitoring your response more closely.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of acetaminophen.

Amitriptyline (Elavil®)

Psychotropic / Antidepressants (TCAs)

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

The CYP2C19*1 allele is assigned as a normal function allele by CPIC. Patients with the *1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to amitriptyline** compared to patients who carry a decreased or no function allele and **decreased metabolism and increased exposure to amitriptyline** compared to patients who carry a normal function allele in combination with an increased function allele or two increased function alleles. However, conflicting evidence has been reported. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose.

Other genetic and clinical factors may also influence amitriptyline metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of amitriptyline.

Asenapine (Saphris®)

Psychotropic / Antipsychotics (2nd generation)

GENE	GENOTYPE	PHENOTYPE
UGT1A4	rs2011425 **TT**	

UDP glucuronosyltransferase 1A4 is a conjugation enzyme involved in phase II drug metabolism through glucuronidation. You have normal UGT1A4 liver enzyme activity, which means your body processes medications metabolized by this enzyme at typical rates. Standard dosing should be effective for drugs that undergo glucuronidation by this enzyme.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of asenapine.

Bupropion (Wellbutrin®)

Psychotropic / Antidepressants (Other)

GENE	GENOTYPE	PHENOTYPE
CYP2B6	***1*6**	Likely Intermediate Metabolizer

The CYP2B6*1 allele is assigned as a normal function allele by CPIC. The CYP2B6*6 allele is assigned as a decreased function allele by CPIC. Patients with the *1*6 genotype (likely intermediate metabolizers) **may have decreased metabolism and increased exposure to bupropion** compared to patients who carry a combination of normal and/or increased function alleles. ⭐⭐

Other genetic and clinical factors may also affect bupropion metabolism.

Carisoprodol (Soma®)

Pain / Skeletal Muscle Relaxant

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

Cytochrome P450 2C19 is a phase I metabolic enzyme primarily expressed in the liver that exhibits significant genetic polymorphism affecting drug metabolism. Patients with this CYP2C19 genotype (normal metabolizers) may have typical metabolism of substances like carisoprodol . Standard precautions apply.

Other genetic and clinical factors may also influence carisoprodol metabolism.

Celecoxib (Celebrex®)

Pain / Non-opioid analgesics

GENE	GENOTYPE	PHENOTYPE
CYP2C9	*1*1	Normal Metabolizer

The CYP2C9*1 allele is assigned as a normal function allele by CPIC. Patients carrying the CYP2C9*1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to celecoxib** as compared to patients carrying at least one copy of a decreased function or no function allele.
⭐⭐⭐

CPIC recommends initiating therapy with a recommended starting dose. In accordance with the prescribing information, use the lowest effective dosage for the shortest duration consistent with individual patient treatment goals.

Other genetic and clinical factors may also influence celecoxib metabolism.

Citalopram (Celexa®)

Psychotropic / Antidepressants (SSRIs)

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

The CYP2C19*1 allele is assigned as a normal function allele by CPIC. Patients with the *1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to citalopram** compared to patients with a no or decreased function allele and **decreased metabolism and increased exposure to citalopram** compared to patients who carry a normal function allele in combination with an increased function allele or two increased function alleles. However, conflicting evidence has been reported. ⭐⭐⭐

Patients with the *1*1 genotype who are treated with citalopram **may have a decreased, but not absent, risk of treatment-related side effects or intolerance** compared with patients with a no or decreased function allele. However, conflicting evidence has been reported. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose.

Other genetic and clinical factors may also influence citalopram metabolism and adverse effects.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence citalopram metabolism

Clomipramine (Anafranil®)

Psychotropic / Antidepressants (TCAs)

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

The CYP2C19*1 allele is assigned as a normal function allele by CPIC. Patients with the *1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to clomipramine** compared to patients with a decreased or no function allele and **decreased metabolism and increased exposure to clomipramine** compared to patients with two increased function alleles or an increased function allele in combination with a normal function allele. However, conflicting evidence has been reported. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose.

Other genetic and clinical factors may also influence clomipramine metabolism.

Clorazepate (Tranxene®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
UGT2B15	rs1902023 **AC**	

UDP glucuronosyltransferase 2B15 is a conjugation enzyme that metabolizes steroid hormones and various medications. You have moderately reduced UGT2B15 liver enzyme activity, which may lead to slower metabolism of certain medications that are processed by this enzyme. Your doctor may consider monitoring your response more closely.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of clorazepate.

Codeine

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of codeine.

Dextroamphetamine (Dexedrine®, Procentra®, Zenzedi®)

Psychotropic / ADHD Medications

GENE	GENOTYPE	PHENOTYPE
ADRA2A	rs1800544 **CC**	

Alpha-2A adrenergic receptor is a G-protein coupled receptor that mediates norepinephrine and epinephrine signaling in the sympathetic nervous system. You have a genetic variant associated with enhanced response to dextroamphetamine for ADHD treatment. You may achieve good symptom control with standard doses of dextroamphetamine-based medications, and may be more likely to benefit from this treatment approach.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence dextroamphetamine metabolism.

Diclofenac (Voltaren®, Cataflam®)

Pain / Non-opioid analgesics

GENE	GENOTYPE	PHENOTYPE
CYP2C9	***1*1**	Normal Metabolizer

Cytochrome P450 2C9 is a phase I metabolic enzyme primarily expressed in the liver that shows genetic variation affecting drug clearance. Patients carrying your CYP2C9 genotype (normal metabolizers) may have a typical metabolism of substances like diclofenac. Standard precautions apply. There's not enough clinical evidence to make a recommendation based on this interaction.

Other genetic and clinical factors may also influence diclofenac metabolism.

Doxepin (Sinequan®)

Psychotropic / Antidepressants (TCAs)

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

The CYP2C19*1 allele is assigned as a normal function allele by CPIC. Patients with the *1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to doxepin** compared to patients with a no or decreased function allele. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose.

Other genetic and clinical factors may also influence doxepin metabolism.

Escitalopram (Lexapro®)

Psychotropic / Antidepressants (SSRIs)

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

The CYP2C19*1 allele is assigned as a normal function allele by CPIC. Patients with the *1*1 genotype **may have increased metabolism and decreased exposure to escitalopram** compared to patients with a decreased or a no function allele but **decreased metabolism and increased exposure to escitalopram** compared to patients with two increased function alleles or an increased function allele in combination with a normal function allele. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose.

Other genetic and clinical factors may also influence escitalopram metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of escitalopram.

Fluoxetine (Prozac®)

Psychotropic / Antidepressants (SSRIs)

GENE	GENOTYPE	PHENOTYPE
CYP2C9	***1*1**	Normal Metabolizer

Cytochrome P450 2C9 is a phase I metabolic enzyme primarily expressed in the liver that shows genetic variation affecting drug clearance. Patients carrying your CYP2C9 genotype (normal metabolizers) may have a typical metabolism of substances like fluoxetine. Standard precautions apply. There's not enough clinical evidence to make a recommendation based on this interaction.

Other genetic and clinical factors may also influence fluoxetine metabolism.

Flurbiprofen (Ansaid®)

Pain / Non-opioid analgesics

GENE	GENOTYPE	PHENOTYPE
CYP2C9	***1*1**	Normal Metabolizer

The CYP2C9*1 allele is assigned as a normal function allele by CPIC. Patients carrying the CYP2C9*1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to flurbiprofen** as compared to patients carrying at least one copy of a decreased function or no function allele.
⭐⭐⭐

CPIC recommends initiating therapy with a recommended starting dose. In accordance with the prescribing information, use the lowest effective dosage for the shortest duration consistent with individual patient treatment goals.

Other genetic and clinical factors may also influence flurbiprofen metabolism.

Fluvoxamine (Luvox®)

Psychotropic / Antidepressants (SSRIs)

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of fluvoxamine.

Ibuprofen (Advil®, Motrin®)

Pain / Non-opioid analgesics

GENE	GENOTYPE	PHENOTYPE
CYP2C9	***1*1**	Normal Metabolizer

The CYP2C9*1 allele is assigned as a normal function allele by CPIC. Patients carrying the CYP2C9*1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to ibuprofen** as compared to patients carrying at least one copy of a decreased function or no function allele. However, conflicting evidence has been reported. ⭐⭐⭐

CPIC recommends initiating therapy with a recommended starting dose. In accordance with the prescribing information, use the lowest effective dosage for the shortest duration consistent with individual patient treatment goals.

Other genetic and clinical factors may also influence ibuprofen metabolism.

Imipramine (Tofranil®)

Psychotropic / Antidepressants (TCAs)

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

The CYP2C19*1 allele is assigned as a normal function allele by CPIC. Patients with the *1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to imipramine** compared to patients with a decreased or a no function allele but **decreased metabolism and increased exposure to imipramine** compared to patients with two increased function alleles or an increased function allele in combination with a normal function allele. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose.

Other genetic and clinical factors may also influence imipramine metabolism.

L-Methylfolate

Psychotropic / Supplements

GENE	GENOTYPE	PHENOTYPE
MTHFR	rs1801131 **TT** rs1801133 **AA**	

Methylenetetrahydrofolate reductase is an enzyme in folate metabolism that affects homocysteine levels and drug metabolism. You have normal MTHFR enzyme function at this genetic position, supporting efficient folate metabolism and neurotransmitter production. Your antidepressant medications should work as expected without requiring additional folate supplementation.

Methylenetetrahydrofolate reductase is an enzyme in folate metabolism that affects homocysteine levels and drug metabolism. You have significantly reduced MTHFR enzyme activity (only about 30% of normal function), which substantially impairs your body's ability to produce the active folate needed for neurotransmitter production and mood regulation. L-methylfolate supplementation is strongly recommended, alongside antidepressant therapy or as a monotherapy, to optimize treatment outcomes.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to L-methylfolate.

L-Tryptophan

Psychotropic / Supplements

GENE	GENOTYPE	PHENOTYPE
SLC6A4	rs25531 **TT**	

Solute carrier family 6 member 4 encodes the serotonin transporter that removes serotonin from synapses and regulates synaptic serotonin levels. You may have high serotonin transporter activity, meaning your brain efficiently removes serotonin from synapses. This typically leads to better response and fewer side effects with L-tryptophan. Standard precautions apply. However, please note this doesn't necessarily mean you carry two high-activity a.k.a. long 5-HTTLPR alleles — other genetic variants can also determine this allele. See this report for more information.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence L-tryptophan metabolism

Lamotrigine (Lamictal®)

Psychotropic / Mood stabilizers/Anticonvulsants

GENE	GENOTYPE	PHENOTYPE
UGT1A4	rs2011425 **TT**	

UDP glucuronosyltransferase 1A4 is a conjugation enzyme involved in phase II drug metabolism through glucuronidation. You have normal UGT1A4 liver enzyme activity, which means your body processes medications metabolized by this enzyme at typical rates. Standard dosing should be effective for drugs that undergo glucuronidation by this enzyme.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence lamotrigine metabolism

Lorazepam (Ativan®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
UGT2B15	rs1902023 **AC**	

UDP glucuronosyltransferase 2B15 is a conjugation enzyme that metabolizes steroid hormones and various medications. You have moderately reduced UGT2B15 liver enzyme activity, which may lead to slower metabolism of certain medications that are processed by this enzyme. Your doctor may consider monitoring your response more closely.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of lorazepam.

Meloxicam (Mobic®)

Pain / Non-opioid analgesics

GENE	GENOTYPE	PHENOTYPE
CYP2C9	***1*1**	Normal Metabolizer

The CYP2C9*1 allele is assigned as a normal function allele by CPIC. Patients carrying the CYP2C9*1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to meloxicam** as compared to patients carrying at least one copy of a decreased function or no function allele.
⭐⭐⭐

CPIC recommends initiating therapy with a recommended starting dose. In accordance with the prescribing information, use the lowest effective dosage for the shortest duration consistent with individual patient treatment goals.

Other genetic and clinical factors may also influence meloxicam metabolism.

Methylphenidate (Ritalin®, Concerta®, Daytrana®, Metadate®)

Psychotropic / ADHD Medications

GENE	GENOTYPE	PHENOTYPE
ADRA2A	rs1800544 **CC**	

Alpha-2A adrenergic receptor is a G-protein coupled receptor that mediates norepinephrine and epinephrine signaling in the sympathetic nervous system. You have a genetic variant associated with enhanced response to methylphenidate for ADHD treatment. You may achieve good symptom control with standard doses of methylphenidate-based medications, and may be more likely to benefit from this treatment approach.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to methylphenidate.

Miscellaneous

Psychotropic / Miscellaneous

GENE	GENOTYPE	PHENOTYPE
BDNF	rs6265 **TC**	

Brain-derived neurotrophic factor is a growth factor that supports neuron survival, growth, and synaptic plasticity in the brain. You have a genetic variant that reduces production of BDNF, a protein important for brain plasticity and stress resilience. This may make you less responsive to some antidepressants and more vulnerable to stress. Regular exercise naturally boosts BDNF levels, benefits mental health, and may enhance antidepressant effectiveness.

There is not enough evidence to make a clinical recommendation based on this interaction.

GENE	GENOTYPE	PHENOTYPE
CACNA1C	rs1006737 **GG**	

Calcium voltage-gated channel subunit alpha1 C encodes an L-type calcium channel important for neuronal excitability and cardiac function. You have normal calcium channel function in your brain, which is associated with typical brain excitability and no known increased psychiatric risk based on this genetic variant. This suggests a standard baseline risk profile for mood and psychotic disorders.

There is not enough evidence to make a clinical recommendation based on this interaction.

GENE	GENOTYPE	PHENOTYPE
COMT	rs4680 **AG**	

Catechol-O-methyltransferase is an enzyme that degrades dopamine, norepinephrine, and epinephrine, particularly in the prefrontal cortex. You have balanced dopamine breakdown in your brain, resulting in typical dopamine regulation. No specific medication adjustments are needed based on this genetic variant, and you should respond normally to standard treatments.

There is not enough evidence to make a clinical recommendation based on this interaction.

Mood stabilizers (Other)

Psychotropic / Mood stabilizers/Anticonvulsants

GENE	GENOTYPE	PHENOTYPE
ANK3	rs10994336 **CC**	

Ankyrin 3 encodes a structural protein that anchors membrane proteins to the cytoskeleton and is associated with bipolar disorder and other psychiatric conditions. You have normal sodium channel function related to this genetic variant. No specific pharmacogenomic considerations are necessary based on this result, and standard medication protocols should be followed.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to mood stabilizers.

Morphine (MS Contin®, Kadian®)

Pain / Opioids

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of morphine.

Naproxen (Aleve®, Naprosyn®)

Pain / Non-opioid analgesics

GENE	GENOTYPE	PHENOTYPE
CYP2C9	***1*1**	Normal Metabolizer

Cytochrome P450 2C9 is a phase I metabolic enzyme primarily expressed in the liver that shows genetic variation affecting drug clearance. Patients carrying your CYP2C9 genotype (normal metabolizers) may have a typical metabolism of substances like naproxen. Standard precautions apply. There's not enough clinical evidence to make a recommendation based on this interaction.

Other genetic and clinical factors may also influence naproxen metabolism.

Nortriptyline (Pamelor®)

Psychotropic / Antidepressants (TCAs)

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of nortriptyline.

Oxazepam (Serax®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
UGT2B15	rs1902023 **AC**	

UDP glucuronosyltransferase 2B15 is a conjugation enzyme that metabolizes steroid hormones and various medications. You have moderately reduced UGT2B15 liver enzyme activity, which may lead to slower metabolism of certain medications that are processed by this enzyme. Your doctor may consider monitoring your response more closely.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of oxazepam.

Oxcarbazepine (Trileptal®, Oxtellar®)

Psychotropic / Mood stabilizers/Anticonvulsants

GENE	GENOTYPE	PHENOTYPE
HLA-B	rs10484555 **TT**	

Human leukocyte antigen B is an immune system gene that presents peptides to T-cells and is associated with severe drug hypersensitivity reactions. You may not carry the high-risk genetic variant for severe skin reactions with seizure medications like carbamazepine and oxcarbazepine. Your doctor may prescribe these medications safely with standard monitoring. However, keep in mind this variant is just a proxy for the HLA-B*15:02 risk allele. Make sure to verify your actual HLA-B allele at a certified clinical lab before taking any action.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of oxcarbazepine.

Paroxetine (Paxil®)

Psychotropic / Antidepressants (SSRIs)

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of paroxetine.

Phenytoin/Fosphenytoin (Dilantin®, Cerebyx®)

Psychotropic / Mood stabilizers/Anticonvulsants

GENE	GENOTYPE	PHENOTYPE
CYP2C9	***1*1**	Normal Metabolizer

The CYP2C9*1 allele is assigned as a normal function allele by CPIC. Patients carrying the CYP2C9*1*1 genotype (normal metabolizers) **may have increased metabolism/clearance of phenytoin** as compared to patients carrying at least one copy of a decreased function or no function allele. However, conflicting evidence has been reported. ⭐⭐⭐

Patients carrying the CYP2C9*1*1 genotype **may have a decreased, but not absent, risk of drug toxicity when treated with phenytoin** as compared to patients who carry a no function allele or two decreased function alleles. However, conflicting evidence has been reported. ⭐⭐⭐

According to CPIC, no adjustments are needed from typical dosing strategies. Subsequent doses should be adjusted according to therapeutic drug monitoring, response, and side effects.

Other genetic and clinical factors may also influence phenytoin metabolism and toxicity.

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

Cytochrome P450 2C19 is a phase I metabolic enzyme primarily expressed in the liver that exhibits significant genetic polymorphism affecting drug metabolism. Patients with this CYP2C19 genotype (normal metabolizers) may have typical metabolism of substances like phenytoin . Standard precautions apply.

Other genetic and clinical factors may also influence phenytoin metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of phenytoin/fosphenytoin.

Piroxicam (Feldene®)

Pain / Non-opioid analgesics

GENE	GENOTYPE	PHENOTYPE
CYP2C9	***1*1**	Normal Metabolizer

The CYP2C9*1 allele is assigned as a normal function allele by CPIC. Patients carrying the CYP2C9*1*1 genotype (normal metabolizers) **may have increased metabolism and decreased exposure to piroxicam** as compared to patients carrying at least one copy of a decreased function or no function allele.
⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose. In accordance with the prescribing information, use the lowest effective dosage for the shortest duration consistent with individual patient treatment goals.

Other genetic and clinical factors may also influence piroxicam metabolism.

SSRIs (Other)

Psychotropic / Antidepressants (SSRIs)

GENE	GENOTYPE	PHENOTYPE
HTR2A	rs7997012 **GA**	

Serotonin receptor 2A is a G-protein coupled receptor that mediates serotonin signaling in the central nervous system. You have a genetic variant associated with a typical response to antidepressants like SSRIs. Standard treatment guidelines may apply.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to SSRIs.

St. John's Wort

Psychotropic / Supplements

GENE	GENOTYPE	PHENOTYPE
SLC6A4	rs25531 **TT**	

Solute carrier family 6 member 4 encodes the serotonin transporter that removes serotonin from synapses and regulates synaptic serotonin levels. You may have high serotonin transporter activity, meaning your brain efficiently removes serotonin from synapses. This typically leads to better response and fewer side effects with St. John's Wort. Standard precautions apply. However, please note this doesn't necessarily mean you carry two high-activity a.k.a. long 5-HTTLPR alleles — other genetic variants can also determine this allele. See this report for more information.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence St. John's Wort metabolism

Temazepam (Restoril®)

Psychotropic / Anxiolytics

GENE	GENOTYPE	PHENOTYPE
UGT2B15	rs1902023 **AC**	

UDP glucuronosyltransferase 2B15 is a conjugation enzyme that metabolizes steroid hormones and various medications. You have moderately reduced UGT2B15 liver enzyme activity, which may lead to slower metabolism of certain medications that are processed by this enzyme. Your doctor may consider monitoring your response more closely.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of temazepam.

Topiramate (Topamax®)

Psychotropic / Mood stabilizers/Anticonvulsants

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of topiramate.

GENE	GENOTYPE	PHENOTYPE
GRIK1	rs2832407 **AC**	

Glutamate ionotropic receptor kainate type subunit 1 is part of excitatory neurotransmitter receptors involved in synaptic transmission. You have typical glutamate signaling related to this genetic variant, with no established impact on topiramate response. Standard dosing and monitoring protocols should be followed, and you can expect typical benefits from topiramate.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence response to topiramate.

Trifluoperazine (Stelazine®)

Psychotropic / Antipsychotics (1st generation)

GENE	GENOTYPE	PHENOTYPE
UGT1A4	rs2011425 **TT**	

UDP glucuronosyltransferase 1A4 is a conjugation enzyme involved in phase II drug metabolism through glucuronidation. You have normal UGT1A4 liver enzyme activity, which means your body processes medications metabolized by this enzyme at typical rates. Standard dosing should be effective for drugs that undergo glucuronidation by this enzyme.

There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of trifluoperazine.

Trimipramine (Surmontil®)

Psychotropic / Antidepressants (TCAs)

GENE	GENOTYPE	PHENOTYPE
CYP2C19	***1*1**	Normal Metabolizer

The CYP2C19*1 allele is assigned as a normal function allele by CPIC. Patients with the *1*1 genotype (normal metabolizer) **may have increased metabolism and decreased exposure to trimipramine** compared to patients with at least one decreased or no function allele. ⭐⭐⭐

CPIC recommends initiating therapy with the recommended starting dose.

Other genetic and clinical factors may also influence trimipramine metabolism.

GENE	GENOTYPE	PHENOTYPE
ABCB1	rs1045642 **GG** rs2032583 **AA**	

ATP Binding Cassette B1 encodes for P-glycoprotein (P-gp). P-gp is a drug efflux pump that reduces the intestinal absorption and blood-brain barrier penetration of certain drugs. You have normal P-glycoprotein pump activity, which means your body processes and eliminates many medications at typical rates. This transporter protein helps control drug absorption in your intestines and drug penetration across the blood-brain barrier. Standard precautions apply for most medications that are substrates of this pump.

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There is not enough evidence to make a clinical recommendation based on this interaction. Other genetic and clinical factors may also influence the metabolism of trimipramine.

Valproate (Depakote®, Depakene®)

Psychotropic / Mood stabilizers/Anticonvulsants

GENE	GENOTYPE	PHENOTYPE
CYP2C9	*1*1	Normal Metabolizer

Cytochrome P450 2C9 is a phase I metabolic enzyme primarily expressed in the liver that shows genetic variation affecting drug clearance. Patients carrying your CYP2C9 genotype (normal metabolizers) may have a typical metabolism of substances like valproate. Standard precautions apply. There's not enough clinical evidence to make a recommendation based on this interaction.

Other genetic and clinical factors may also influence valproate metabolism.

Genetic test details

Genes	Genotype	Phenotype	Drugs
ABCB1	rs1045642 **GG** rs2032583 **AA**		Amitriptyline (Elavil®), Aripiprazole (Abilify®), Armodafinil (Nuvigil®), Citalopram (Celexa®), Clozapine (Clozaril®), Codeine, Escitalopram (Lexapro®), Fentanyl (Duragesic®), Fluvoxamine (Luvox®), Modafinil (Provigil®), Morphine (MS Contin®, Kadian®), Nortriptyline (Pamelor®), Olanzapine (Zyprexa®), Oxycodone (OxyContin®), Paroxetine (Paxil®), Phenytoin/Fosphenytoin (Dilantin®, Cerebyx®), Risperidone (Risperdal®), Sertraline (Zoloft®), Topiramate (Topamax®), Tramadol (Ultram®), Trimipramine (Surmontil®)
ADRA2A	rs1800544 **CC**		Dextroamphetamine (Dexedrine®, Procentra®, Zenzedi®), Methylphenidate (Ritalin®, Concerta®, Daytrana®, Metadate®)
ANK3	rs10994336 **CC**		Mood stabilizers (Other)
BDNF	rs6265 **TC**		Miscellaneous
CACNA1C	rs1006737 **GG**		Miscellaneous
COMT	rs4680 **AG**		Miscellaneous
CYP1A2	rs762551 **AA** rs2069514 **GG** rs2470890 **TC**		Caffeine, Melatonin
CYP2B6	***1*6**	Likely Intermediate Metabolizer	Bupropion (Wellbutrin®), Esketamine (Spravato®), Meperidine (Demerol®), Methadone (Dolophine®, Methadose®), Selegiline (Eldepryl®, Emsam®), Sertraline (Zoloft®)
CYP2C19	***1*1**	Normal Metabolizer	Amitriptyline (Elavil®), Cannabidiol (CBD) (Epidiolex®), Carisoprodol (Soma®), Citalopram (Celexa®), Clomipramine (Anafranil®), Diazepam (Valium®), Doxepin (Sinequan®), Escitalopram (Lexapro®), Imipramine (Tofranil®), Phenytoin/Fosphenytoin (Dilantin®, Cerebyx®), Ramelteon (Rozerem®), Sertraline (Zoloft®), Trimipramine (Surmontil®), Venlafaxine (Effexor®)
CYP2C9	***1*1**	Normal Metabolizer	Celecoxib (Celebrex®), Diclofenac (Voltaren®, Cataflam®), Fluoxetine (Prozac®), Flurbiprofen (Ansaid®), Ibuprofen (Advil®, Motrin®), Meloxicam (Mobic®), Naproxen (Aleve®, Naprosyn®), Phenytoin/Fosphenytoin (Dilantin®, Cerebyx®), Piroxicam (Feldene®), Valproate (Depakote®, Depakene®)
CYP3A4	***1*1**	Normal Metabolizer	Alfentanil (Alfenta®), Alprazolam (Xanax®), Aripiprazole (Abilify®), Armodafinil (Nuvigil®), Brexpiprazole (Rexulti®), Buprenorphine (Butrans®), Buprenorphine/Naloxone (Suboxone®), Buspirone (Buspar®), Cannabidiol (CBD)

Genes	Genotype	Phenotype	Drugs
			(Epidiolex®), Carbamazepine (Equetro®, Tegretol®), Cariprazine (Vraylar®), Chlordiazepoxide (Librium®), Clonazepam (Klonopin®), Dextromethorphan/Quinidine (Nuedexta®), Diazepam (Valium®), Eszopiclone (Lunesta®), Fentanyl (Duragesic®), Guanfacine (Intuniv®), Haloperidol (Haldol®), Hydrocodone (Vicodin®, Norco®, Lorcet®), Iloperidone (Fanapt®), Levomilnacipran (Fetzima®), Lurasidone (Latuda®), Meperidine (Demerol®), Methadone (Dolophine®, Methadose®), Mirtazapine (Remeron®), Modafinil (Provigil®), Nefazodone, Oxycodone (OxyContin®), Pimavanserin (Nuplazid®), Pimozide (Orap®), Quetiapine (Seroquel®), Ramelteon (Rozerem®), Risperidone (Risperdal®), Suvorexant (Belsomra®), Tramadol (Ultram®), Trazodone (Desyrel®, Oleptro®), Valbenazine (Ingrezza®), Venlafaxine (Effexor®), Vilazodone (Viibryd®), Vortioxetine (Trintellix®), Zaleplon (Sonata®), Ziprasidone (Geodon®), Zolpidem (Ambien®)
CYP3A5	***3*3**	Poor Metabolizer	Alfentanil (Alfenta®), Alprazolam (Xanax®), Aripiprazole (Abilify®), Armodafinil (Nuvigil®), Brexpiprazole (Rexulti®), Buprenorphine (Butrans®), Buprenorphine/Naloxone (Suboxone®), Buspirone (Buspar®), Cannabidiol (CBD) (Epidiolex®), Carbamazepine (Equetro®, Tegretol®), Cariprazine (Vraylar®), Chlordiazepoxide (Librium®), Clonazepam (Klonopin®), Dextromethorphan/Quinidine (Nuedexta®), Diazepam (Valium®), Eszopiclone (Lunesta®), Fentanyl (Duragesic®), Guanfacine (Intuniv®), Haloperidol (Haldol®), Hydrocodone (Vicodin®, Norco®, Lorcet®), Iloperidone (Fanapt®), Levomilnacipran (Fetzima®), Lurasidone (Latuda®), Meperidine (Demerol®), Methadone (Dolophine®, Methadose®), Mirtazapine (Remeron®), Modafinil (Provigil®), Nefazodone, Oxycodone (OxyContin®), Pimavanserin (Nuplazid®), Pimozide (Orap®), Quetiapine (Seroquel®), Ramelteon (Rozerem®), Risperidone (Risperdal®), Suvorexant (Belsomra®), Tramadol (Ultram®), Trazodone (Desyrel®, Oleptro®), Valbenazine (Ingrezza®), Venlafaxine (Effexor®), Vilazodone (Viibryd®), Vortioxetine (Trintellix®), Zaleplon (Sonata®), Ziprasidone (Geodon®), Zolpidem (Ambien®)
GRIK1	rs2832407 **AC**		Topiramate (Topamax®)
HLA-A	rs1061235 **AA**		Carbamazepine (Equetro®, Tegretol®)
HLA-B	rs10484555 **TT**		Carbamazepine (Equetro®, Tegretol®), Oxcarbazepine (Trileptal®, Oxtellar®)
HTR2A	rs7997012 **GA**		SSRIs (Other)
HTR2C	rs3813929 **C**		Aripiprazole (Abilify®), Brexpiprazole (Rexulti®), Clozapine (Clozaril®), Iloperidone (Fanapt®), Olanzapine (Zyprexa®), Paliperidone (Invega®), Quetiapine (Seroquel®), Risperidone (Risperdal®)
MC4R	rs489693 **CC**		Aripiprazole (Abilify®), Brexpiprazole (Rexulti®), Clozapine (Clozaril®), Iloperidone (Fanapt®), Olanzapine (Zyprexa®), Paliperidone (Invega®), Quetiapine (Seroquel®), Risperidone (Risperdal®)

Genes	Genotype	Phenotype	Drugs
MTHFR	rs1801131 **TT** rs1801133 **AA**		L-Methylfolate
OPRM1	rs1799971 **GA**		Opioids (Other)
SLC6A4	rs25531 **TT**		5-HTP, L-Tryptophan, St. John's Wort
UGT1A4	rs2011425 **TT**		Asenapine (Saphris®), Lamotrigine (Lamictal®), Trifluoperazine (Stelazine®)
UGT2B15	rs1902023 **AC**		Acetaminophen (Tylenol®), Chlordiazepoxide (Librium®), Clorazepate (Tranxene®), Diazepam (Valium®), Lorazepam (Ativan®), Oxazepam (Serax®), Temazepam (Restoril®)

About the report

This test does not report polymorphisms other than those specifically listed, and mutations in other genes associated with drug metabolism will not be detected.

Metabolizer type reporting is limited to the following alleles:
CYP2B6: *1, *2, *4, *5, *6, *9, *18, *22, *26, *28, *38
CYP2C9: *1, *2, *3, *4, *5, *6, *8, *11, *12, *13, *15, *27
CYP2C19: *1, *2, *3, *4, *5, *6, *7, *8, *9, *10 & *17
CYP3A4: *1, *3, *18, *20 & *22.
CYP3A5: *1, *3, *6 & *7
Any allele identified as a default star-allele (CYP2B6*1, CYP2C9 *1, CYP2C19 *1, CYP3A4 *1, CYP3A5 *1) indicates the absence only of the other alleles listed and does not imply that other variants in the gene are absent.

Gene deletions and duplications are not analyzed in this report.