

CLS PGx Research Review

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Presented here are the results of the Coriell Life Sciences systematic review of available guidance and research literature. The CLS PGx Research Review is a general purpose research assistance service intended to provide users with relevant medical reference information related to identified gene variations and their drug associations. This research review reflects the professional opinions of the CLS research team, and are intended solely for general purpose research use and are not intended for use in clinical diagnosis or treatment. Independent review of the same evidence can be performed, with referenced sources documented at coriell.com/refs.

Patient: PGX3, 06
Date of Birth: Sep 09, 2000

Sample ID: 2310277006

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Genetic Research Summary Information

† Key: Indeterminant, Uncertain = No known diplotype or activity; Negative = wild type alleles; Positive = heterozygous or homozygous alleles; n/a = no gene information available.

Genetic Research Summary

Gene	Diplotype	Activity †
ABCG2	T T	Poor function
ADRA2A(c.-1252G>C)	G G	Negative
ANKK1	Uncertain Allele	n/a
ATM(C11orf65)	C A	Positive
COMT(Val158Met)	A A	Poor function
CYP2B6	*1 *9	Intermediate metabolizer
CYP2C19	*2 *3	Poor metabolizer
CYP2C9	*1 *5	Intermediate metabolizer
CYP2D6	Not Tested	n/a

Gene	Diplotype	Activity †
CYP3A4	*1A *22	Intermediate metabolizer
CYP3A5	*1 *1	Normal metabolizer
CYP4F2	*3 *3	n/a
DPYD	Uncertain Allele	n/a
Factor V Leiden	Heterozygous	See Thrombosis Research Summary
HLA-A*3101	Not Tested	n/a
HLA-B*1502	Not Tested	n/a
HLA-B*5701	Not Tested	n/a
HLA-B*5801	Not Tested	n/a
MTHFR (A1298C)	Heterozygous	See Thrombosis Research Summary
MTHFR (C677T)	Normal	See Thrombosis Research Summary
NUDT15	Uncertain Allele	n/a
OPRM1(A118G)	A G	Altered function

Gene	Diplotype	Activity †
Prothrombin (F2)	Normal	See Thrombosis Research Summary
SLCO1B1	*1 *1	Normal function

Gene	Diplotype	Activity †
TPMT	*1 *1	Normal metabolizer
UGT2B15	*2 *2	Poor function
VKORC1	*2 *2	High sensitivity to warfarin

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Thrombosis Research Summary

Tested Gene (Allele)	Diplotype Classification	Research Summary
Prothrombin (F2)	Normal	Variant alleles detected. It is important for individuals possessing this allelic variant to understand the clinical risks and the genetic implications of their result. Patients should be counseled by their physician or genetic counselor.
Factor V Leiden	Heterozygous	
MTHFR (A1298C)	Heterozygous	
MTHFR (C677T)	Normal	
		Individuals heterozygous for the Factor V Leiden variant have an approximately four to eight-fold increased risk of venous thrombosis as compared to individuals without the variant.

References

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- Lim MY, et al.; Thrombophilic risk of individuals with rare compound factor V Leiden and prothrombin G20210A polymorphisms: an international case series of 100 individuals. Eur J Haematol. 2016 Oct;97(4):353-60. doi: 10.1111/ejh.12738. Epub 2016 Feb 18. PMID: 26773706.
- Saemundsson Y, et al.; Homozygous factor V Leiden and double heterozygosity for factor V Leiden and prothrombin mutation. J Thromb Thrombolysis. 2013 Oct;36(3):324-31. doi: 10.1007/s11239-012-0824-5. PMID: 23054468.
- Stevens SM, et al.; Guidance for the evaluation and treatment of hereditary and acquired thrombophilia. J Thromb Thrombolysis. 2016 Jan;41(1):154-64. doi: 10.1007/s11239-015-1316-1. PMID: 26780744; PMCID: PMC4715840.





Medication Research Summary

Addiction			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Alpha-2-adrenergic agonists			
Analgesics, Opioid		Buprenorphine Methadone (CYP2B6)	





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Cardiology









Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Anti-angina medication			
Antiarrhythmics			
Anticoagulants		Acenocoumarol Warfarin (CYP2C9, CYP4F2, VKORC1) Warfarin (CYP2C9, VKORC1)	
Antiplatelet Agents	Prasugrel	Ticagrelor	Clopidogrel
Beta Blockers			
Statins	Atorvastatin (SLCO1B1) Fluvastatin (SLCO1B1) Lovastatin (SLCO1B1) Pitavastatin (SLCO1B1) Pravastatin (SLCO1B1) Rosuvastatin (SLCO1B1) Simvastatin	Atorvastatin Fluvastatin (CYP2C9) Rosuvastatin (ABCG2)	





Endocrinology





Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Biguanides		Metformin	
Dipeptidyl peptidase-4 (DPP-4) inhibitor		Saxagliptin	
Sulfonylurea		Gliclazide Glimepiride Glyburide Tolbutamide	





Gastroenterology			
Therapeutic Class	Standard Precautions	Caution / Info	Change Indicated
Antiemetics			
Prokinetic agents			
Proton Pump Inhibitors (PPIs)		Dexlansoprazole Esomeprazole Lansoprazole Omeprazole Pantoprazole Rabeprazole	
Gout			
Therapeutic Class	Standard Precautions	Caution / Info	Change Indicated
Xanthine Oxidase Inhibitor		Allopurinol	
Immunology			
Therapeutic Class	Standard Precautions	Caution / Info	Change Indicated
Cholinergic Agonists			
Immunosuppressants		Cyclosporine Sirolimus Tacrolimus	
Purine antagonists			
Infectious Disease			
Therapeutic Class	Standard Precautions	Caution / Info	Change Indicated
Antifungals			Ketoconazole Voriconazole

Infectious Disease			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Non-nucleoside reverse transcriptase inhibitors		Efavirenz Nevirapine	
Nucleoside reverse transcriptase inhibitors			
Neurology			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Anticonvulsants		Brivaracetam Clobazam Phenytoin	
Benzodiazepines		Alprazolam Clonazepam Diazepam Lorazepam Oxazepam	
Central Monoamine-Depleting Agents			
Central Nervous System Agents			
Cholinesterase Inhibitors			
Smoking Cessation			
Oncology			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Antiestrogens			

Oncology			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Antimetabolites			
EGFR Inhibitors			
Platinum-containing compounds	Cisplatin		
Purine analogs	Thioguanine		
Purine antagonists			
Xanthine Oxidase Inhibitor		Allopurinol	
Pain			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Analgesics, Opioid	Oxycodone (CYP3A5)	Alfentanil Buprenorphine Fentanyl Fentanyl (OPRM1) Hydromorphone Methadone (CYP2B6) Morphine Oxycodone (CYP3A4) Sufentanil	
Atypical antipsychotics			
Muscle Relaxants		Carisoprodol	
Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)		Celecoxib Diclofenac Flurbiprofen Ibuprofen Lornoxicam Meloxicam	Piroxicam

Pain			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Selective Serotonin Reuptake Inhibitors (SSRIs)			
Serotonin and Norepinephrine Reuptake Inhibitors (SSNRI)			
Serotonin Receptor Antagonists and Reuptake Inhibitors (SARIs)		Trazodone	
Skeletal muscle relaxant			
Tetracyclic antidepressants			
Tricyclic antidepressants			Amitriptyline (CYP2C19) Clomipramine (CYP2C19) Doxepin (CYP2C19) Trimipramine (CYP2C19)

Psychiatry			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
Alpha-2-adrenergic agonists	Clonidine	Guanfacine	
Anxiolytics		Buspirone	
Atypical antipsychotics		Quetiapine	
CNS Stimulants	Methylphenidate	Amphetamine	

Psychiatry			
Therapeutic Class	 Standard Precautions	  Caution / Info	 Change Indicated
	(ADRA2A)	Dexmethylphenidate Dextroamphetamine Lisdexamfetamine Methylphenidate (COMT)	
H3 receptor antagonist			
Hypnotics		Eszopiclone	
Monoamine Oxidase Inhibitors		Moclobemide	
Selective Serotonin Reuptake Inhibitors (SSRIs)			Citalopram Escitalopram
Serotonin and Norepinephrine Reuptake Inhibitors (SSNRI)			
Serotonin Receptor Antagonists and Reuptake Inhibitors (SARIs)		Trazodone	
Tetracyclic antidepressants			
Tricyclic antidepressants			Amitriptyline (CYP2C19) Clomipramine (CYP2C19) Doxepin (CYP2C19) Trimipramine (CYP2C19)
Typical antipsychotics			

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Reproductive

Therapeutic Class

✓ Standard Precautions

⚠️ ⓘ Caution / Info

✖️ Change Indicated




Contraceptives



Estrogen-containing oral contraceptives

SAMPLE

Legend

Research Summary







-  Typical response is expected
-  Consider alternative therapy
-  Change Indicated















-  Additional information available
-  Response is uncertain















Evidence Level









-  Strong
-  Moderate
-  Emerging












Medication Research Details (by therapeutic class)

Drug	Finding	Research Summary	Concern	Evidence
Adrenergic alpha-1 Receptor Antagonists				
Tamsulosin (Flomax)	 CYP2D6: Not Tested	No recommendation for Tamsulosin is available due to absent laboratory assay results.		
Alpha-2-adrenergic agonists				
Clonidine (Clonidine, Kapvay)	 ADRA2A(c.-1252G>C): Two wild-type alleles.	Individuals with wild type alleles are expected to show typical response. No additional therapeutic recommendations.		
Guanfacine (Tenex, Intuniv)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose.	ADR	
Lofexidine (Kai Er Ding, Lucemyra, Britlofex)	 CYP2D6: Not Tested	No recommendation for Lofexidine is available due to absent laboratory assay results.		

Drug	Finding	Research Summary	Concern	Evidence
Analgesics, Opioid				
Alfentanil (Rapifen, Alfenta)	 OPRM1(A118G): Altered function. One normal function allele and one altered function allele.	Individuals with altered function of this gene frequently present with increased risk of pharmacotherapy failure. Be alert to lack of efficacy; monitor the patient's response to guide dosing.	Efficacy	
Buprenorphine (Butrans, Buprenex)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Codeine	 CYP2D6: Not Tested	No recommendation for Codeine is available due to absent laboratory assay results.		
Fentanyl (Duragesic, Sublimaze)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Fentanyl (OPRM1) (Duragesic, Sublimaze)	 OPRM1(A118G): Altered function. One normal function allele and one altered function allele.	Individuals with altered function of this gene may present with increased risk of pharmacotherapy failure. Be alert to lack of efficacy; consider alternative medication.	Efficacy	
Hydrocodone	 CYP2D6: Not Tested	No recommendation for Hydrocodone is available due to absent laboratory assay results.		
Hydromorphone (Dilaudid)	 OPRM1(A118G): Altered function. One normal function allele and one altered function allele.	Individuals with altered function of this gene may present with increased risk of pharmacotherapy failure. Consider increasing the dose; monitor the patient's response to guide dosing.	Efficacy	
Methadone (CYP2B6) (Dolophine, Methadose)	 CYP2B6: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication frequently present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions, or consider alternative medication.	ADR	

Drug	Finding	Research Summary	Concern	Evidence
Morphine (MS-IR)	 OPRM1(A118G): Altered function. One normal function allele and one altered function allele.	Individuals with altered function of this gene may present with increased risk of pharmacotherapy failure. Consider increasing the dose; monitor the patient's response to guide dosing.	Efficacy	
Oliceridine (Olinvyk)	 CYP2D6: Not Tested	No recommendation for Oliceridine is available due to absent laboratory assay results.		
Oxycodone (Oxycontin)	 CYP2D6: Not Tested	No recommendation for Oxycodone is available due to absent laboratory assay results.		
Oxycodone (CYP3A4) (Oxycontin)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with lower plasma concentrations of the active medication, thus an increased risk of pharmacotherapy failure. Be alert to lack of efficacy; monitor the patient's response to guide dosing.	Efficacy	
Oxycodone (CYP3A5) (Oxycontin)	 CYP3A5: Normal metabolizer. Two normal function alleles.	Normal metabolizers of this medication are expected to show typical response. No additional therapeutic recommendations.		
Sufentanil (Sufenta)	 OPRM1(A118G): Altered function. One normal function allele and one altered function allele.	Individuals with altered function of this gene frequently present with increased risk of pharmacotherapy failure. Consider increasing the dose; monitor the patient's response to guide dosing.	Efficacy	
Tramadol (Ultracet, Ultram)	 CYP2D6: Not Tested	No recommendation for Tramadol is available due to absent laboratory assay results.		
Anti-angina medication				
Ranolazine (Ranexa)	 CYP2D6: Not Tested	No recommendation for Ranolazine is available due to absent laboratory assay results.		
Antiarrhythmics				
Flecainide (Tambacor)	 CYP2D6: Not Tested	No recommendation for Flecainide is available due to absent laboratory assay results.		
Propafenone (Rythmol)	 CYP2D6: Not Tested	No recommendation for Propafenone is available due to absent laboratory assay results.		









Drug	Finding	Research Summary	Concern	Evidence
Anticholinergic Agents				
Fesoterodine (Toviaz)	 CYP2D6: Not Tested	No recommendation for Fesoterodine is available due to absent laboratory assay results.		
Tolterodine (Detrol)	 CYP2D6: Not Tested	No recommendation for Tolterodine is available due to absent laboratory assay results.		
Anticoagulants				
Acenocoumarol (Sintrom, Acitrom)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication frequently present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Warfarin (CYP2C9, CYP4F2, VKORC1) (Coumadin)	 Multigenic: CYP2C9, VKORC1, CYP4F2: Intermediate metabolizer. One normal function allele and one decreased function allele.; Likely decreased function. Two altered function alleles.	Individuals with this combination of alleles may benefit from a lower than standard therapeutic dose of warfarin. Consider a regimen of 2.1-4 mg/day (15-28 mg/week).	ADR & Efficacy	
Warfarin (CYP2C9, VKORC1) (Coumadin)	 Multigenic: VKORC1, CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Individuals with this combination of alleles may benefit from a decreased dose of Warfarin. Consider a therapeutic dose of 0.5-2 mg/day.	ADR & Efficacy	











Drug	Finding	Research Summary	Concern	Evidence
Anticonvulsants				
Brivaracetam (Briviact, Nubriveo, Brivajoy)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose.	ADR	
Carbamazepine (Tegretol)	 HLA-B*1502: Not Tested	No recommendation for Carbamazepine is available due to absent laboratory assay results.		
Carbamazepine (HLA-A*3101) (Tegretol)	 HLA-A*3101: Not Tested	No recommendation for Carbamazepine (HLA-A*3101) is available due to absent laboratory assay results.		
Clobazam (Onfi)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Fosphenytoin (HLA-B*1502) (Cerebyx)	 HLA-B*1502: Not Tested	No recommendation for Fosphenytoin (HLA-B*1502) is available due to absent laboratory assay results.		
Oxcarbazepine (Trileptal)	 HLA-B*1502: Not Tested	No recommendation for Oxcarbazepine is available due to absent laboratory assay results.		
Phenytoin (Dilantin)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Phenytoin (HLA-B*1502) (Dilantin)	 HLA-B*1502: Not Tested	No recommendation for Phenytoin (HLA-B*1502) is available due to absent laboratory assay results.		












Drug	Finding	Research Summary	Concern	Evidence
Antiemetics				
Meclizine (Bonine, Antivert)	CYP2D6: Not Tested	No recommendation for Meclizine is available due to absent laboratory assay results.		
Ondansetron (Zofran)	CYP2D6: Not Tested	No recommendation for Ondansetron is available due to absent laboratory assay results.		
Tropisetron (Navoban, Setrovel)	CYP2D6: Not Tested	No recommendation for Tropisetron is available due to absent laboratory assay results.		
Antiestrogens				
Tamoxifen (Soltamox, Nolvadex)	CYP2D6: Not Tested	No recommendation for Tamoxifen is available due to absent laboratory assay results.		
Antifungals				
Flucytosine (Ancobon, Cytoflu, Ancotil)	DPYD: Uncertain Allele	No recommendation for Flucytosine is available for this combination of variants/alleles.		
Ketoconazole (Nizoral)	CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication frequently present with higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Voriconazole (Vfend)	CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Antimetabolites				
Capecitabine (Xeloda, Xitabin, Kapetral)	DPYD: Uncertain Allele	No recommendation for Capecitabine is available for this combination of variants/alleles.		
Fluorouracil (Efudex, Adrucil, Carac, Efudix)	DPYD: Uncertain Allele	No recommendation for Fluorouracil is available for this combination of variants/alleles.		
Tegafur (Teysuno)	DPYD: Uncertain Allele	No recommendation for Tegafur is available for this combination of variants/alleles.		

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Drug	Finding	Research Summary	Concern	Evidence
Antiplatelet Agents				
Clopidogrel (Plavix)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably lower plasma concentrations of the active medication, thus a significantly increased risk of pharmacotherapy failure. This medication should be avoided.	Efficacy	
Prasugrel (Effient)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Typical response expected. No additional therapeutic recommendations.		
Ticagrelor (Brilinta)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Anxiolytics				
Buspirone (Buspar)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	












Drug	Finding	Research Summary	Concern	Evidence
Atypical antipsychotics				
Aripiprazole (Abilify)	 CYP2D6: Not Tested	No recommendation for Aripiprazole is available due to absent laboratory assay results.		
Aripiprazole Lauroxil (Aristada Initio, Aristada)	 CYP2D6: Not Tested	No recommendation for Aripiprazole Lauroxil is available due to absent laboratory assay results.		
Brexpiprazole (Rexulti)	 CYP2D6: Not Tested	No recommendation for Brexpiprazole is available due to absent laboratory assay results.		
Clozapine (Clozaril, Leponex, Versacloz)	 CYP2D6: Not Tested	No recommendation for Clozapine is available due to absent laboratory assay results.		
Iloperidone (Fanapt)	 CYP2D6: Not Tested	No recommendation for Iloperidone is available due to absent laboratory assay results.		
Olanzapine (Zalasta, Zyprexa)	 CYP2D6: Not Tested	No recommendation for Olanzapine is available due to absent laboratory assay results.		
Quetiapine (Seroquel)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Risperidone (Risperdal)	 CYP2D6: Not Tested	No recommendation for Risperidone is available due to absent laboratory assay results.		
Sertindole (Serdolect, Serlect)	 CYP2D6: Not Tested	No recommendation for Sertindole is available due to absent laboratory assay results.		





Drug	Finding	Research Summary	Concern	Evidence
Benzodiazepines				
Alprazolam (Xanax, Niravam)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Clonazepam (Klonopin)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Diazepam (Valium)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Lorazepam (Ativan)	 UGT2B15: Poor function. Two decreased function alleles.	Individuals with poor function of this gene may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Oxazepam (Aleepam)	 UGT2B15: Poor function. Two decreased function alleles.	Individuals with poor function of this gene may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Beta-3 Adrenergic Agonists				
Mirabegron (Myrbetriq)	 CYP2D6: Not Tested	No recommendation for Mirabegron is available due to absent laboratory assay results.		

Drug	Finding	Research Summary	Concern	Evidence
Beta Blockers				
Carvedilol (Coreg)	 CYP2D6: Not Tested	No recommendation for Carvedilol is available due to absent laboratory assay results.		
Metoprolol (Lopressor)	 CYP2D6: Not Tested	No recommendation for Metoprolol is available due to absent laboratory assay results.		
Nebivolol (Bystolic)	 CYP2D6: Not Tested	No recommendation for Nebivolol is available due to absent laboratory assay results.		
Propranolol (Inderal)	 CYP2D6: Not Tested	No recommendation for Propranolol is available due to absent laboratory assay results.		
Timolol (Blocadren)	 CYP2D6: Not Tested	No recommendation for Timolol is available due to absent laboratory assay results.		
Biguanides				
Metformin (Glucophage)	 ATM(C11orf65): One wild type allele and one variant allele.	Individuals with these heterozygous alleles frequently present with increased medication efficacy. No additional therapeutic recommendations.	Efficacy	
Central Monoamine-Depleting Agents				
Tetrabenazine (Xenazine)	 CYP2D6: Not Tested	No recommendation for Tetrabenazine is available due to absent laboratory assay results.		
Central Nervous System Agents				
Dextromethorphan-Quinidine (Nuedexta)	 CYP2D6: Not Tested	No recommendation for Dextromethorphan-Quinidine is available due to absent laboratory assay results.		
Cholinergic Agonists				
Cevimeline (Evoxac)	 CYP2D6: Not Tested	No recommendation for Cevimeline is available due to absent laboratory assay results.		













Drug	Finding	Research Summary	Concern	Evidence
Cholinesterase Inhibitors				
Donepezil (Aricept)	 CYP2D6: Not Tested	No recommendation for Donepezil is available due to absent laboratory assay results.		
Galantamine (Razadyne, Razadyne ER, Nivalin, Lycoremine, Reminyl)	 CYP2D6: Not Tested	No recommendation for Galantamine is available due to absent laboratory assay results.		
CNS Stimulants				
Amphetamine (Adzenys, Evekeo)	 COMT(Val158Met): Poor function. Two decreased function alleles.	Individuals with poor function of this gene may present with increased risk of pharmacotherapy failure. Be alert to lack of efficacy.	Efficacy	
Amphetamine (CYP2D6) (Adzenys, Evekeo)	 CYP2D6: Not Tested	No recommendation for Amphetamine (CYP2D6) is available due to absent laboratory assay results.		
Dexmethylphenidate (Focalin)	 COMT(Val158Met): Poor function. Two decreased function alleles.	Individuals with poor function of this gene may present with increased risk of pharmacotherapy failure. Be alert to lack of efficacy.	Efficacy	
Dextroamphetamine (Zenedi, Dexedrine)	 COMT(Val158Met): Poor function. Two decreased function alleles.	Individuals with poor function of this gene may present with increased risk of pharmacotherapy failure. Be alert to lack of efficacy.	Efficacy	
Lisdexamfetamine (Vyvanse)	 COMT(Val158Met): Poor function. Two decreased function alleles.	Individuals with poor function of this gene may present with increased risk of pharmacotherapy failure. Be alert to lack of efficacy.	Efficacy	
Methylphenidate (ADRA2A) (Concerta, Metadate, Ritalin, Ritalin LA, Quillivant, Daytrana, Methylin)	 ADRA2A(c.-125G>C): Two wild-type alleles.	Individuals with wild type alleles are expected to show typical response. No additional therapeutic recommendations.		
Methylphenidate (COMT) (Concerta, Metadate, Ritalin, Ritalin LA, Quillivant, Daytrana, Methylin)	 COMT(Val158Met): Poor function. Two decreased function alleles.	Individuals with poor function of this gene may present with increased risk of pharmacotherapy failure. Be alert to lack of efficacy.	Efficacy	







Drug	Finding	Research Summary	Concern	Evidence
Contraceptives				
Estrogen-containing oral contraceptives	 F5: One wild type allele and one variant allele.	Individuals with these homozygous variant alleles frequently present with significantly increased risk of side effects. This medication should be avoided.	ADR	
Dipeptidyl peptidase-4 (DPP-4) inhibitor				
Saxagliptin (Onglyza)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
EGFR Inhibitors				
Gefitinib (Iressa)	 CYP2D6: Not Tested	No recommendation for Gefitinib is available due to absent laboratory assay results.		
Enzyme Inhibitors				
Eliglustat (Cerdelga)	 CYP2D6: Not Tested	No recommendation for Eliglustat is available due to absent laboratory assay results.		
H3 receptor antagonist				
Pitolisant (Wakix)	 CYP2D6: Not Tested	No recommendation for Pitolisant is available due to absent laboratory assay results.		
Hypnotics				
Eszopiclone (Lunesta)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	













Drug	Finding	Research Summary	Concern	Evidence
Immunosuppressants				
Azathioprine (NUDT15) (Imuran)	 NUDT15: Uncertain Allele	No recommendation for Azathioprine (NUDT15) is available for this combination of variants/alleles.		
Cyclosporine (Gengraf, Neoral)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Sirolimus (Rapamune)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Tacrolimus (Prograf, Hecoria)	 CYP3A5: Normal metabolizer. Two normal function alleles.	Normal metabolizers of this medication may present with lower plasma concentrations of the active medication, thus an increased risk of pharmacotherapy failure. Consider increasing the dose; monitor the patient's response to guide dosing.	Efficacy	
Monoamine Oxidase Inhibitors				
Moclobemide (Manerix, Aurorix, Amira, Clobemix, Depnil)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Muscle Relaxants				
Carisoprodol (Soma)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions, or consider alternative medication.	ADR	






Drug	Finding	Research Summary	Concern	Evidence
Non-nucleoside reverse transcriptase inhibitors				
Efavirenz (Sustiva)	 CYP2B6: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication frequently present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Nevirapine (Viramune)	 CYP2B6: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	

SAMPLE













Drug	Finding	Research Summary	Concern	Evidence
Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)				
Celecoxib (Celebrex)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Diclofenac (Cataflam)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Flurbiprofen (Ocufen)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication frequently present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Ibuprofen (Motrin, Advil)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication frequently present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Lornoxicam (Xefo)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication frequently present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Meloxicam (Mobic)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	





Drug	Finding	Research Summary	Concern	Evidence
Piroxicam (Feldene)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication frequently present with higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Nucleoside reverse transcriptase inhibitors				
Abacavir (Ziagen)	 HLA-B*5701: Not Tested	No recommendation for Abacavir is available due to absent laboratory assay results.		
Platinum-containing compounds				
Cisplatin (Platinol)	 TPMT: *1 *1	Normal metabolizers of this medication are expected to show typical response. No additional therapeutic recommendations.		
Prokinetic agents				
Metoclopramide (Primperan, Reglan)	 CYP2D6: Not Tested	No recommendation for Metoclopramide is available due to absent laboratory assay results.		

Drug	Finding	Research Summary	Concern	Evidence
Proton Pump Inhibitors (PPIs)				
Dexlansoprazole (Dexilant, Kapidex)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Esomeprazole (Nexium)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Lansoprazole (Prevacid)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Omeprazole (Prilosec, Zegerid)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Pantoprazole (Protonix)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	
Rabeprazole (Aciphex)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose; monitor the patient's response to guide dosing.	ADR	



















Drug	Finding	Research Summary	Concern	Evidence
Purine analogs				
Thioguanine (6-TG, Tabloid, Lanvis)	 TPMT: *1 *1	Normal metabolizers of this medication are expected to show typical response. No additional therapeutic recommendations.		
Thioguanine (NUDT15) (6-TG, Tabloid, Lanvis)	 NUDT15: Uncertain Allele	No recommendation for Thioguanine (NUDT15) is available for this combination of variants/alleles.		
Purine antagonists				
Mercaptopurine (NUDT15) (Purinethol)	 NUDT15: Uncertain Allele	No recommendation for Mercaptopurine (NUDT15) is available for this combination of variants/alleles.		
Thioguanine (TPMT, NUDT15) (6-TG, Tabloid, Lanvis)	 Multigenic TPMT: *1 *1 NUDT15: Uncertain Allele	No recommendation for Thioguanine (TPMT, NUDT15) is available for this combination of variants/alleles.		












SAMPLE














Drug	Finding	Research Summary	Concern	Evidence
Selective Serotonin Reuptake Inhibitors (SSRIs)				
Citalopram (Celexa)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Dapoxetine (Priligy, EJ-30)	 CYP2D6: Not Tested	No recommendation for Dapoxetine is available due to absent laboratory assay results.		
Escitalopram (Lexapro)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication may present with notably higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Fluoxetine (Prozac)	 CYP2D6: Not Tested	No recommendation for Fluoxetine is available due to absent laboratory assay results.		
Fluvoxamine (Luvox)	 CYP2D6: Not Tested	No recommendation for Fluvoxamine is available due to absent laboratory assay results.		
Paroxetine (Paxil)	 CYP2D6: Not Tested	No recommendation for Paroxetine is available due to absent laboratory assay results.		
Vortioxetine (Trintellix)	 CYP2D6: Not Tested	No recommendation for Vortioxetine is available due to absent laboratory assay results.		
Serotonin and Norepinephrine Reuptake Inhibitors (SSNRI)				
Atomoxetine (Strattera)	 CYP2D6: Not Tested	No recommendation for Atomoxetine is available due to absent laboratory assay results.		
Duloxetine (Cymbalta)	 CYP2D6: Not Tested	No recommendation for Duloxetine is available due to absent laboratory assay results.		
Venlafaxine (Effexor)	 CYP2D6: Not Tested	No recommendation for Venlafaxine is available due to absent laboratory assay results.		












Drug	Finding	Research Summary	Concern	Evidence
Serotonin Receptor Antagonists and Reuptake Inhibitors (SARIs)				
Trazodone (Oleptro, Desyrel)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Skeletal muscle relaxant				
Tolperisone (Mydocalm)	 CYP2D6: Not Tested	No recommendation for Tolperisone is available due to absent laboratory assay results.		
Smoking Cessation				
Bupropion (Wellbutrin)	 ANKK1: Uncertain Allele	No recommendation for Bupropion is available for this combination of variants/alleles.		






SAMPLE

Drug	Finding	Research Summary	Concern	Evidence
Statins				
Atorvastatin (Lipitor, Caduet)	 CYP3A4: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Atorvastatin (SLCO1B1) (Lipitor, Caduet)	 SLCO1B1: Normal function. Two normal function alleles.	Individuals with normal function of this gene are expected to show typical response. No additional therapeutic recommendations.		
Fluvastatin (CYP2C9) (Lescol)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Fluvastatin (SLCO1B1) (Lescol)	 SLCO1B1: Normal function. Two normal function alleles.	Individuals with normal function of this gene are expected to show typical response. No additional therapeutic recommendations.		
Lovastatin (SLCO1B1) (Mevacor, Altocor)	 SLCO1B1: Normal function. Two normal function alleles.	Individuals with normal function of this gene are expected to show typical response. No additional therapeutic recommendations.		
Pitavastatin (SLCO1B1) (Livazo, Livalo)	 SLCO1B1: Normal function. Two normal function alleles.	Individuals with normal function of this gene are expected to show typical response. No additional therapeutic recommendations.		
Pravastatin (SLCO1B1) (Selektine, Pravachol)	 SLCO1B1: Normal function. Two normal function alleles.	Individuals with normal function of this gene are expected to show typical response. No additional therapeutic recommendations.		
Rosuvastatin (ABCG2) (Rosulip, Crestor, Zuvamor)	 ABCG2: Poor function. Two decreased function alleles.	Individuals with poor function of this gene frequently present with increased risk of side effects. Consider reducing the dose, or using an alternative medication.	ADR	
Rosuvastatin (SLCO1B1) (Rosulip, Crestor, Zuvamor)	 SLCO1B1: Normal function. Two normal function alleles.	Individuals with normal function of this gene are expected to show typical response. No additional therapeutic recommendations.		

Drug	Finding	Research Summary	Concern	Evidence
Simvastatin (Zocor)	 SLCO1B1: Normal function. Two normal function alleles.	Individuals with normal function of this gene are expected to show typical response. No additional therapeutic recommendations.		
Sulfonylurea				
Gliclazide (Diamicron, Diaprel, Azukon)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, frequently present with increased medication efficacy. No additional therapeutic recommendations.	Efficacy	
Glimepiride (Amaryl)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, frequently present with increased medication efficacy. No additional therapeutic recommendations.	Efficacy	
Glyburide (Glibenclamide)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Tolbutamide (Orinase)	 CYP2C9: Intermediate metabolizer. One normal function allele and one decreased function allele.	Intermediate metabolizers of this medication may present with higher plasma concentrations of the active medication, thus an increased risk of side effects. Be alert to adverse reactions; monitor the patient's response to guide dosing.	ADR	
Tetracyclic antidepressants				
Mirtazapine (Remeron)	 CYP2D6: Not Tested	No recommendation for Mirtazapine is available due to absent laboratory assay results.		

Drug	Finding	Research Summary	Concern	Evidence
Tricyclic antidepressants				
Amitriptyline (CYP2C19) (Elavil)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Amitriptyline (CYP2C19, CYP2D6) (Elavil)	 Multigenic: CYP2D6, CYP2C19: Poor metabolizer. Two little or no function alleles.	No recommendation for Amitriptyline (CYP2C19, CYP2D6) is available due to absent laboratory assay results.		
Amitriptyline (CYP2D6) (Elavil)	 CYP2D6: Not Tested	No recommendation for Amitriptyline (CYP2D6) is available due to absent laboratory assay results.		
Amoxapine (Asendin)	 CYP2D6: Not Tested	No recommendation for Amoxapine is available due to absent laboratory assay results.		
Clomipramine (CYP2C19) (Anafranil)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Clomipramine (CYP2D6) (Anafranil)	 CYP2D6: Not Tested	No recommendation for Clomipramine (CYP2D6) is available due to absent laboratory assay results.		
Desipramine (Norpramin)	 CYP2D6: Not Tested	No recommendation for Desipramine is available due to absent laboratory assay results.		
Doxepin (CYP2C19) (Deptran)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Doxepin (CYP2D6) (Deptran)	 CYP2D6: Not Tested	No recommendation for Doxepin (CYP2D6) is available due to absent laboratory assay results.		
Nortriptyline (Pamelor)	 CYP2D6: Not Tested	No recommendation for Nortriptyline is available due to absent laboratory assay results.		

Drug	Finding	Research Summary	Concern	Evidence
Protriptyline (Vivactil)	 CYP2D6: Not Tested	No recommendation for Protriptyline is available due to absent laboratory assay results.		
Trimipramine (Surmontil)	 CYP2D6: Not Tested	No recommendation for Trimipramine is available due to absent laboratory assay results.		
Trimipramine (CYP2C19) (Surmontil)	 CYP2C19: Poor metabolizer. Two little or no function alleles.	Poor metabolizers of this medication frequently present with notably higher plasma concentrations of the active medication, thus a significantly increased risk of side effects. This medication should be avoided.	ADR	
Trimipramine (CYP2C19, CYP2D6) (Surmontil)	 Multigenic: CYP2D6, CYP2C19: Poor metabolizer. Two little or no function alleles.	No recommendation for Trimipramine (CYP2C19, CYP2D6) is available due to absent laboratory assay results.		
Typical antipsychotics				
Flupenthixol (Depixol, Fluaxol)	 CYP2D6: Not Tested	No recommendation for Flupenthixol is available due to absent laboratory assay results.		
Haloperidol (Haldol)	 CYP2D6: Not Tested	No recommendation for Haloperidol is available due to absent laboratory assay results.		
Perphenazine (Trilafon)	 CYP2D6: Not Tested	No recommendation for Perphenazine is available due to absent laboratory assay results.		
Pimozide (Orap)	 CYP2D6: Not Tested	No recommendation for Pimozide is available due to absent laboratory assay results.		
Thioridazine (Mellaril, Melleril)	 CYP2D6: Not Tested	No recommendation for Thioridazine is available due to absent laboratory assay results.		
Zuclopenthixol (Cisordinol, Clopixol)	 CYP2D6: Not Tested	No recommendation for Zuclopenthixol is available due to absent laboratory assay results.		

Drug	Finding	Research Summary	Concern	Evidence
Vesicular monoamine transporter 2 inhibitor				
Deutetrabenazine (Austedo)	 CYP2D6: Not Tested	No recommendation for Deutetrabenazine is available due to absent laboratory assay results.		
Valbenazine (Ingrezza)	 CYP2D6: Not Tested	No recommendation for Valbenazine is available due to absent laboratory assay results.		
Xanthine Oxidase Inhibitor				
Allopurinol (Zyloprim)	 ABCG2: Poor function. Two decreased function alleles.	Individuals with poor function of this gene frequently present with increased risk of pharmacotherapy failure. Consider increasing the dose; monitor the patient's response to guide dosing.	Efficacy	
Allopurinol (HLA-B*5801) (Zyloprim)	 HLA-B*5801: Not Tested	No recommendation for Allopurinol (HLA-B*5801) is available due to absent laboratory assay results.		

SAMPLE

Evidence Levels

● Strong

- Includes gene-drug pairs supported by multiple studies documenting consistent effects of specific genetic variant(s) on clinical outcomes.
- Includes gene-drug pairs approved by the Coriell Pharmacogenomics Advisory Group.
- Includes gene-drug pairs with guidelines supported by a pharmacogenomics consortium.

■ Moderate

- Includes gene-drug pairs supported by pharmacokinetic, pharmacodynamic, or molecular/cellular functional studies showing consistent effects of genetic variant(s).
- Includes drug product information from regulatory agency-approved drug labels.
- Includes gene-drug pairs for which potential clinical outcomes are inferred from similar gene-drug interactions with guidelines supported by a pharmacogenomics consortium.

○ Emerging

- Includes gene-drug pairs supported by published studies of the drug, related drug, or a probing compound of interest involving limited or inconsistent findings.

SAMPLE

Patient Information Card

This card contains an abbreviated genetic research summary.
It is not intended as a replacement for the complete GeneDose™ report.



Coriell Life Sciences
www.coriell.com/

Patient: PGX3, 06
DOB: 2000-09-09
Sample ID: 2310277006

This card shows information about your genetics that relate to drug metabolism. Show to your doctors before being prescribed new medications.

Genetic Research Summary

ABCG2	T T	Poor function
ADRA2A(c.-1252G>C)	G G	Negative
ANKK1	Uncertain Allele	n/a
ATM(C11orf65)	C A	Positive
COMT(Val158Met)	A A	Poor function
CYP2B6	*1 *9	Intermediate metabolizer
CYP2C19	*2 *3	Poor metabolizer
CYP2C9	*1 *5	Intermediate metabolizer
CYP2D6	Not Tested	n/a
CYP3A4	*1A *22	Intermediate metabolizer

CYP3A5	*1 *1	Normal metabolizer
CYP4F2	*3 *3	n/a
DPYD	Uncertain Allele	n/a
Factor V Leiden	Heterozygous	See full GeneDose report
HLA-A*3101	Not Tested	n/a
HLA-B*1502	Not Tested	n/a
HLA-B*5701	Not Tested	n/a
HLA-B*5801	Not Tested	n/a
MTHFR (A1298C)	Heterozygous	See full GeneDose report
MTHFR (C677T)	Normal	See full GeneDose report
NUDT15	Uncertain Allele	n/a
OPRM1(A118G)	A G	Altered function
Prothrombin (F2)	Normal	See full GeneDose report
SLCO1B1	*1 *1	Normal function
TPMT	*1 *1	Normal metabolizer
UGT2B15	*2 *2	Poor function
VKORC1	*2 *2	High sensitivity to warfarin

↑ Cut on dotted lines.

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2310277006 - PGX3, 06 - Reported Oct 27, 2023 - DRAFT

Presented here are the results of the Coriell Life Sciences systematic review of available guidance and research literature. The CLS PGx Research Review is a general purpose research assistance service intended to provide users with relevant medical reference information related to identified gene variations and their drug associations. This research review reflects the professional opinions of the CLS research team, and are intended solely for general purpose research use and are not intended for use in clinical diagnosis or treatment. Independent review of the same evidence can be performed, with referenced sources documented at coriell.com/refs.