

# Pharmacogenetics (PGx) Sample Report

A confidential personalized guide to how the patient's unique genetic information affects their body's response to medications.

Report PDF Downloaded 2024-04-12		Patient ID	51815352124735
PDF Type	Health Care Professional Report	Date Of Birth	1999-07-07
Guide to Understa	nding Your Report	A how-to guide for reading Pharmacogenetics (PGx) Re	
Important Test Ins	ights	A list of the medications in are classified as either DC CAUTION, based on the ge detected.	NOT USE or USE WITH
Your Report Over	view	A high-level overview/sum all medications included in	mary of the test results for this report.
Your Detailed Rec	ommendations	Detailed recommendations included in this report.	s for all medications
Analysis of Your G	ene Profile	A complete list of the gener that are known to impact medications included in thi	responses to the
Test Information		Glossary of terms, test info	rmation & legal content.

If you have any questions about this report, contact us by email at inquiries@getcheckedclinic.com.

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## Guide to Understanding Your Report

This section provides a how-to guide for reading and understanding the Getchecked Clinic's Report. The FULL report (which includes detailed insights and recommendations for ALL medications included in this report) is available to view in thesection called **"Detailed Recommendations"**. You can also view a high-level summary of the overall results in the section called **"Report Overview"**.

#### How are Your Results Organized?

Four classifications provide you with quick insight into the general results of the test for each specific medication.



#### Do Not Use

When a medication has been labelled as **"Do Not Use"** it means that **this medication is NOT recommended, and using an alternative medication is recommended instead**, based on possible lack of effect or possible adverse side effects that could occur in individuals with this unique genetic profile. (Note: There may be rare circumstances where the prescriber may still choose to prescribe the medication based on his/her discretion, lack of suitable alternatives, and/or other nongenetic factors.)

#### Use with Caution

When a medication is labelled "Use with Caution" it means that one or more gene-drug interactions have been identified that may impact the drug's effectiveness or tolerability. Based on available data, response to the medication is expected to be different from most people (for example, it may not provide the expected therapeutic effect at the standard recommended dose, or may result in increased risk of side effects in individuals with this unique genetic profile.)

For any medications labelled as **"Use with Caution"**, you should familiarize yourself with the identified risks and personalized recommendations provided in the Detailed Recommendations section of the report. This is also important information to share with any prescribers/the health care team, as it may impact decisions about treatment. In some cases, a different dose may be required, and in other cases the medication may not be recommended at all, based on the predicted response.

#### Use as Directed\*

When a medication has been labelled "Use As Directed\*" it means that no altered gene-drug interaction has been identified, therefore based on currently available data\*\*, response to the medication is expected to be similar to most other individuals at standard doses, and no individualized prescribing recommendations are provided as a result.

#### Use as Directed/Preferred\*

When a medication has been labelled "Use As Directed - Preferred\*" it means that one or more altered gene-drug interactions have been identified that have been linked to an increased likelihood of responding to the medication (in other words, based on available data\*\*, this medication has a higher likelihood of being effective for the individual tested, than it would be for most people (based on their unique genetic profile). In some cases (not always), an individual prescribing recommendation may be provided (for example, should an altered dose be recommended).

## IMPORTANT NOTES

\* If a medication is categorized as **"Use As Directed"** or **"Use As Directed/Preferred"** it does not mean the medication is guaranteed to work well, or that no side effects will be experienced. Genetics is only one of many factors impacting how individuals will respond to medications. Other factors influencing drug response may include environment, overall health, lifestyle choices, other health conditions, other medications being taken, and other factors.

\*\* Pharmacogenetics studies are still ongoing and additional drug - gene interactions may be discovered in the future.

# Important Test Insights

Below you will find a list of those medications that are classified as: "DO NOT USE", as well as those categorized as "USE WITH CAUTION", based on the gene-drug interactions that were identified through testing.

**IMPORTANT:** Please review the previous section entitled "Guide to Understanding the Report" for guidance on how to interpret these results. Refer to the section entitled "Detailed Recommendations" in the pages that follow to view the detailed, personalized recommendations provided for each of the drugs listed below.

# Medications Classified As: Do Not UseCarbamazepineClopidogrelPrimaquineRasburicase

# **Medications Classified As: Use with Caution**

J	Acetylsalicylic Acid	l	Amifampridine	Ð	Amitriptyline
J	Atomoxetine	0	Atorvastatin	Ð	Brivaracetam
J	Bupivacaine	0	Chloroquine	Ð	Ciprofloxacin
0	Citalopram	0	Clobazam	Ð	Clomipramine
0	Codeine	0	Dabrafenib	Ð	Dapsone
0	Desipramine	0	Dexlansoprazole	Ð	Doxepin
0	Escitalopram	Ð	Glimepiride	Ð	Glyburide
0	Hydrocodone	Ð	Hydroxychloroquine	Ð	Imipramine
0	Isoniazid	0	Lansoprazole	Ð	Lidocaine
0	Lidocaine and Prilocaine	0	Lidocaine and Tetracaine	Ð	Mepivacaine
0	Methylene blue		Metoprolol	Ð	Nitrofurantoin
0	Nitroglycerin	0	Norfloxacin	Ð	Nortriptyline
0	Ofloxacin	l	Omeprazole	Ð	Oxycodone
0	Pantoprazole	0	Paroxetine	Ð	Peginterferon alfa-2a
0	Pimozide		Prilocaine	Ð	Quinine



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Rifampin

Sulfadiazine

Tacrolimus

Vitamin C

Ropivacaine

**ulfamethoxazole and** Trimethoprim

Tramadol

Warfarin

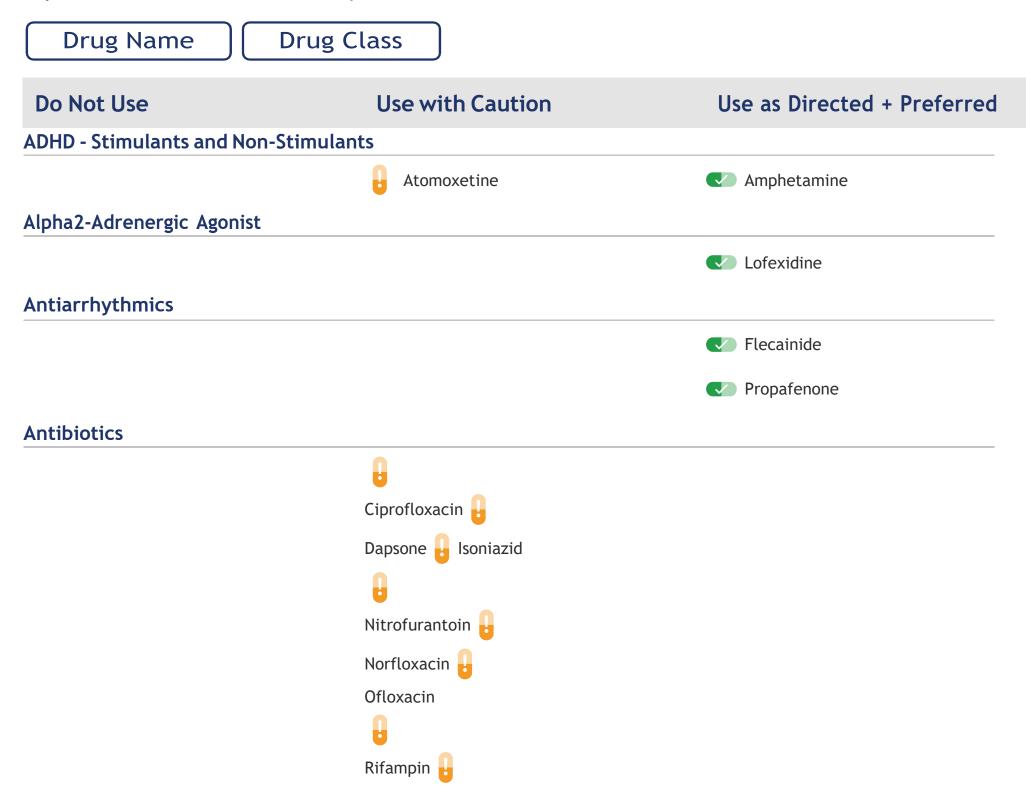
Sertraline
Sulfasalazine
Trimipramine
Zuclopenthixol

# Your Report Overview

This section provides an overall (high-level) summary of the test results. Please review the previous section entitled "Guide to Understanding the Report" for guidance on how to interpret these results. Refer to the section entitled "Detailed Recommendations" in the pages that follow to view the detailed, personalized recommendations provided for each of the drugs listed.

**Note:** If you are looking for a medication that does NOT appear on this summary, it is either because that medication is not currently available in the US and Canada, or because (to the best of our knowledge) there are no actionable associations for that medication based on the genes we test for at this time.

#### Report Overview results are sorted by



Sulfadiazine Sulfamethoxazole and Trimethoprim









**Antidepressants - Others** 







## **Antimalarials**

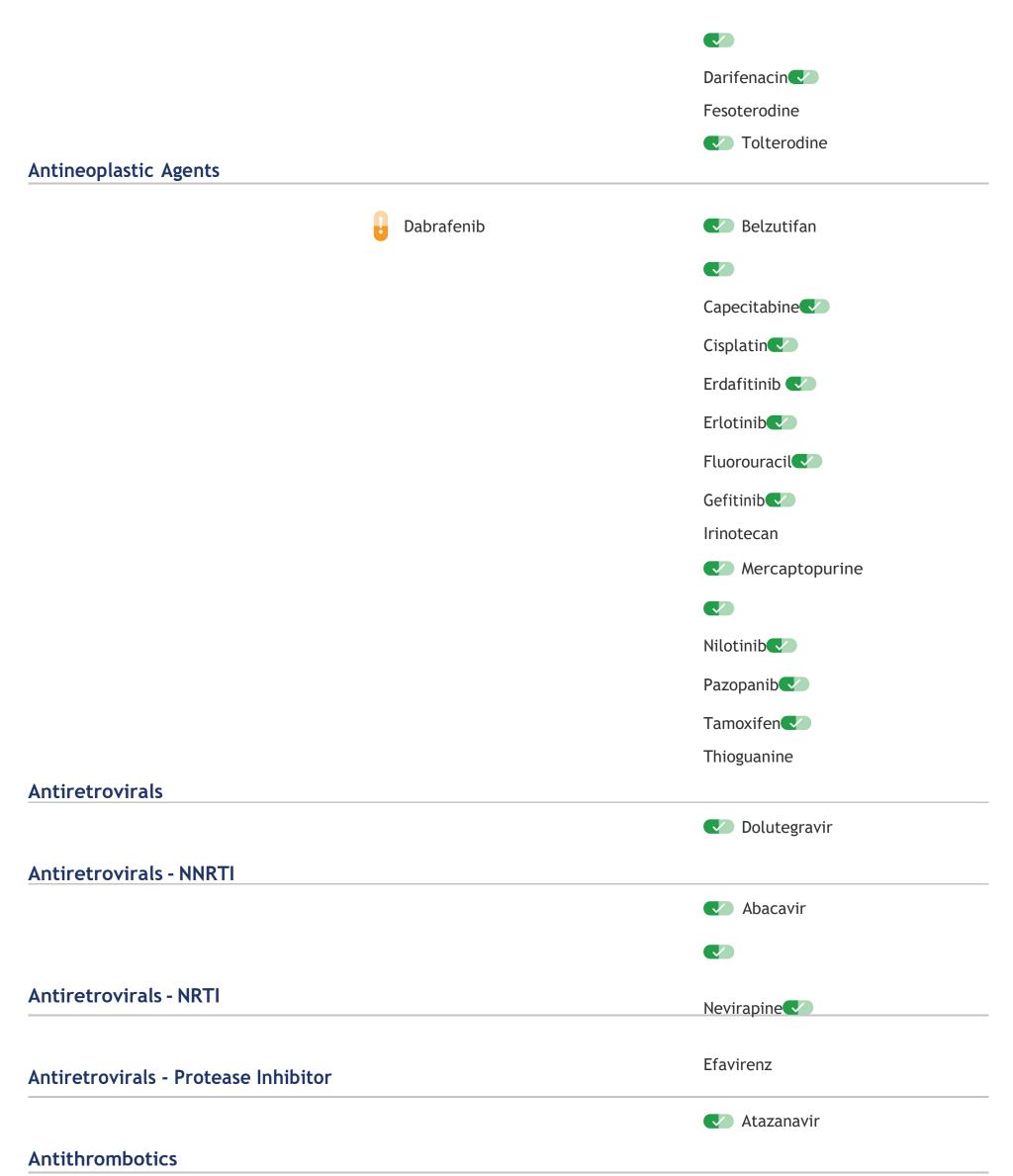
Primaquine

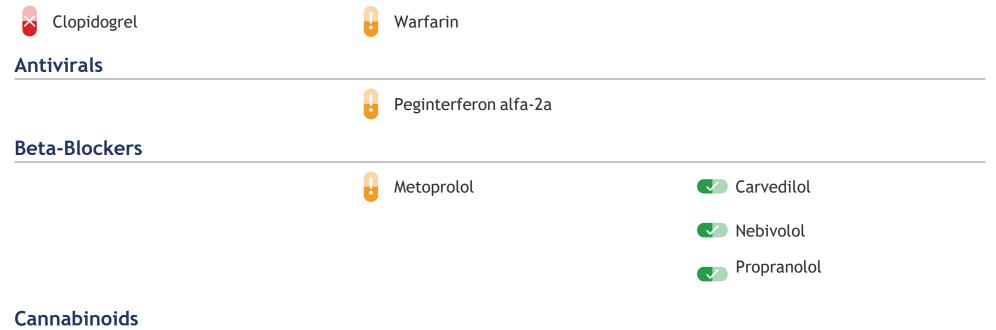


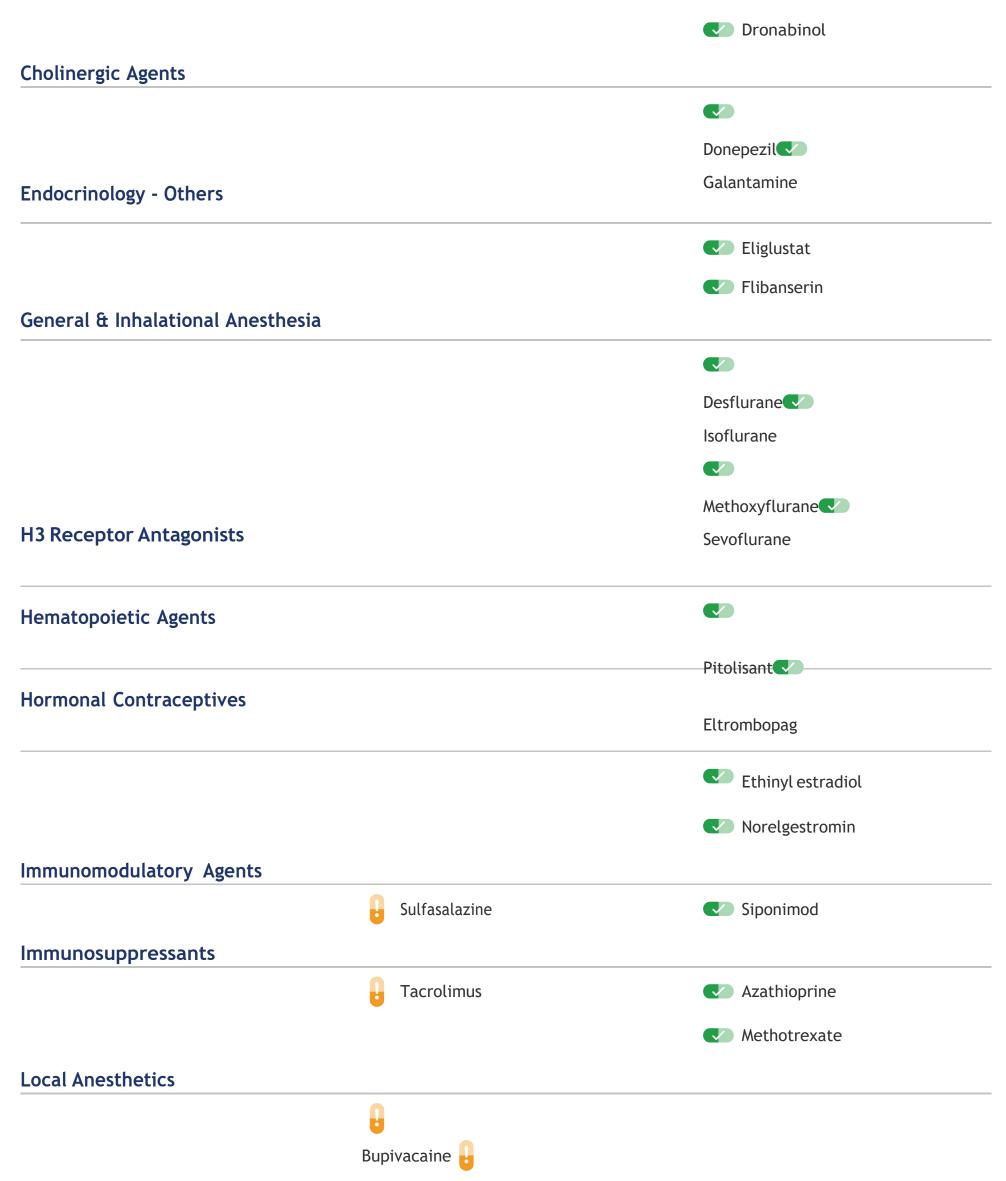
Quinine

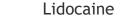
Hydroxychloroquine

## Antimuscarinics









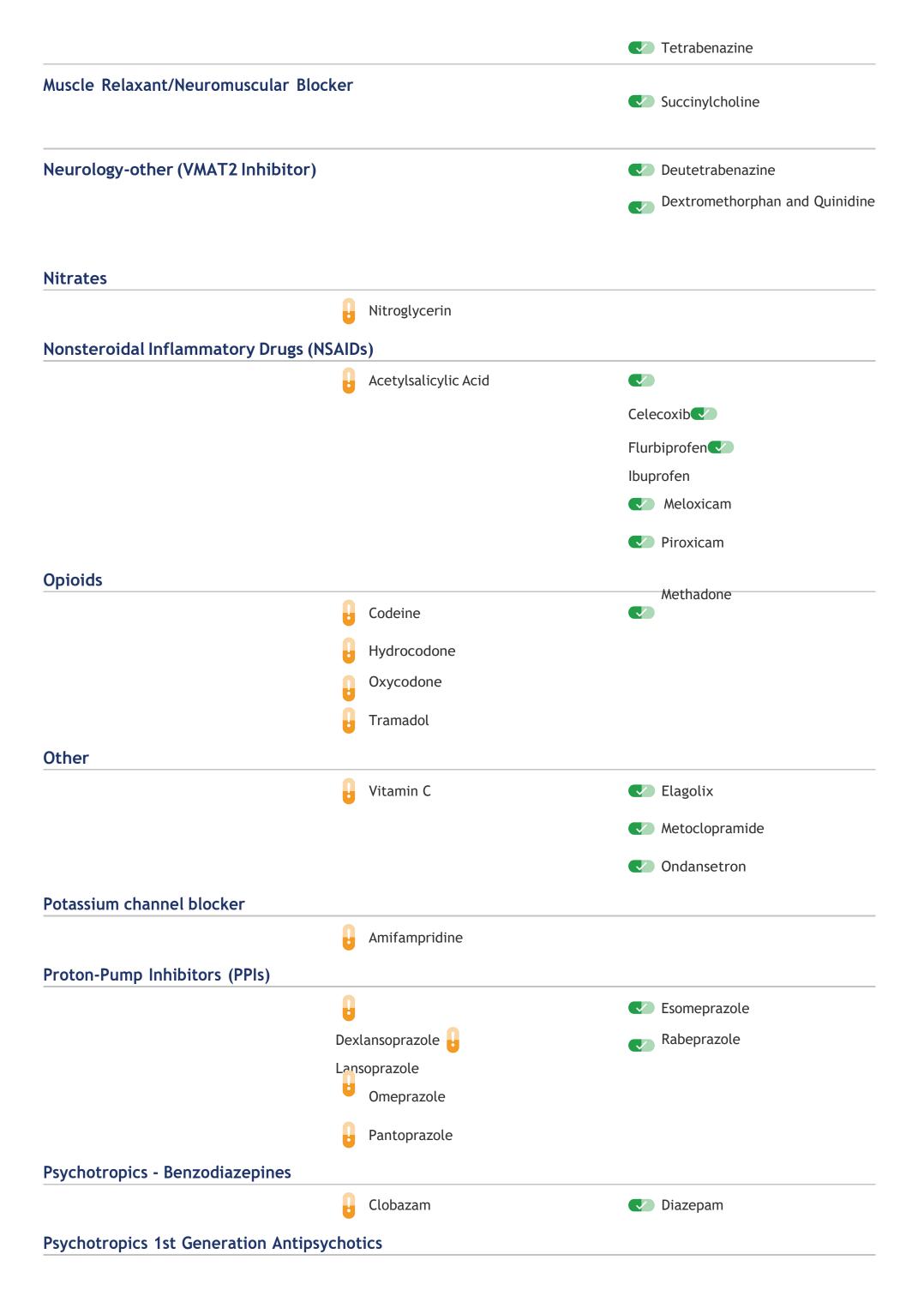
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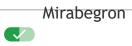


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8	Pimozide	Haloperidol
8	Zuclopenthixol	Perphenazine
		Thioridazine
Psychotropics 2nd Generation Antipsycho	tics	
		Aripiprazole
		Brexpiprazole
		Clozapine
		lloperidone
		Quetiapine
		Risperidone
Selective Alfa-1-Adrenergic Blocking Ager	nts	
Selective Beta 2-adrenergic Agonists (SAB	SAS)	Tamsulosin
Selective Estrogen Receptor Modulators		Salmeterol
		Ospemifene
Statins - HMG-COA Reductase Inhibitors		
8	Atorvastatin	Fluvastatin
		Lovastatin
		Pravastatin
		Rosuvastatin
		Simvastatin
Uricolytic Agent/Enzymes		
Rasburicase		
Uricosuric/Antigout Agents		
		Allopurinol
Urinary Anticoacmodic (Solactivo Rota 2 /	(dronorgia Agonista)	·

Urinary Antispasmodic (Selective Beta 3-Adrenergic Agonists)



# Your Detailed Recommendations

This section provides a detailed look at the predicted response to all medications included in this report, and includes any/all personalized recommendations regarding their use. (The drugs are listed by generic name and in alphabetical order.)

**Note:** Please review the previous section entitled "Guide to Understanding the Report" for guidance on how to interpret these results. Abacavir **Antiretrovirals - NNRTI** Kivexa, Triumeq, Trizivir, Ziagen Acetylsalicylic Acid Nonsteroidal Inflammatory Drugs (NSAIDs) Н ASA, Aggrenox, Aspirin Response to medication may be impacted by gene: G6PD You might be at an increased risk of side effects from this medication. These include homolysis and hemolytic anemia and are more likely at high doses, with fever, or acute infections. Source: Swissmedic Allopurinol **Uricosuric/Antigout Agents**  $\checkmark$ Aloprim, Zyloprim Amifampridine Potassium channel blocker b Firdapse, Ruzurgi Response to medication may be impacted by gene: NAT2 You may have an increased risk of experiencing higher medication levels in your body, and an increased risk of side effects. The lowest recommended starting dose should be prescribed. Side effects should be monitored closely. Source: FDA Amitriptyline **Antidepressants - Tricyclic** Elavil Response to medication may be impacted by gene: CYP2D6 & CYP2C19 Your prescriber should consider a 25% reduction in the recommended starting dose. Source: CPIC - A

Amphetamine



ADHD - Stimulants and Non-Stimulants

Aripiprazole	Psychotropics 2nd Generation Antipsychotics
Abilify	
Atazanavir	Antiretrovirals - Protease Inhibitor
Evotaz, Reyataz	

Atomoxetine	ADHD - Stimulants and Non-Stimulants
Strattera	Response to medication may be impacted by gene: CYP2D6
	For children: Start with 0.5 mg/kg/day. If no response after 2 weeks and no adverse effects, check plasma concentration after 2-4 hours for intermediate metabolizers or 4 hours for poor metabolizers. Increase dose to approach 400ng/ml if concentration is < 200 ng/ml. Reduce dose if there are side effects. For adults: Start with 40 mg/day, increase to 80 mg/day if no response after 2 weeks. Check plasma concentration if response is inadequate. Increase dose if concentration is < 200 ng/ml. Reduce dose if there are side effects.
	Source: <u>CPIC - A</u>
Atorvastatin Caduet, Lipitor, Lypqozet	Statins - HMG-COA Reductase Inhibitors
Caddet, Lipitor, Lypqozet	Response to medication may be impacted by gene: APOE
	This medication may be less effective for you.
	Source: PharmGKB-2A
Azathioprine	Immunosuppressants
Imuran	
Belzutifan	Antineoplastic Agents
Welireg	
Brexpiprazole	Psychotropics 2nd Generation Antipsychotics
Rexulti	
Brivaracetam	Anticonvulsants
Briviact, Brivlera	Response to medication may be impacted by gene: CYP2C19
	You are at an increased risk of experiencing a higher concentration of medication in your body, and an increased risk of side effects.
	Source: FDA
Bupivacaine	Local Anesthetics
Exparel, Marcaine, Sensorcaine, Vivacaine	Response to medication may be impacted by gene: G6PD

## Response to medication may be impacted by gene: G6PD

You may be at an increased risk of experiencing a certain blood condition (methemoglobinemia) if you take this medication. If this or other local anesthetics are prescribed, you should be closely monitored for signs and symptoms of

methemoglobinemia.





Carbatrol, Equetro, Tegretol



Response to medication may be impacted by gene: HLA-A

You should not be prescribed this medication due to the risk of specific side effects(SJS/TEN, DRESS, and MPE). If you take this medication, you should be carefully monitored for side effects for the first three months, at which point you side effect risk is decreased.

Source: <u>CPIC - A</u>

Carvedilol	Beta-Blockers
Coreg	
Celecoxib	Nonsteroidal Inflammatory Drugs (NSAIDs)
Celebrex, Seglentis	
Chloroquine	Antimalarials
Aralen	Response to medication may be impacted by gene: G6PD
	This medication may cause you to experience a specific blood side effect (hemolysis). Blood monitoring may be needed as a medical condition called "hemolytic anemia" may arise.
	Source: <u>FDA</u>
Ciprofloxacin	Antibiotics
Cipro	Response to medication may be impacted by gene: G6PD
	This genotype has been associated hemolytic reactions to quinolones. Your prescriber should use ciprofloxacin with caution.
	Source: <u>Swissmedic</u>
Cisplatin	Antineoplastic Agents
Platinol	
Citalopram	Antidepressants - SSRI
Celexa	•

Your prescriber should initiate therapy with recommended starting dose and consider a slower adjustment schedule and lower maintenance dose.

#### Clobazam

Frisium

**Psychotropics - Benzodiazepines** 

Response to medication may be impacted by gene: CYP2C19

You are at an increased risk of experiencing a higher concentration of medication in your body, and an increased risk of side effects as a result. Your prescriber should adjust your dose.

Source: FDA

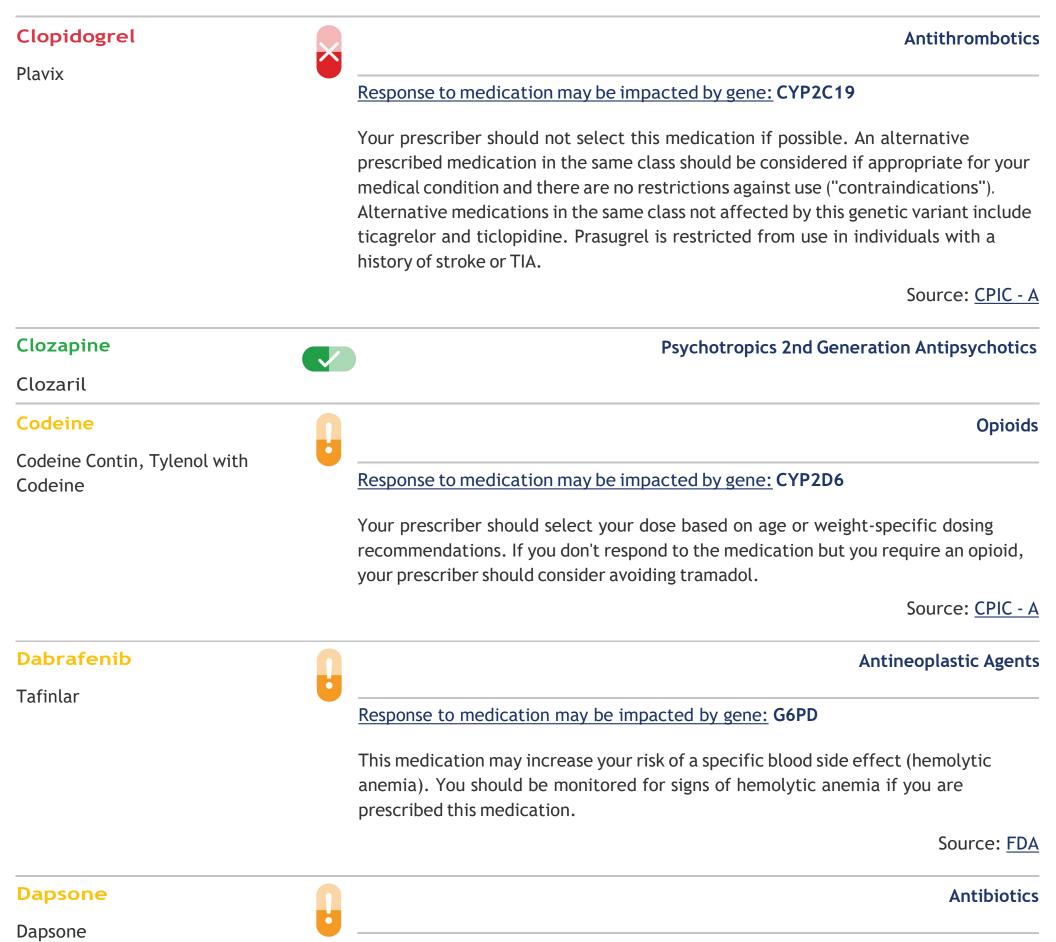
Clomipramine

Anafranil

Response to medication may be impacted by gene: CYP2D6 & CYP2C19

Your prescriber should consider a 25% reduction in the recommended starting dose.

Source: CPIC - A



If you are being treated with this medication, in combination with two other medications (artesunate and chlorproguanil) for malaria, you may have an increased risk of specific side effects in your blood (hemolysis, severe/unsafe hemoglobin decreases).

Source: PharmGKB-1B



Antidepressants - Tricyclic
d by gene: CYP2D6
one quarter (25%) of the recommended to the medication (therapeutic drug
Source: <u>CPIC</u>
Neurology-other (VMAT2 Inhibitor)
Proton-Pump Inhibitors (PPIs)
d by gene: CYP2C19
I starting daily dose. If effective and being (s), your prescriber should consider oring for continued effect.
Source: <u>CPIC - A</u>
Antidepressants - Others
Neurology-other (VMAT2 Inhibitor)
Psychotropics - Benzodiazepines
Antiretrovirals
Chalin annia Aranta
Cholinergic Agents
Cholinergic Agents
Antidepressants - Tricyclic

Your prescriber should consider a 25% reduction in the recommended starting dose.

Source: <u>CPIC - A</u>



Eligiustat Cerdelga Eltrombopag Promacta, Revolade Erdafitnib Revolade Erdafitnib Response to medication may be impacted by gene; CYP2C19 Your prescriber should initiate therapy with recommended starting dose and consider a slower adjustment schedule and lower maintenance dose. Source: CPI Esomeprazole Nexium, Vimovo Ethinyl estradiol Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale,	Elagolix		Other
Erdelga Eltrombopag Hematopoietic Ag Promacta, Revolade Erdafitnib Antineoplastic Ag Balversa Erlotinib Antineoplastic Ag Tarceva Escitatopram Cipratex, Lexapro Proton-Pump Inhibitors (0 Nexium, Vimovo Ethinyl estradiol Hormonal Contracept Antimuscar Toviaz Fesoterodine Antimesia Fibanserin Antimesia Endocrinology - Ot Addyi	Oriahnn, Orilissa		
Eltrombopag Hematopoietic Ag Promacta, Revolade Erdafithib Antineoplastic Ag Balversa Erlotinib Antineoplastic Ag Tarceva Escitalopram Cipralex, Lexapro Cip	Eliglustat		Endocrinology - Others
Promacta, Revolade  Erdafitinib Antineoplastic Ag Balversa  Erlotinib Tarceva  Escitalopram Cipralex, Lexapro  Response to medication may be impacted by gene: CYP2C19 Your prescriber should initiate therapy with recommended starting dose and consider a slower adjustment schedule and lower maintenance dose. Source: CPI Esomeprazole Nexium, Vimovo Ethinyl estradiol Altesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Toviaz Flecainide Flibanserin Antiarhyth Flecainide Flibanserin Antiario	Cerdelga		
Erdafitinib Antineoplastic Ag Balversa Cipralex, Lexapro Antidepressants - Cipralex, Lexapro V Response to medication may be impacted by gene: CYP2C19 Your prescriber should initiate therapy with recommended starting dose and consider a slower adjustment schedule and lower maintenance dose. Source: CPI Esomeprazole Proton-Pump Inhibitors (I Nexium, Vimovo Ethinyl estradiol Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Antimuscar Toviaz Flecainide Flibanserin Addyi	Eltrombopag		Hematopoietic Agents
Balversa Erlotinib Antineoplastic Ag Tarceva Escitalopram Cipralex, Lexapro Proton-Pump Inhibitors (I Nexium, Vimovo Ethinyl estradiol Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Toviaz Flecainide Flibanserin Endocrinology - Ot Addyi	Promacta, Revolade		
Erlotinib Tarceva Cipralex, Lexapro Cipralex, Le	Erdafitinib		Antineoplastic Agents
Tarceva  Escitalopram Cipralex, Lexapro  Response to medication may be impacted by gene: CYP2C19 Your prescriber should initiate therapy with recommended starting dose and consider a slower adjustment schedule and lower maintenance dose. Source: CPI Esomeprazole Nexium, Vimovo  Ethinyl estradiol Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz  Fesoterodine Toviaz  Flecainide  Flibanserin Cipralex, Lexapro  Cipralex, Lexapro  Cipralex, Lexapro  Cipralex, Lexapro  Cipralex, Lexapro  Cipralex, Lexapro  Addyi	Balversa		
Escitalopram Cipralex, Lexapro Cipralex, Lexapro	Erlotinib		Antineoplastic Agents
Cipralex, Lexapro	Tarceva		
Cipralex, Lexapro       Response to medication may be impacted by gene: CYP2C19         Your prescriber should initiate therapy with recommended starting dose and consider a slower adjustment schedule and lower maintenance dose.       Source: CPI         Esomeprazole       Proton-Pump Inhibitors (I         Nexium, Vimovo       Hormonal Contracepi         Alesse, Evra, Linessa, Lolo,       Marwelon, Nuvaring, Seasonale,         Seasonique, Yasmin, Yaz       Antimuscar         Fesoterodine       Antimuscar         Toviaz       Filecainide         Flibanserin       Endocrinology - Ot         Addyi       Toviaz	Escitalopram		Antidepressants - SSRI
Your prescriber should initiate therapy with recommended starting dose and consider a slower adjustment schedule and lower maintenance dose.       Source: CPI         Esomeprazole       Proton-Pump Inhibitors (I         Nexium, Vimovo       Hormonal Contracept         Ethinyl estradiol       Hormonal Contracept         Alesse, Evra, Linessa, Lolo,       Marvelon, Nuvaring, Seasonale,         Seasonique, Yasmin, Yaz       Antimuscar         Toviaz       Toviaz         Flecainide       Matierrhyth         Flibanserin       Concrinology - Ot         Addyi       Endocrinology - Ot	Cipralex, Lexapro		Despense to modication may be imported by series CVD2C10
consider a slower adjustment schedule and lower maintenance dose. Source: CPI Esomeprazole Proton-Pump Inhibitors (I Nexium, Vimovo Ethinyl estradiol Hormonal Contracept Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Antimuscar Toviaz Flecainide Flicbanserin Antiarrhyth Flecainide Endocrinology - Ot Addyi			Response to medication may be impacted by gene: CYP2C19
Source: CPI Esomeprazole Proton-Pump Inhibitors (I Nexium, Vimovo Ethinyl estradiol Hormonal Contracept Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Antimuscar Toviaz Flecainide Flecainide Flibanserin Contracept Addyi			
Esomeprazole Proton-Pump Inhibitors (I Nexium, Vimovo Ethinyl estradiol Hormonal Contracept Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Antimuscar Toviaz Flecainide Flibanserin Antiarrhyth Flecainide Endocrinology - Ot Addyi			Source: <u>CPIC - A</u>
Nexium, Vimovo Ethinyl estradiol Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Toviaz Flecainide Flecainide Flibanserin Antiarrhyth Flecainide Flibanserin Addyi			
Ethinyl estradiol Hormonal Contracept   Alesse, Evra, Linessa, Lolo,   Marvelon, Nuvaring, Seasonale,   Seasonique, Yasmin, Yaz   Fesoterodine   Toviaz   Flecainide   Flecainide   Flibanserin   Addyi	-		Proton-Pump Inhibitors (PPIs)
Alesse, Evra, Linessa, Lolo, Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Toviaz Flecainide Flecainide Flibanserin Addyi			
Marvelon, Nuvaring, Seasonale, Seasonique, Yasmin, Yaz Fesoterodine Toviaz Flecainide Flecainide Flibanserin Addyi	-		Hormonal Contraceptives
Toviaz       Flecainide     Antiarrhyth       Flecainide     Image: Comparison of the second secon	Marvelon, Nuvaring, Seasonale,		
Flecainide     Antiarrhyth       Flecainide     Endocrinology - Ot       Addyi     Time on time	Fesoterodine		Antimuscarinics
Flecainide Flibanserin Addyi	Toviaz		
Flibanserin Addyi	Flecainide		Antiarrhythmics
Addyi	Flecainide		
	Flibanserin		Endocrinology - Others
Fluorouracil Antineoplastic Ag	Addyi		
	Fluorouracil		Antineoplastic Agents
Efudex	Efudex		
Fluoxetine and Olanzapine Antidepressants - Ot	Fluoxetine and Olanzapine		Antidepressants - Others



# Symbyax

Flurbiprofen	Nonsteroidal Inflammatory Drugs (NSAIDs)
Flurbiprofen	
Fluvastatin	Statins - HMG-COA Reductase Inhibitors
Lescol	
Fluvoxamine	Antidepressants - SSRI
Luvox	

<b>Fosphenytoin</b> Cerebyx	Anticonvul	lsants
Galantamine	Cholinergic A	gents
Razadyne, Reminyl		
Gefitinib	Antineoplastic A	gents
Iressa		
Glimepiride	Antidiabetic A	gents
Amaryl	<u> </u>	
	Response to medication may be impacted by gene: G6PD	
	Medications in the "sulfonlyurea" class (including glimepiride) may increase you of a specific side effect in your blood (hemolytic anemia). Your prescriber should caution and consider the use of alternatives in a different class.	
	Source	e: <u>FDA</u>
Glyburide	Antidiabetic A	gents
Diabeta	U	
	Response to medication may be impacted by gene: G6PD	
	Medications in the "sulfonlyurea" class (including glimepiride) may increase your of a specific side effect in your blood (hemolytic anemia). Your prescriber should caution and consider the use of alternatives in a different class.	
	Source	e: <u>FDA</u>
Haloperidol	Psychotropics 1st Generation Antipsych	notics
Haldol		
Hydrocodone	Op	pioids
Dalmacol, Hycodan, Vicodin	Response to medication may be impacted by gene: CYP2D6	
	Response to medication may be impacted by gene. CTP 200	
	Your prescriber should consult standard manufacturer provided dosing specific your age or weight when prescribing this medication for you. If you don't respon this medication but you require an opioid, your prescriber should consider avoid specific medications (codeine and tramadol).	nd to
	Source:	: <u>CPIC</u>
Hydroxychloroquine	Antimal	arials
Plaquenil		
	Response to medication may be impacted by gene: G6PD	

This medication may cause you to experience a specific side effect in your blood (hemolysis). If you are prescribed this medication, you should be monitored for a specific medical condition called hemolytic anemia particularly if taken with other medications that can cause hemolysis as a side effect.

Source: FDA

# Nonsteroidal Inflammatory Drugs (NSAIDs)



Advil, Motrin

lloperidone		lop	eri	ido	ne
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Fanapt

Imipramine	Antidepressants - Tricycli
Tofranil	Response to medication may be impacted by gene: CYP2D6 & CYP2C19
	Your prescriber should consider a 25% reduction in the recommended starting dose.
	Source: <u>CPIC - /</u>
rinotecan	Antineoplastic Agent
Camptosar, Onivyde	
Isoflurane	General & Inhalational Anesthesi
Forane	
Isoniazid	Antibiotic
soniazid	Response to medication may be impacted by gene: NAT2
	You may be at an increased risk of developing toxic liver disease when treated with isoniazid regimens for tuberculosis. However, conflicting evidence has been reported
	Source: PharmGKB - 1
Lansoprazole	Proton-Pump Inhibitors (PPIs
Hp-PAC, Prevacid, Prevpac	Response to medication may be impacted by gene: CYP2C19
	Your prescriber should select the standard starting daily dose. If effective and being used long term, your prescriber should consider reducing your daily dose by half (50%).
	Source: <u>CPIC - /</u>
Lidocaine	Local Anesthetic
Xylocaine	Response to medication may be impacted by gene: G6PD
	You may be at an increased risk of experiencing a certain blood condition (methemoglobinemia) if you take this medication or other medications in the same family. If this or other local anesthetics are prescribed, you should be closely monitored for signs and symptoms of methemoglobinemia.

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# Lidocaine and Prilocaine

Oraqix

Local Anesthetics

Response to medication may be impacted by gene: G6PD

You may be at an increased risk of experiencing a certain blood condition (methemoglobinemia) if you take this medication or other medications in the same family. If this or other local anesthetics are prescribed, you should be closely monitored for signs and symptoms of methemoglobinemia.

Source: FDA

Lidocaine and Tetracaine	Local Anesthetics
Pliaglis	Response to medication may be impacted by gene: G6PD
	You may be at an increased risk of experiencing a specific side effect in your blood (methemoglobinemia) if you take this medication or other medications in the same class. If this or other local anesthetics are prescribed, it is recommended that close monitoring of signs and symptoms of methemoglobinemia occurs.
	Source: FDA
Lofexidine	Alpha2-Adrenergic Agonist
Lucemyra	
Lovastatin	Statins - HMG-COA Reductase Inhibitors
Altoprev, Mevacor	
Meloxicam	Nonsteroidal Inflammatory Drugs (NSAIDs)
Mobic, Mobicox	
Mepivacaine	Local Anesthetics
Carbocaine, Polocaine Dental	Response to medication may be impacted by gene: G6PD
	You may be at an increased risk of experiencing a specific side effect in your blood (methemoglobinemia) if you take this medication or other medications in the same class. If this or other local anesthetics are prescribed, it is recommended that close monitoring of signs and symptoms of methemoglobinemia occurs.



Methoxyflurane	General & Inhalational Anesthesia
Penthrox	
Methylene blue	Methemoglobinemia Agent/Antidote
Provayblue	Response to medication may be impacted by gene: G6PD
	You may be at an increased risk of experiencing certain blood conditions (severe hemolysis and severe anemia) if you take this medication. This medication has a strict warning against use in individuals with a G6PD deficiency.
	Source: FDA
Metoclopramide	Other
Gimoti, Reglan	
Metoprolol	Beta-Blockers
Lopresor	Deen anno ta ma diastian may bairana stad by san ay CVD2D(
	Response to medication may be impacted by gene: CYP2D6
	You may have decreased ability to process this medication (decreased metabolism). Your prescriber should use smaller dose increases and/or prescribe no more that 25% of the standard dose for heart rate reduction or 50% for symptomatic bradycardia.
	Source: PharmGKB - 2A
Mirabegron	Urinary Antispasmodic (Selective Beta 3-Adrenergic Agonists)
Myrbetriq	
Mirtazapine	Antidepressants - Others
Remeron	
Modafinil	Antidepressants - Others
Alertec, PROVIGIL	
Nebivolol	Beta-Blockers
Bystolic	
Nevirapine	Antiretrovirals - NNRT
Viramune	
Nilotinib	Antineoplastic Agents
Tasigna	
Nitrofurantoin	Antibiotics

### MacroBID

# Response to medication may be impacted by gene: G6PD

You are at risk of experiencing a specific side effect in your blood (hemolytic anemia). The process causing this side effect (hemolysis) stops when the medication is discontinued.

Source: FDA

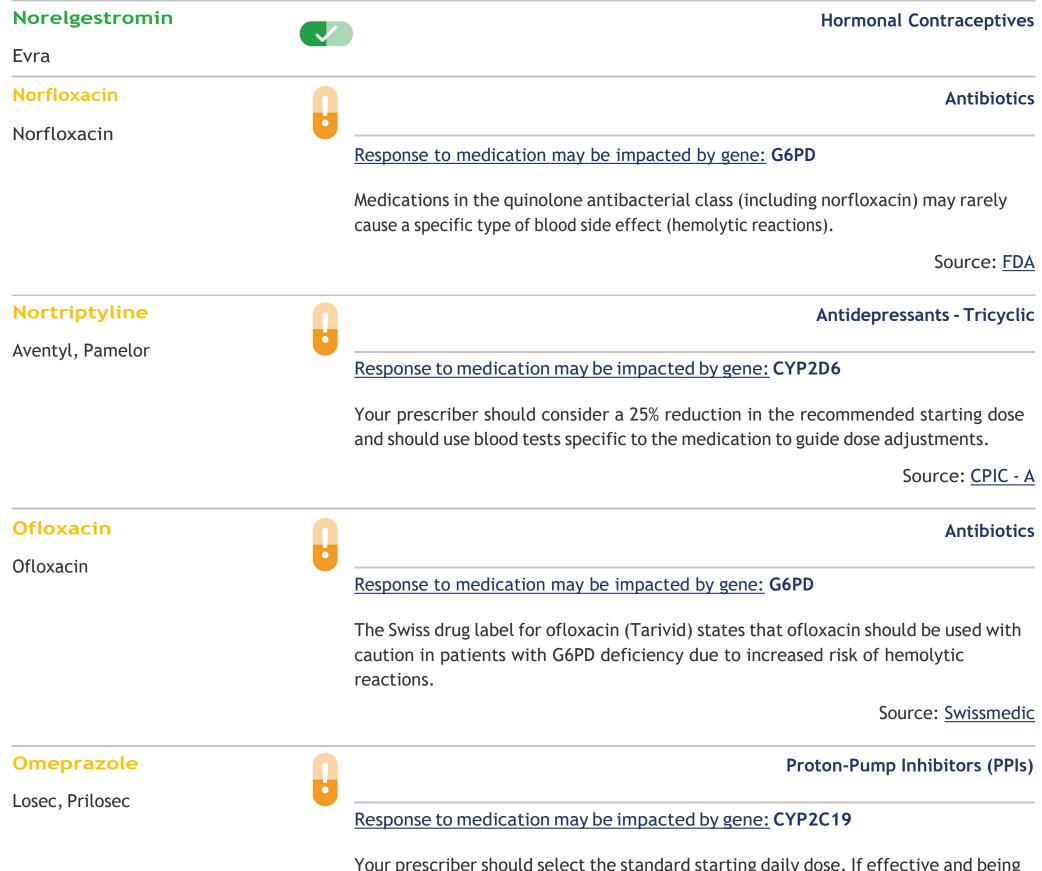
## Nitroglycerin

Nitro-Dur, Nitrolingual Pumpspray, Nitrostat

Response to medication may be impacted by gene: G6PD

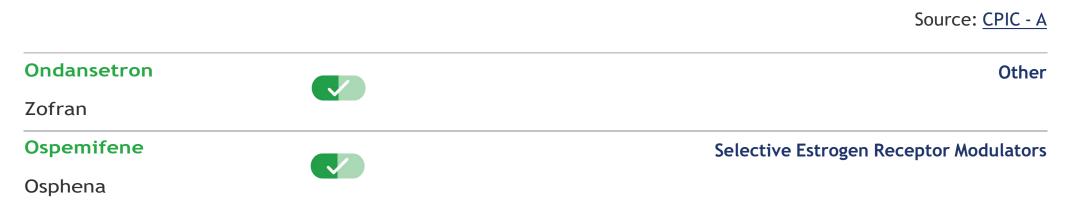
If you have a certain blood condition (anemic hypoxemia) due to your G6PD deficiency, your prescriber should treat your situation with caution when considering this medication.

Source: Swissmedic



Your prescriber should select the standard starting daily dose. If effective and being used long term, your prescriber should consider reducing your daily dose by half

(50%).



# OxyCodone OxyNeo, Oxycontin, Percocet,

Response to medication may be impacted by gene: CYP2D6

You may have decreased ability to process this medication (decreased metabolism).

Source: PharmGKB - 2A

Pantoprazole	Proton-Pump Inhibitors (PPIs)
Pantoloc, Protonix, Tecta	Response to medication may be impacted by gene: CYP2C19
	Your prescriber should select the standard starting daily dose. If effective and being used long term (>12 weeks) your prescriber should consider reducing your daily dose by 50% and monitor for continued effect. Source: <u>CPIC - A</u>
Paroxetine	Antidepressants - SSR
Brisdelle, Paxil, Pexeva	Response to medication may be impacted by gene: CYP2D6
	Your prescriber should consider a lower starting dose and slower titration schedule
	Source: <u>CPIC - /</u>
Pazopanib	Antineoplastic Agent
Votrient	
Peginterferon alfa-2a	Antiviral
Pegasys	Response to medication may be impacted by gene: IFNL3
	Peginterferon alfa-2a + ribavirin: You have approximately 30% chance of benefit after 48 weeks of treatment if taking this medication along with ribavirin. Peginterferon alfa-2a + ribavirin + protease inhibitor combinations: You have approximately 60% chance of benefit (after 24-48 weeks of treatment if taking this medication along with ribavirin and protease inhibitor combinations. Approximately 50% of individuals are eligible for shortened therapy regimens (24-28 weeks).
	Source: <u>CPIC - A</u>
Perphenazine	Psychotropics 1st Generation Antipsychotic
Perphenazine	
Phenytoin	Anticonvulsant

#### Pimozide

Dilantin

Orap

Targin

#### <u>Response to medication may be impacted by gene:</u> CYP2D6

You are at an increased risk of experiencing a higher concentration of medication in your body. If you are an adult, you should not be prescribed more than 80% of the maximum dose or 16 mg/day for adults and 0.08 mg/kg to a maximum of 3mg/day for children under 12.

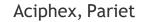
Source: DPWG

Piroxicam Feldene	Nonsteroidal Inflammatory Drugs (NSAIDs)
Pitolisant	H3 Receptor Antagonists
Wakix	
Pravastatin	Statins - HMG-COA Reductase Inhibitors
Pravachol	
Prilocaine	Local Anesthetics
Citanest, Emla	
	Response to medication may be impacted by gene: G6PD
	You may be at an increased risk of experiencing a certain blood condition (methemoglobinemia) if you take this medication or other medications in the same family. If this or other local anesthetics are prescribed, you should be closely monitored for signs and symptoms of methemoglobinemia.
	Source: FDA
Primaquine	Antimalarials
Primaquine	Response to medication may be impacted by gene: G6PD
	You should not be prescribed this medication due to the risk of a specific side effect in your blood (hemolytic anemia).
	Source: FDA
Propafenone	Antiarrhythmics
Rythmol	
Propranolol	Beta-Blockers
Hemangeol, Hemangiol, Inderal-LA	
Protriptyline	Antidepressants - Tricyclic
Protriptyline	
Quetiapine	Psychotropics 2nd Generation Antipsychotics
Seroquel	
Quinine	Antimalarials
Qualaquin	Response to medication may be impacted by gene: G6PD

If you are taking this medication for the treatment of malaria, you may experience a specific side effect in your blood (acute hemolytic anemia). Specific blood tests (hemoglobin and hematocrit) should be closely monitored during quinine treatment. Quinine should be stopped if you develop acute hemolytic anemia.

Source: DPWG

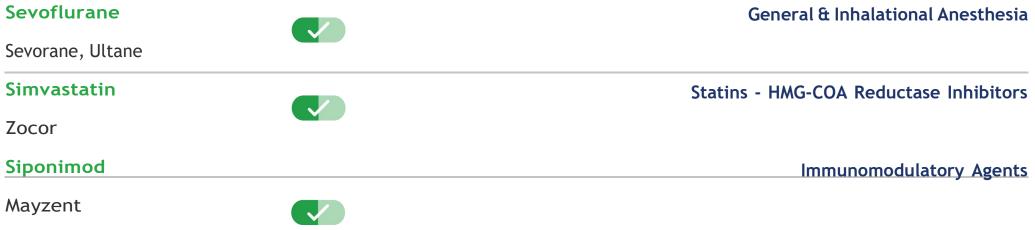
# Rabeprazole



Proton-Pump Inhibitors (PPIs)

Rasburicase	Uricolytic Agent/Enzymes
Elitek, Fasturtec	Response to medication may be impacted by gene: G6PD
	Your prescriber should not select this medication due to a high risk of a specific side effect in your blood (acute hemolytic anemia).
	Source: <u>CPIC - A</u>
Rifampin	Antibiotics
Rimactane, Rofact	· · · · · · · · · · · · · · · · · · ·
	Response to medication may be impacted by gene: NAT2
	You may be at increased risk of side effects (toxicity) and increased amounts of this medication in your body from a standard dose.
	Source: PharmGKB - 1E
Risperidone	Psychotropics 2nd Generation Antipsychotics
Perseris, Risperdal	
Ropivacaine	Local Anesthetics
Naropin	Response to medication may be impacted by gene: G6PD
	You may be at an increased risk of experiencing a specific side effect in your blood (methemoglobinemia) if you take this medication or other medications in the same class. If this or other local anesthetics are prescribed, it is recommended that close monitoring of signs and symptoms of methemoglobinemia occurs.
	Source: FDA
Rosuvastatin Crestor,	Statins - HMG-COA Reductase Inhibitors
Ezallor Sprinkle	
Salmeterol	Selective Beta 2-adrenergic Agonists (SABAs)
Advair, Serevent	
Sertraline	Antidepressants - SSR
Zoloft	Response to medication may be impacted by gene: CYP2C19 & CYP2B6
	Your prescriber should initiate therapy with the recommended starting dose and consider a slower dose adjustment schedule and lower maintenance dose.

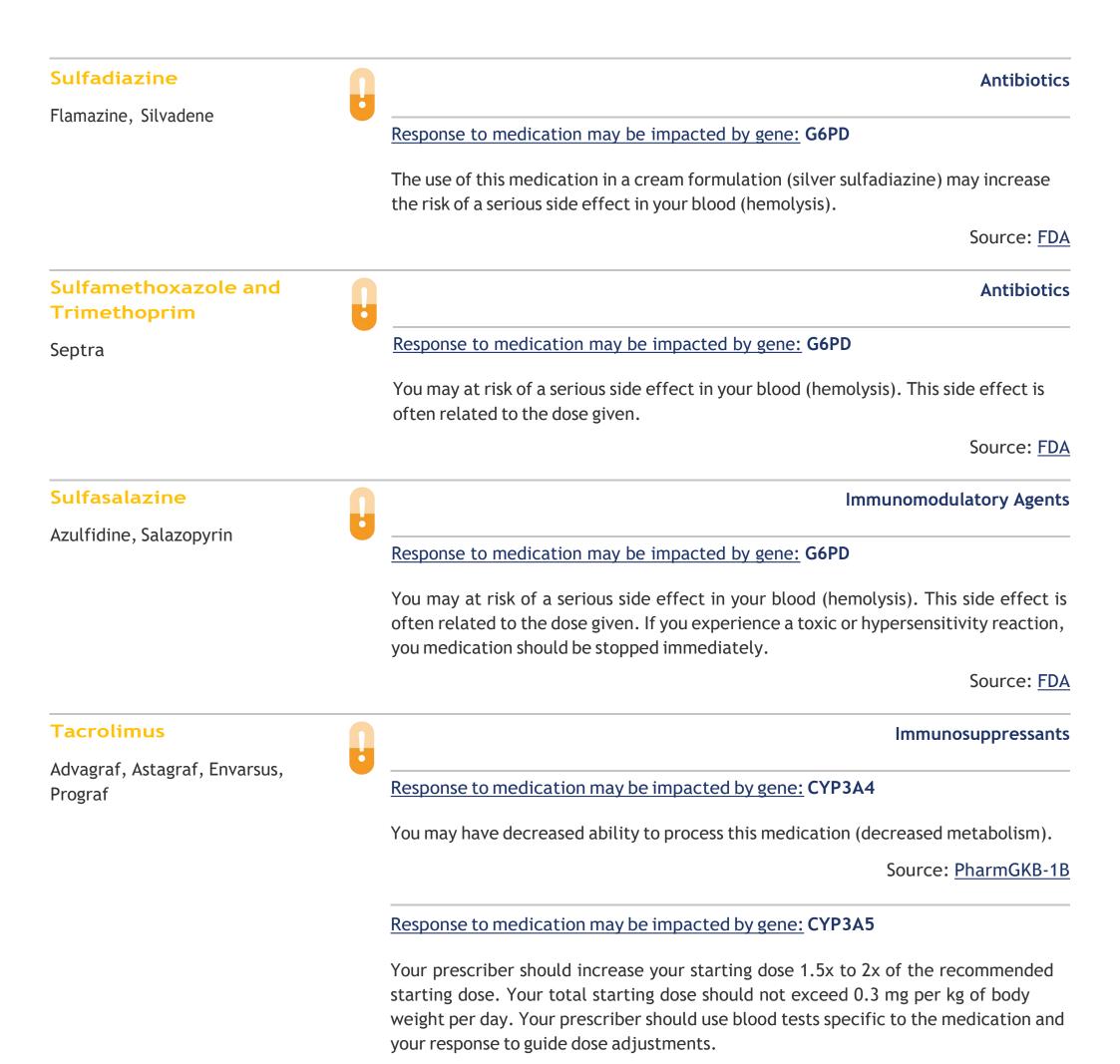
Source: <u>CPIC - A</u>



## Succinylcholine

Anectine, Quelicin





Tamoxifen	Antineoplastic Agents
Nolvadex-D, Soltamox	
Tamsulosin Flomax,	Selective Alfa-1-Adrenergic Blocking Agents
Jalyn Tetrabenazine	
Nitoman, Xenazine	Monoamine Depleting Agent

Thioguanine	Antineoplastic Agents
Lanvis	
Thioridazine	Psychotropics 1st Generation Antipsychotics
Thioridazine	
Tolterodine	Antimuscarinics
Detrol	
Tramadol	Opioids
Conzip, Durela, Qdolo, Ralivia, Seglentis, Tramacet, Tridural, Ultracet,	Response to medication may be impacted by gene: CYP2D6
Ultram, Zytram XL	You may require an increased dose of this medication, however some clinical guidelines do not agree.
	Source: <u>PharmGKB - 1B</u>
Trimipramine	Antidepressants - Tricyclic
Trimipramine	Response to medication may be impacted by gene: CYP2D6 & CYP2C19
	Your prescriber should consider a 25% reduction in the recommended starting dose.
	Source: <u>CPIC - A</u>
Venlafaxine	Antidepressants - SNRI
Effexor XR	
Vitamin C	Other
MoviPrep C	Response to medication may be impacted by gene: G6PD
	You may be at increased risk of a specific side effects in the blood (hemolytic reactions) when using MovIPrep, a vitamin C containing laxative product used for colon cleansing in preparation for a colonoscopy.
	Source: <u>FDA</u>
Voriconazole	Antifungals
Vfend	
Vortioxetine	Antidepressants - Others
Trintellix	
Warfarin	Antithrombotics

# Coumadin

# Response to medication may be impacted by gene: VKORC1

You may require a higher dose of Warfarin. Some studies do not support this association. The best way to estimate the anticipated stable dose of warfarin is to use the algorithms available at http://www.warfarindosing.org.

Source: PharmGKB-1B



Clopixol

Response to medication may be impacted by gene: CYP2D6

Your prescriber should prescribe 75% of the normal dose of this medication.

Source: DPWG

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v7

# Analysis of Your Gene Profile

This section lists the genes tested and variants detected that are known to impact responses to the medications included in this report.

Genes are listed in alphabetical order, starting with the genes where variants impacting drug response were detected. At the end of this section, you will find a list of genes tested where NO variants known to impact responses to the drugs included in this report were detected.

GENE	VARIANT DETECTED	FUNCTION
ADRB2	rs1042713 (GA)	rs1042713(A) Heterozygote
		Based on this genotype the patient may have abnormal ADRB2 function. Please consult a pharmacist for more information on how this ADRB2 genotype influences drug selection and dosing.
APOE	rs7412 (CC)	rs7412(C) Homozygote
		Based on this genotype the patient may have abnormal APOE function. Please consult a pharmacist for more information on how this APOE genotype influences drug selection and dosing.
СОМТ	rs4680 (AA)	rs4680(A) Homozygote
		Based on this genotype the patient may have abnormal COMT function. Please consult a pharmacist for more information on how this COMT genotype influences drug selection and dosing.
CYP2C19	rs12769205 (AG)	Intermediate Metabolizer
	rs4244285 (GA)	This result signifies that the patient is predicted to be an intermediate metabolizer of CYP2C19 substrates. This patient may be at risk for an adverse or poor response to medications that are metabolized by CYP2C19. To avoid an untoward drug response, dose adjustments or alternative therapeutic agents may be necessary for medications metabolized by CYP2C19. Please consult a pharmacist for more information about how CYP2C19 metabolic status influences drug selection and dosing.
CYP2D6	rs1065852 (AA)	Intermediate Metabolizer
		Based on the genotype result this patient is predicted to be an intermediate metabolizer of CYP2D6 substrates. This patient may be at risk for an adverse or poor response to medications that are metabolized by CYP2D6. To avoid an untoward drug response, dose adjustments may be necessary for medications metabolized by CYP2D6. Please consult a pharmacist for more information about how CYP2D6 metabolic status influences drug selection and dosing.

CYP3A4

#### Possible Intermediate Metabolizer

This patient may be an intermediate metabolizer of CYP3A4 substrates and possibly at risk for an adverse or poor response to medications that are metabolized by CYP3A4. To avoid an untoward drug response, dose adjustments or alternative therapeutic agents may be necessary for medications metabolized by CYP3A4. Please consult a pharmacist for more information about how CYP3A4 metabolic status influences drug selection and dosing.

CYP3A5	rs776746 (CC)	Poor Metabolizer		
		Based on the genotype result this patient is predicted to be a poor metabolizer of CYP3A5 substrates. This patient may be at a high risk for an adverse or poor response to medications that are metabolized by CYP3A5. To avoid an untoward drug response, dose adjustments or or alternative therapy may be necessary for medications metabolized by the CYP3A5. Please consult a pharmacist for more information about how CYP3A5 metabolic status influences drug selection and dosing.		
DRD2/ANKK1	rs1800497 (AA)	rs1800497(T) Homozygote		
		Based on this genotype the patient may have abnormal DRD2 function. Please consult a clinical pharmacist for more information on how the DRD2 genotype influences drug selection and dosing.		
G6PD	rs1050828 (TT)	G6PD*V68M Homozygote		
		This result signifies that the patient has two V68M G6PD deficient alleles. Based on this genotype the patient may have abnormal G6PD function. Please consult a clinical pharmacist for more information on how the G6PD genotype influences drug selection and dosing.		
HLA-A	rs1061235 (AT)	HLA-A*31:01:02 Heterozygote		
		A large number of HLA-A alleles have been identified and some of these alleles have been associated with reactions to a large number of different drugs. This result signifies that the patient is likely positive for the HLA- A*31:01:02 allele. Please consult a pharmacist for more information on how this genotype influences drug selection and dosing.		
HTR2A	rs7997012 (GG)	rs7997012(G) Homozygote		
		Based on this genotype the patient may have abnormal HTR2A function. Please consult a pharmacist for more information on how the HTR2A genotype influences drug selection and dosing.		
IFNL3	rs12979860 (CT)	rs12979860T heterozygote		
		This result signifies that the patient has one rs12979860T allele and one normal allele. Based on this genotype the patient may have a differential response to Hepatitis C or HIV treatment. Please consult a clinical pharmacist for more information on how the IFNL3 (IL28B) genotype influences drug selection and dosing.		
NAT2	rs1041983 (CC)	Slow Metabolizer		
	rs1801280 (CT)	This patient is predicted to be a slow metabolizer of NAT2 substrates and may be at high risk for an adverse or poor response to medications that		

are metabolized by NAT2. To avoid an untoward drug response, dose adjustments or or alternative therapy may be necessary for medications metabolized by the NAT2. Please consult a pharmacist for more information about how NAT2 metabolic status influences drug selection and dosing.

 SLC01B1
 rs11045879 (TC)
 rs11045879(C) Heterozygote

Based on this genotype the patient may have abnormal SLCO1B1 function. Please consult a pharmacist for more information on how the SLCO1B1 genotype influences drug selection and dosing.

TYMS	rs11280056 (DELDEL)		rs11280056(Del) Homozygote				
			Based on this genotype the patient may have abnormal TYMS function. Please consult a pharmacist for more information on how this TYMS genotype influences drug selection and dosing.				
VDR	rs2228570 (GG)		rs2228570(G) Homozygote				
		Please consult			genotype the patient may have abnormal VDR function. a pharmacist for more information on how this VDR nences drug selection and dosing.		
VKORC1	rs7294 (TT)		Abnormal enzymatic activity This result signifies that the patient two abnormal function VKORC1 alleles (*3/*3). The best way to estimate the anticipated stable dose of warfarin is to use the algorithms available at http://www.warfarindosing.org.				
No Gene Variants Identified							
ABCB1	ABCG2	BCHE		CACNA1S	COMT	CYP2B6	
CYP2C8	CYP2C9	CYP3A4		CYP3A5	CYP4F2	DPYD	
EGFR	F5	GSTP1		HLA-B-40-01-01	HLA-B-57-01	HLA-B-58-01	
HMGCR	HTR2A	MTHFR		NQO1	NUDT15	SLCO1B1	
TPMT	UGT1A1	XPC					

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