

ID: SPECIMEN-9243

Patient Information:

Name : Demo B. Example
Date of Birth: 10/09/1973
Sex at Birth: Male
Test Name: Comprehensive (All Drugs) Panel

Sample Information:

Date Collected: 25/08/2026
Date Received: 27/08/2026
Source: Buccal swab
Result Date: 31/08/2026

Referring Doctor:

Name: Dr Demo Consultant
Hospital: 30M Genomics
Place: —

COMPREHENSIVE (ALL DRUGS) PANEL — DRUG RESPONSE INFORMATION

37

GENES EVALUATED

579

 TOTAL DRUGS
ASSESSED

8

AVOID

213

USE WITH CAUTION

358

SAFE & EFFICIENT

REPORT SUMMARY

Safe & Efficient
Use with Caution
High Risk

CARDIOLOGY				113 drug(s)
Drug Class	Safe & Efficient	Use with Caution	High Risk	
ACE Inhibitors	Benazepril, Captopril, Imidapril, Lisinopril, Perindopril, Quinapril, Trandolapril	Enalapril, Ramipril	-	
Angiotensin II Receptor Antagonists	-	Losartan, Valsartan, Telmisartan	-	
Antiarrhythmics	Flecainide, Propafenone, Procainamide, Sotalol, Mexiletine, Quinidine, Dronedarone, Dopamine	Amiodarone	-	
Anticoagulants	Edoxaban	Warfarin, Acenocoumarol, Phenprocoumon, Dabigatran, Apixaban, Rivaroxaban	-	
Antidiabetic Agents	Canagliflozin, Empagliflozin	-	-	
Antiplatelets	Vorapaxar	Ticagrelor, Aspirin, Cilostazol	Clopidogrel, Prasugrel, Ticlopidine	
Beta Blockers	Metoprolol, Carvedilol, Nebivolol, Timolol, Atenolol, Bisoprolol, Bucindolol, Bufuralol, Talinolol, Betaxolol	Propranolol	-	
Calcium Channel Blockers	-	Amlodipine, Felodipine, Nicardipine, Nisoldipine, Diltiazem, Verapamil, Nifedipine, Nimodipine, Nitrendipine	-	
Diuretics	Eplerenone, Spironolactone, Furosemide, Hydrochlorothiazide	Torsemide	-	
Nitrates and Nitric Oxide Donors	Isosorbide di/mononitrate	Nitroglycerin, Sodium Nitroprusside	-	
Other Antihypertensives	Hydralazine, Minoxidil, Clonidine	Methyldopa	-	
Other Cardiovascular Agents	Gemfibrozil, Ezetimibe, Olmesartan, Ambrisentan, Disopyramide, Doxazosin, Epinephrine, Norepinephrine, Riociguat, Selexipag, Vericiguat, Digoxin, Ranolazine, Ivabradine, Tolvaptan, Latanoprost, Colchicine, Lidocaine, Lomitapide, Aliskiren, Finerenone, Phenylephrine, Fluindione	Bosentan, Sacubitril/Valsartan, Macitentan, Mavacamten, Sildenafil, Irbesartan, Candesartan	-	
Proton Pump	Rabeprazole	Omeprazole, Esomeprazole,	-	

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Drug Class	Safe & Efficient	Use with Caution	High Risk
Inhibitors		Lansoprazole, Dexlansoprazole, Pantoprazole	
Statins	Simvastatin, Rosuvastatin, Atorvastatin, Pravastatin, Pitavastatin, Fluvastatin, Lovastatin, Cerivastatin	-	-

ONCOLOGY

63 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antimetabolites	Methotrexate (high-dose), Methotrexate, Cytarabine, Tegafur	Mercaptopurine, Thioguanine, Mercaptopurine (IBD)	Fluorouracil, Capecitabine, Floxuridine
Cytotoxic Chemotherapy	Irinotecan, Doxorubicin, Daunorubicin, Carboplatin, Busulfan, Dacarbazine, Mitoxantrone, Topotecan, Bleomycin, Epirubicin, Mitomycin, Oxaliplatin, Procarbazine	Cisplatin, Vincristine, Ifosfamide, Docetaxel, Etoposide, Paclitaxel	Cyclophosphamide
Endocrine Therapies	Tamoxifen, Letrozole, Anastrozole, Exemestane, Flutamide, Abiraterone, Raloxifene	-	-
Immunomodulators and Other Antineoplastics	Belinostat	Bortezomib	-
Other Oncology Agents	Sacituzumab govitecan	Morphine	-
Supportive Care	Ondansetron, Tropisetron, Granisetron, Palonosetron, Zoledronate (zoledronic acid), Cinacalcet	Dronabinol (THC), Methoxsalen	-
Targeted Therapies	Pazopanib, Nilotinib, Axitinib, Sorafenib, Erlotinib, Gefitinib, Lapatinib, Regorafenib	Sunitinib, Everolimus, Belzutifan, Ibrutinib, Imatinib, Ruxolitinib	-

HAEMATOLOGY & COAGULATION

15 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Anticoagulants	-	Warfarin, Acenocoumarol, Phenprocoumon	-
Antimetabolites	-	Mercaptopurine, Azathioprine, Mercaptopurine (IBD)	-
Haematological Agents	Eltrombopag, Iptacopan, Daprodustat, Roxadustat, Vadadustat	Avatrombopag	-
Other Haematology and Coagulation Agents	Fluindione, Busulfan, Deferasirox	-	-

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PSYCHIATRY

144 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antiarrhythmics	Flecainide, Propafenone	-	-
Anticonvulsants	Carbamazepine, Oxcarbazepine, Lamotrigine	Clobazam, Phenytoin, Valproic acid	-
Antidepressants (Other)	Paroxetine, Fluvoxamine, Fluoxetine, Vortioxetine, Venlafaxine, Nefazodone, Milnacipran, Tianeptine, Desvenlafaxine, Levomilnacipran, Phenelzine, Reboxetine	Citalopram, Escitalopram, Sertraline, Duloxetine, Bupropion, Agomelatine, Trazodone, Vilazodone, Moclobemide, Esketamine	-
Antipsychotics	Aripiprazole, Brexpiprazole, Risperidone, Paliperidone, Haloperidol, Zuclopenthixol, Pimozide, Thioridazine, Iloperidone, Perphenazine, Chlorpromazine, Trifluoperazine, Clozapine, Olanzapine, Antipsychotics (general), Quetiapine, Ziprasidone, Bromperidol, Lurasidone, Cariprazine, Asenapine, Pimavanserin, Aripiprazole lauroxil, Flupentixol, Fluphenazine, Sertindole, Levomepromazine, Loxapine, Lumateperone, Melperone, Sulpiride, Zotepine	-	-
Anxiolytics and Hypnotics	Phenazepam, Prochlorperazine, Buspirone, Clonazepam, Estazolam, Gepirone, Hydroxyzine, Lormetazepam, Promethazine, Temazepam, Zuranolone, Nitrazepam, Zaleplon	Diazepam, Alprazolam, Midazolam, Triazolam, Zolpidem, Brexanolone, Chlordiazepoxide, Quazepam, Bromazepam, Brotizolam, Clorazepate, Eszopiclone, Flurazepam, Ramelteon, Suvorexant, Zopiclone, Melatonin	-
Dementia Agents	Donepezil, Galantamine, Rivastigmine, Memantine	-	-
Dependence and Withdrawal Agents	Disulfiram, Nalmefene	Naltrexone, Nicotine (NRT)	-
Opioid Analgesics	Codeine, Tramadol, Methadone, Buprenorphine / naloxone	Buprenorphine	-
Other Psychiatry Agents	Lithium, Clonidine, Endoxifen	Propranolol, Voriconazole, Ketamine	-
Parkinson and Movement Disorder Agents	Tetrabenazine, Deutetrabenazine, Valbenazine, Pramipexole, Selegiline	-	-
Stimulants and ADHD Agents	Atomoxetine, Pitolisant, Viloxazine	Methylphenidate, Amphetamine / Dextroamphetamine, Guanfacine, Modafinil, Armodafinil, Dexmethylphenidate, Lisdexamfetamine	-
Supportive Care	Ondansetron, Eliglustat	Dronabinol (THC)	-
Tricyclic and Tetracyclic Antidepressants	Nortriptyline, Desipramine, Maprotiline, Mianserin, Opipramol, Amoxapine, Protriptyline, Lofepramine	Amitriptyline, Clomipramine, Imipramine, Doxepin, Trimipramine, Mirtazapine, Dosulepin	-

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NEUROLOGY

86 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antiarrhythmics	Flecainide, Propafenone	-	-
Anticonvulsants	Carbamazepine, Oxcarbazepine, Lamotrigine, Perampanel, Zonisamide, Levetiracetam, Felbamate, Ethosuximide, Tiagabine	Clobazam, Phenytoin, Fosphenytoin, Phenobarbital, Brivaracetam, Valproic acid, Mephenytoin, Methylphenobarbital (mephobarbital), Lacosamide, Topiramate, Cannabidiol, Cenobamate, Primidone, Stiripentol	-
Anxiolytics and Hypnotics	Phenazepam, Clonazepam	Diazepam	-
Dementia Agents	Donepezil, Galantamine, Rivastigmine, Memantine, Tacrine	-	-
Migraine Agents	Almotriptan, Dihydroergotamine, Eletriptan, Ergotamine, Flunarizine, Zolmitriptan, Atogepant, Frovatriptan, Ubrogepant	Rimegepant	-
Neuroimmunology and Neurodegeneration	Risdiplam, Riluzole, Teriflunomide, Ozanimod, Ponesimod	Siponimod, Fingolimod	-
Opioid Analgesics	Codeine, Tramadol	-	-
Other	Timolol, Pitolisant, Pimavanserin, Tizanidine, Endoxifen	Amitriptyline, Thiopental, Voriconazole	-
Parkinson and Movement Disorder Agents	Tetrabenazine, Deutetrabenazine, Pramipexole, Selegiline, Ropinirole, Bromocriptine, Cabergoline, Istradefylline, Rasagiline, Benzotropine, Safinamide	Levodopa, Entacapone, Tolcapone, Apomorphine, Opicapone	-
Supportive Care	Ondansetron, Eliglustat	Dronabinol (THC)	-
Urological Agents	Amifampridine, Cinnarizine, Ezogabine, Pyridostigmine, Betahistine	Fenfluramine, Sulthiame	-

INFECTIOUS DISEASE

48 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antibacterials	Co-trimoxazole (sulfamethoxazole), Ciprofloxacin, Clarithromycin, Erythromycin, Metronidazole	-	-
Antifungals	Posaconazole	Voriconazole, Voriconazole (prophylaxis), Terbinafine, Fluconazole, Itraconazole, Isavuconazole	-
Antimalarials	Primaquine, Tafenoquine, Chloroquine, Hydroxychloroquine, Amodiaquine, Lumefantrine, Artemether/Lumefantrine, Artesunate, Mefloquine	Quinine, Atovaquone/Proguanil	Proguanil
Antimycobacterials	Isoniazid, Rifampin, Dapsone	-	-

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Drug Class	Safe & Efficient	Use with Caution	High Risk
Antiretrovirals (HIV)	Efavirenz, Nevirapine, Atazanavir, Tenofovir (TDF), Dolutegravir, Lopinavir, Indinavir, Maraviroc, Zidovudine (AZT), Raltegravir	Ritonavir, Nelfinavir, Etravirine	-
Antivirals (Hepatitis C)	Letemovir	Oseltamivir	-
Other Infectious Disease Agents	Ivermectin	-	-
Proton Pump Inhibitors	Rabeprazole	Omeprazole, Esomeprazole, Lansoprazole, Vonoprazan	-

PAIN ANAESTHESIA PERI-OP

59 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Anaesthetic Agents	Succinylcholine, Mivacurium, Articaine, Lidocaine, Bupivacaine, Dexmedetomidine, Ropivacaine, Rocuronium	Propofol, Ketamine, Etomidate, Thiopental	-
Muscle Relaxants	Cyclobenzaprine	Carisoprodol, Tolperisone	-
NSAIDs	Rofecoxib	Celecoxib, Ibuprofen, Flurbiprofen, Meloxicam, Piroxicam, Tenoxicam, Lornoxicam, Diclofenac, Naproxen, Ketoprofen, Ketorolac, Indomethacin, Diflunisal, Mefenamic acid	-
Opioid Analgesics	Codeine, Tramadol, Hydrocodone, Oxycodone, Methadone, Codeine (antitussive), Codeine (post-partum), Remifentanyl, Buprenorphine / naloxone, Butorphanol, Dihydrocodeine, Ethylmorphine, Dextropropoxyphene, Heroin (diamorphine), Hydromorphone, Oxymorphone, Oliceridine	Morphine, Opioids (general), Fentanyl, Alfentanil, Sufentanil, Buprenorphine, Tapentadol, Meperidine	-
Other Pain Anaesthesia Peri-op Agents	Dipyrone (metamizole)	Amitriptyline, Duloxetine, Aspirin	-

GASTROENTEROLOGY

27 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antimetabolites	-	Mercaptopurine, Azathioprine, Mercaptopurine (IBD)	-
Gastrointestinal Agents	Metoclopramide, Domperidone, Loperamide, Eluxadoline, Mesalamine	Alosetron	-
Other Gastroenterology Agents	Prochlorperazine, Ozanimod	Sulfasalazine, Budesonide	-
Proton Pump	Rabeprazole	Omeprazole, Esomeprazole,	-

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Drug Class	Safe & Efficient	Use with Caution	High Risk
Inhibitors		Lansoprazole, Dexlansoprazole, Pantoprazole, Vonoprazan	
Supportive Care	Ondansetron, Tropisetron, Dolasetron, Granisetron, Palonosetron	-	-
Targeted Therapies	Upadacitinib	Tofacitinib	-

RHEUMATOLOGY & IMMUNOLOGY

26 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antimetabolites	Methotrexate (high-dose), Methotrexate	Azathioprine	-
Corticosteroids	Prednisolone, Prednisone, Triamcinolone	Methylprednisolone, Dexamethasone	-
Disease-Modifying Antirheumatics	Colchicine	Sulfasalazine, Sulfapyrazole, Leflunomide, Lesinurad	-
Immunosuppressants	Mycophenolate mofetil	Voclosporin	-
NSAIDs	-	Celecoxib, Meloxicam, Piroxicam, Diclofenac, Naproxen	-
Other Rheumatology and Immunology Agents	Hydroxychloroquine, Zoledronate (zoledronic acid), Apremilast	-	-
Targeted Therapies	Baricitinib, Upadacitinib	Tofacitinib	-

TRANSPLANT IMMUNOSUPPRESSION

13 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antifungals	Posaconazole	Voriconazole, Voriconazole (prophylaxis)	-
Immunosuppressants	Sirolimus, Mycophenolate mofetil	Tacrolimus, Ciclosporin	-
Other Transplant Immunosuppression Agents	Letermovir, Busulfan	Azathioprine, Methylprednisolone	-
Targeted Therapies	-	Everolimus, Ruxolitinib	-

ENDOCRINOLOGY & METABOLISM

32 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antidiabetic Agents	Sulfonylureas, Pioglitazone, Repaglinide, Sitagliptin, Vildagliptin, Canagliflozin, Empagliflozin, Teneligliptin, Linagliptin, Alogliptin	Glipizide, Glimepiride, Glibenclamide, Tolbutamide, Gliclazide, Rosiglitazone, Semaglutide, Liraglutide, Exenatide, Nateglinide, Tirzepatide, Dulaglutide, Lixisenatide, Saxagliptin	-
Corticosteroids	Hydrocortisone	Dexamethasone	-
Other Endocrinology and Metabolism Agents	Methimazole, Bisphosphonates (class), Paricalcitol, Raloxifene	-	-
Supportive Care	Eliglustat, Cinacalcet	-	-

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PULMONOLOGY & ALLERGY

39 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antihistamines	Fexofenadine, Chlorpheniramine, Desloratadine	Diphenhydramine, Loratadine	-
Opioid Analgesics	Codeine, Codeine (antitussive), Codeine (post-partum), Ethylmorphine	-	-
Other Pulmonology and Allergy Agents	-	Nicotine (NRT)	-
Pulmonary Hypertension Agents	Tadalafil, Ambrisentan, Riociguat, Selexipag	Sildenafil, Bosentan, Macitentan	-
Respiratory Agents	Salbutamol (albuterol), Salmeterol, Theophylline, Montelukast, Dextromethorphan, Ivacaftor, Ephedrine, Methacholine, Caffeine, Elexacaftor/Tezacaftor/Ivacaftor, Lumacaftor/Ivacaftor, Tezacaftor/Ivacaftor, Vanzacaftor/Tezacaftor/Deutivacaftor, Beclomethasone, Roflumilast, Terbutaline	Formoterol, Pirfenidone, Zileuton, Zafirlukast, Budesonide, Nintedanib	-

DERMATOLOGY

20 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Antimetabolites	Methotrexate (high-dose), Methotrexate	Azathioprine	-
Biologics	Apremilast, Deucravacitinib	-	-
Dermatological Agents	Acitretin, Dutasteride, Finasteride	Isotretinoin	-
Immunosuppressants	-	Tacrolimus, Ciclosporin	-
Other Dermatology Agents	Minoxidil, Hydroxychloroquine, Dapsone	Terbinafine, Methoxsalen	-
Targeted Therapies	Baricitinib, Ritlecitinib, Upadacitinib	Abrocitinib	-

REPRODUCTIVE OB-GYN UROLOGY

28 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Endocrine Therapies	Tamoxifen, Letrozole	-	-
Opioid Analgesics	Codeine, Codeine (antitussive), Codeine (post-partum)	-	-
Other Reproductive Ob-Gyn Urology Agents	Ritodrine	Methyldopa	-
Sex Hormones and Fertility Agents	Testosterone, Medroxyprogesterone	Estradiol, Clomiphene, Fezolinetant	-
Urological Agents	Tolterodine, Fesoterodine, Tamsulosin,	Oxybutynin, Sildenafil, Dapoxetine,	-

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Drug Class	Safe & Efficient	Use with Caution	High Risk
	Solifenacin, Darifenacin, Mirabegron, Silodosin, Tadalafil, Doxazosin, Dutasteride, Finasteride	Alfuzosin, Vardenafil	

SPECIALTY & RARE DISEASE

11 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Other Specialty and Rare Disease Agents	Eliglustat, Mexiletine, Ivacaftor, Berostralstat, Deflazacort	Siponimod	-
Parkinson and Movement Disorder Agents	Tetrabenazine, Deutetrabenazine, Valbenazine	-	-
Rare Disease and Enzyme Therapies	Deferasirox, Setmelanotide	-	-

TRICHOLOGY

2 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Hair Growth Agents	Minoxidil	Deuruxolitinib	-

OPHTHALMOLOGY

2 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Ophthalmic Agents	Brimonidine, Travoprost	-	-

OTHER

2 drug(s)

Drug Class	Safe & Efficient	Use with Caution	High Risk
Rare Disease and Enzyme Therapies	Fomepizole	Sparsentan	-

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GENOTYPE SUMMARY OF THE PATIENT

Gene	Marker	Genotype result	Diplotype	Phenotype	Process affected (ADME)
CYP2C19	rs4244285; rs4986893; rs12248560	GA; GA; CC	*2/*3	Poor metabolizer	Metabolism
CYP2C9	rs1799853; rs1057910	CC; AC	*1/*3	Intermediate metabolizer	Metabolism
VKORC1	rs9923231	CC	—	Normal warfarin sensitivity	Pharmacodynamic response
CYP4F2	rs2108622	CT	*1/*3	Intermediate metabolizer	Metabolism
CYP3A4	rs35599367	GG	*1/*1	Normal metabolizer	Metabolism
CYP2B6	rs3745274	GG	*1/*1	Normal metabolizer	Metabolism
CES1	rs2244613; rs8192935	GT; GG	—	Poor metabolizer	Metabolism
SLCO1B1	rs4149056	TT	*1/*1	Normal transporter function	Distribution
ABCG2	rs2231142	GG	—	Normal predicted response	Absorption, Excretion
CYP2D6	rs3892097; rs1065852	CC; GG	*1/*1	Normal metabolizer	Metabolism
ADRB1	rs1801252; rs1801253	AA; GG	—	Typical beta-1 adrenergic response	Pharmacodynamic response
ADRB2	rs1042713; rs1042714	GG; GG	—	Typical beta-2 adrenergic response	Pharmacodynamic response
UGT1A1	rs8175347	*1/*1	*1/*1	Normal metabolizer	Metabolism
UGT2B7	rs7439366	TT	*1/*1	Normal metabolizer	Metabolism
ABCB1	rs1045642	AA	—	Normal predicted response	Absorption, Distribution
NAT2	rs1801280; rs1799930; rs1799931	TT; GG; GG	*1/*1	Rapid acetylator	Metabolism
ALDH2	rs671	GG	*1/*1	Normal predicted response	Metabolism
NOS3	rs1799983; rs2070744	TG; CC	—	Altered predicted response, one variant allele present	Pharmacodynamic response
SULT1A1	rs1042028	CC	—	Normal metabolizer	Metabolism
CYP3A5	rs776746	TC	*1/*3	Intermediate expresser	Metabolism
TPMT	rs1800462; rs1800460	GC; GG	*1/*2	Intermediate metabolizer	Metabolism
NUDT15	rs116855232	CC	*1/*1	Normal metabolizer	Metabolism
COMT	rs4680	GA	—	Altered predicted response, one variant allele present	Metabolism, Pharmacodynamic response
ERCC1	rs11615	AA	—	Normal predicted response	Pharmacodynamic response

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Gene	Marker	Genotype result	Diplotype	Phenotype	Process affected (ADME)
GSTP1	rs1695	AA	—	Normal predicted response	Pharmacodynamic response
DPYD	rs3918290; rs55886062; rs67376798; rs56038477; rs75017182	GG; TG; AA; GA; CC	—	Poor metabolizer	Metabolism
CYP1A2	rs762551	CC	*1/*1	Normal metabolizer	Metabolism
GADL1; BDNF; chr21 lncRNA	rs6265; rs17026688	GG; CC	—	Normal predicted response	Pharmacodynamic response
MC4R	rs489693	CC	—	Normal predicted response	Pharmacodynamic response
OPRM1	rs1799971	AA	—	Normal predicted response	Pharmacodynamic response
UGT1A4	rs2011425	TT	*1/*1	Normal metabolizer	Metabolism
CYP2C8	rs11572103	TT	*1/*1	Normal metabolizer	Metabolism
BCHE	rs1799807; rs1803274	AA; GG	—	Normal metabolizer	Metabolism
TCF7L2	rs7903146	CC	—	Normal predicted response	Pharmacodynamic response
GLP1R	rs6923761; rs10305420	GG; CT	—	Altered predicted response, one variant allele present	Pharmacodynamic response
ACE	rs4646994	I/I	—	Normal predicted response	Pharmacodynamic response
GIPR	rs1800437; rs10423928	GC; TA	—	Altered predicted response, one variant allele present	Pharmacodynamic response

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

COMPREHENSIVE (ALL DRUGS) PANEL — DRUG RESPONSE BY CLASS

 Safe & Efficient

 Use with Caution

 High Risk

ACE INHIBITORS					
Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Enalapril Evidence L3 · Use with Caution	ACE: Normal predicted response CES1: Poor metabolizer	rs4646994 - I/I rs2244613 - GT / rs8192935 - GG	This patient breaks down Enalapril slowly through CES1, so usual doses build up and raise the chance of side-effects. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Enalapril may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Ramipril Evidence L3 · Use with Caution	ACE: Normal predicted response NOS3: Altered predicted response, one variant allele present	rs4646994 - I/I rs1799983 - TG / rs2070744 - CC	NOS3 indicates altered predicted response, one variant allele present, which can alter the response to Ramipril.	Ramipril may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Benazepril Evidence L3 · Safe & Efficient	ACE: Normal predicted response	rs4646994 - I/I	No pharmacogenomic concerns were identified for Benazepril from the genes assessed.	Standard dosing of Benazepril is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Captopril Evidence L3 · Safe & Efficient	ACE: Normal predicted response	rs4646994 - I/I	No pharmacogenomic concerns were identified for Captopril from the genes assessed.	Standard dosing of Captopril is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Hospital: 30M Genomics

Place: —

ACE INHIBITORS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Imidapril Evidence L3 · Safe & Efficient	ACE: Normal predicted response	rs4646994 - I/I	No pharmacogenomic concerns were identified for Imidapril from the genes assessed.	Standard dosing of Imidapril is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Lisinopril Evidence L3 · Safe & Efficient	ACE: Normal predicted response	rs4646994 - I/I	No pharmacogenomic concerns were identified for Lisinopril from the genes assessed.	Standard dosing of Lisinopril is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Perindopril Evidence L3 · Safe & Efficient	ACE: Normal predicted response	rs4646994 - I/I	No pharmacogenomic concerns were identified for Perindopril from the genes assessed.	Standard dosing of Perindopril is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Quinapril Evidence L3 · Safe & Efficient	ACE: Normal predicted response	rs4646994 - I/I	No pharmacogenomic concerns were identified for Quinapril from the genes assessed.	Standard dosing of Quinapril is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Trandolapril Evidence L3 · Safe & Efficient	ACE: Normal predicted response	rs4646994 - I/I	No pharmacogenomic concerns were identified for Trandolapril from the genes assessed.	Standard dosing of Trandolapril is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANAESTHETIC AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Etomidate Evidence L4 (informative) · Use with Caution	CYP2B6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer	*1/*1 *1/*1 *1/*3	CYP2C9 activity is partly reduced, so Etomidate may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Etomidate may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, efavirenz, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

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Sex at Birth: Male

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Panel

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ANAESTHETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ketamine Evidence L3 · Use with Caution	CYP2B6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer CYP2C19: Poor metabolizer COMT: Altered predicted response, one variant allele present	*1/*1 *1/*1 *1/*3 *2/*3 rs4680 - GA	CYP2C9 activity is partly reduced, so Ketamine may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Ketamine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. COMT indicates altered predicted response, one variant allele present, which can alter the response to Ketamine.	Ketamine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: ticlopidine, clopidogrel, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, fluvoxamine, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, sulfamethoxazole, omeprazole, esomeprazole May decrease response: rifampicin, efavirenz, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Propofol Evidence L3 · Use with Caution	CYP2B6: Normal metabolizer CYP2C9: Intermediate metabolizer GSTP1: Normal predicted response	*1/*1 *1/*3 rs1695 - AA	CYP2C9 activity is partly reduced, so Propofol may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Propofol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, fluconazole, amiodarone, miconazole, voriconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, efavirenz, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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ANAESTHETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Thiopental Evidence L4 (informative) · Use with Caution	CYP2C19: Poor metabolizer CYP2B6: Normal metabolizer	*2/*3 *1/*1	This patient breaks down Thiopental slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Thiopental may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, clopidogrel, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine, efavirenz Other factors: Kidney function; Adherence
Articaine Evidence L4 (informative) · Safe & Efficient	BCHE: Normal metabolizer CYP2D6: Normal metabolizer	rs1799807 - AA / rs1803274 - GG *1/*1	No pharmacogenomic concerns were identified for Articaine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Articaine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Hospital: 30M Genomics

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ANAESTHETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Bupivacaine Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Bupivacaine from the genes assessed.	Standard dosing of Bupivacaine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Dexmedetomidine Evidence L4 (informative) · Safe & Efficient	UGT1A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Dexmedetomidine from the genes assessed.	Standard dosing of Dexmedetomidine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Hospital: 30M Genomics

Place: —

ANAESTHETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Lidocaine Evidence L4 · Safe & Efficient	CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Lidocaine from the genes assessed.	Standard dosing of Lidocaine is appropriate on the basis of the genes assessed. Key risks: ECG / QT and drug levels — narrow safety margin.	May increase response: fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Mivacurium Evidence L2 · Safe & Efficient	BCHE: Normal metabolizer	rs1799807 - AA / rs1803274 - GG	No pharmacogenomic concerns were identified for Mivacurium from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Mivacurium is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Rocuronium Evidence L4 (informative) · Safe & Efficient	SLCO1B1: Normal transporter function ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Rocuronium from the genes assessed.	Standard dosing of Rocuronium is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

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Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANAESTHETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ropivacaine Evidence L4 (informative) · Safe & Efficient	CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Ropivacaine from the genes assessed.	Standard dosing of Ropivacaine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Succinylcholine Evidence L2 · Safe & Efficient	BCHE: Normal metabolizer	rs1799807 - AA / rs1803274 - GG	No pharmacogenomic concerns were identified for Succinylcholine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Succinylcholine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

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Place: —

ANTIARRHYTHMICS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Amiodarone Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer ABCB1: Normal predicted response SLCO1B1: Normal transporter function	*1/*3 *1/*1 *1/*1 *1/*1 rs1045642 - AA *1/*1	CYP2C9 activity is partly reduced, so Amiodarone may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Amiodarone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: ECG / QT and drug levels — narrow safety margin.	May increase response: fluconazole, miconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluvoxamine, ciprofloxacin, metronidazole, sulfamethoxazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Enzyme interaction (perpetrator); Adherence
Dopamine Evidence L4 (informative) · Safe & Efficient	ADRB1: Typical beta-1 adrenergic response	rs1801252 - AA / rs1801253 - GG	No pharmacogenomic concerns were identified for Dopamine from the genes assessed.	Standard dosing of Dopamine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Hospital: 30M Genomics

Place: —

ANTIARRHYTHMICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dronedaron Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Dronedaron from the genes assessed.	Standard dosing of Dronedaron is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Flecainide Evidence L2 (DPWG/FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Flecainide from the genes assessed.	Standard dosing of Flecainide is appropriate on the basis of the genes assessed. Key risks: ECG / QT and drug levels — narrow safety margin.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

ANTIARRHYTHMICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Mexiletine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Mexiletine from the genes assessed.	Standard dosing of Mexiletine is appropriate on the basis of the genes assessed. Key risks: ECG / QT and drug levels — narrow safety margin.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Procainamide Evidence L3 · Safe & Efficient	NAT2: Rapid acetylator CYP2D6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Procainamide from the genes assessed.	Standard dosing of Procainamide is appropriate on the basis of the genes assessed. Key risks: ECG / QT and drug levels — narrow safety margin.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Propafenone Evidence L2 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Propafenone from the genes assessed.	Standard dosing of Propafenone is appropriate on the basis of the genes assessed. Key risks: ECG / QT and drug levels — narrow safety margin.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

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Test Name: Comprehensive (All Drugs)
Panel

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ANTIARRHYTHMICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Quinidine Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Quinidine from the genes assessed.	Standard dosing of Quinidine is appropriate on the basis of the genes assessed. Key risks: ECG / QT and drug levels — narrow safety margin.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Enzyme interaction (perpetrator); Adherence

ANTIBACTERIALS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ciprofloxacin Evidence L4 (informative) · Safe & Efficient	CYP1A2: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Ciprofloxacin from the genes assessed.	Standard dosing of Ciprofloxacin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTIBACTERIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Clarithromycin Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response SLCO1B1: Normal transporter function	*1/*1 rs1045642 - AA *1/*1	No pharmacogenomic concerns were identified for Clarithromycin from the genes assessed.	Standard dosing of Clarithromycin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Co-trimoxazole (sulfamethoxazole) Evidence L2 · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Co-trimoxazole (sulfamethoxazole) from the genes assessed.	Standard dosing of Co-trimoxazole (sulfamethoxazole) is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Erythromycin Evidence L4 (informative) · Safe & Efficient	SLCO1B1: Normal transporter function CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Erythromycin from the genes assessed.	Standard dosing of Erythromycin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs) Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTIBACTERIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Metronidazole Evidence L4 (informative) · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Metronidazole from the genes assessed.	Standard dosing of Metronidazole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ANTICOAGULANTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Acenocoumarol Evidence L2 (DPWG) · Use with Caution	CYP2C9: Intermediate metabolizer VKORC1: Normal warfarin sensitivity	*1/*3 rs9923231 - CC	CYP2C9 activity is partly reduced, so Acenocoumarol may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Acenocoumarol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	May increase response: fluconazole, amiodarone, miconazole, NSAIDs and antiplatelet drugs (additive bleeding), azole antifungals & amiodarone (raise warfarin effect), metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Hospital: 30M Genomics

Place: —

ANTICOAGULANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Apixaban Evidence L3 (PharmGKB) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response ABCG2: Normal predicted response SULT1A1: Normal metabolizer	*1/*1 *1/*3 rs1045642 - AA rs2231142 - GG rs1042028 - CC	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Apixaban. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Apixaban may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, NSAIDs and antiplatelet drugs (additive bleeding), azole antifungals & amiodarone (raise warfarin effect), erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Dabigatran Evidence L3 · Use with Caution	CES1: Poor metabolizer ABCB1: Normal predicted response	rs2244613 - GT / rs8192935 - GG rs1045642 - AA	This patient breaks down Dabigatran slowly through CES1, so usual doses build up and raise the chance of side-effects. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Dabigatran may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTICOAGULANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Phenprocoumon Evidence L2 (DPWG) · Use with Caution	CYP2C9: Intermediate metabolizer VKORC1: Normal warfarin sensitivity	*1/*3 rs9923231 - CC	CYP2C9 activity is partly reduced, so Phenprocoumon may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Phenprocoumon may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	May increase response: fluconazole, amiodarone, miconazole, NSAIDs and antiplatelet drugs (additive bleeding), azole antifungals & amiodarone (raise warfarin effect), metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Rivaroxaban Evidence L3 (PharmGKB) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response ABCG2: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA rs2231142 - GG	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Rivaroxaban. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Rivaroxaban may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, NSAIDs and antiplatelet drugs (additive bleeding), azole antifungals & amiodarone (raise warfarin effect), erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
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Hospital: 30M Genomics

Place: —

ANTICOAGULANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Warfarin Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer VKORC1: Normal warfarin sensitivity CYP4F2: Intermediate metabolizer	*1/*3 rs9923231 - CC *1/*3	CYP2C9 activity is partly reduced, so Warfarin may build up at standard doses. CPIC advises using a validated genotype-guided dosing algorithm rather than a fixed starting dose. CYP4F2 activity is partly reduced, so Warfarin may build up at standard doses. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Warfarin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	May increase response: fluconazole, amiodarone, miconazole, NSAIDs and antiplatelet drugs (additive bleeding), azole antifungals & amiodarone (raise warfarin effect), metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Food: Green leafy vegetables (vitamin K); Alcohol, cranberry juice, ginkgo & garlic supplements Other factors: Kidney function; Adherence
Edoxaban Evidence L4 (PharmGKB; informational) · Safe & Efficient	ABCB1: Normal predicted response SLCO1B1: Normal transporter function	rs1045642 - AA *1/*1	No pharmacogenomic concerns were identified for Edoxaban from the genes assessed.	Standard dosing of Edoxaban is appropriate on the basis of the genes assessed. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	May increase response: NSAIDs and antiplatelet drugs (additive bleeding), azole antifungals & amiodarone (raise warfarin effect) Other factors: Kidney function; Adherence

ANTICONVULSANTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Brivaracetam Evidence L2 (FDA) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Brivaracetam slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Brivaracetam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Place: —

ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Cannabidiol Evidence L2 (FDA label / PharmGKB) · Use with Caution	CYP2C19: Poor metabolizer CYP2C9: Intermediate metabolizer	*2/*3 *1/*3	This patient breaks down Cannabidiol slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. CYP2C9 activity is partly reduced, so Cannabidiol may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Cannabidiol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, amiodarone, miconazole, omeprazole, esomeprazole, voriconazole, metronidazole, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Cenobamate Evidence L2 (FDA label / PharmGKB) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Cenobamate slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Cenobamate may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Clobazam Evidence L2 · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Clobazam slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Clobazam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

ID: SPECIMEN-9243

Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Fosphenytoin Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Fosphenytoin may build up at standard doses. CPIC advises reducing the maintenance dose by approximately 25% with concentration monitoring.	Fosphenytoin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Lacosamide Evidence L3 · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Lacosamide slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Lacosamide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Mephenytoin Evidence L3 · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Mephenytoin slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Mephenytoin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Methylphenobarbital (mephobarbital) Evidence L3 · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Methylphenobarbital (mephobarbital) slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Methylphenobarbital (mephobarbital) may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

ID: SPECIMEN-9243

Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Phenobarbital Evidence L2 · Use with Caution	CYP2C19: Poor metabolizer CYP2C9: Intermediate metabolizer	*2/*3 *1/*3	This patient breaks down Phenobarbital slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. CYP2C9 activity is partly reduced, so Phenobarbital may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Phenobarbital may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, fluvoxamine, ticlopidine, amiodarone, miconazole, omeprazole, esomeprazole, voriconazole, metronidazole, sulfamethoxazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Phenytoin Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Phenytoin may build up at standard doses. CPIC advises reducing the maintenance dose by approximately 25% with concentration monitoring.	Phenytoin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Primidone Evidence L3 (PharmGKB (metabolised to phenobarbital)) · Use with Caution	CYP2C19: Poor metabolizer CYP2C9: Intermediate metabolizer	*2/*3 *1/*3	This patient breaks down Primidone slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. CYP2C9 activity is partly reduced, so Primidone may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Primidone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, amiodarone, miconazole, omeprazole, esomeprazole, voriconazole, metronidazole, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

ID: SPECIMEN-9243

Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Name: Dr Demo Consultant

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Place: —

ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Stiripentol Evidence L3 (PharmGKB (CYP inhibitor)) · Use with Caution	CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer	*2/*3 *1/*1 *1/*1	This patient breaks down Stiripentol slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Stiripentol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, ciprofloxacin, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Source: Buccal swab

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Name: Dr Demo Consultant

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Place: —

ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Topiramate Evidence L4 · Use with Caution	CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer	*2/*3 *1/*1	This patient breaks down Topiramate slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Topiramate may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Valproic acid Evidence L4 (informative) · Use with Caution	ABCB1: Normal predicted response UGT2B7: Normal metabolizer CYP2C9: Intermediate metabolizer CYP2C19: Poor metabolizer CYP2B6: Normal metabolizer UGT1A4: Normal metabolizer	rs1045642 - AA *1/*1 *1/*3 *2/*3 *1/*1 *1/*1	CYP2C9 activity is partly reduced, so Valproic acid may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Valproic acid slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Valproic acid may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: fluconazole, amiodarone, miconazole, fluvoxamine, ticlopidine, clopidogrel, metronidazole, sulfamethoxazole, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine, phenobarbital, efavirenz Other factors: Kidney function; Adherence

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Patient Information:
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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Carbamazepine Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response CYP3A4: Normal metabolizer	rs1045642 - AA *1/*1	No pharmacogenomic concerns were identified for Carbamazepine from the genes assessed.	Standard dosing of Carbamazepine is appropriate on the basis of the genes assessed. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Ethosuximide Evidence L4 (candidate gene) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2B6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Ethosuximide from the genes assessed.	Standard dosing of Ethosuximide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, ticlopidine, clopidogrel, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, efavirenz Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

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Sex at Birth: Male

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Panel

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Place: —

ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Felbamate Evidence L3 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Felbamate from the genes assessed.	Standard dosing of Felbamate is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Lamotrigine Evidence L4 (informative) · Safe & Efficient	UGT1A4: Normal metabolizer UGT2B7: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Lamotrigine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Lamotrigine is appropriate on the basis of the genes assessed. Key risks: Therapeutic levels and seizure control; watch for rash.	Other factors: Kidney function; Adherence
Levetiracetam Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response OPRM1: Normal predicted response	rs1045642 - AA rs1799971 - AA	No pharmacogenomic concerns were identified for Levetiracetam from the genes assessed.	Standard dosing of Levetiracetam is appropriate on the basis of the genes assessed. Key risks: Therapeutic levels and seizure control; watch for rash.	Other factors: Kidney function; Adherence
Oxcarbazepine Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Oxcarbazepine from the genes assessed.	Standard dosing of Oxcarbazepine is appropriate on the basis of the genes assessed. Key risks: Therapeutic levels and seizure control; watch for rash.	Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Perampanel Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Perampanel from the genes assessed.	Standard dosing of Perampanel is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Tiagabine Evidence L4 (candidate gene) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tiagabine from the genes assessed.	Standard dosing of Tiagabine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANTICONVULSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Zonisamide Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer NAT2: Rapid acetylator	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Zonisamide from the genes assessed.	Standard dosing of Zonisamide is appropriate on the basis of the genes assessed. Key risks: Therapeutic levels and seizure control; watch for rash.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ANTIDEPRESSANTS (OTHER)

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Agomelatine Evidence L3 · Use with Caution	CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer CYP2C19: Poor metabolizer	*1/*1 *1/*3 *2/*3	CYP2C9 activity is partly reduced, so Agomelatine may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Agomelatine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Agomelatine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, ticlopidine, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole, esomeprazole, voriconazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Bupropion Evidence L3 · Use with Caution	CYP2B6: Normal metabolizer CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response COMT: Altered predicted response, one variant allele present	*1/*1 *1/*1 *1/*1 *1/*1 rs1045642 - AA rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Bupropion.	Bupropion may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, efavirenz, carbamazepine, tobacco smoke, omeprazole, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Citalopram Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer CYP2D6: Normal metabolizer	*2/*3 *1/*1	This patient breaks down Citalopram slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Citalopram may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: fluconazole, fluvoxamine, ticlopidine, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, omeprazole, esomeprazole, voriconazole, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dapoxetine Evidence L3 · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Intermediate metabolizer	*1/*1 *1/*2	CYP2C19 activity is partly reduced, so Dapoxetine may build up at standard doses. Guideline-directed dose adjustment may apply; check the drug-specific recommendation.	Dapoxetine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Duloxetine Evidence L3 · Use with Caution	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 *1/*3 rs1045642 - AA	CYP2C9 activity is partly reduced, so Duloxetine may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Duloxetine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Escitalopram Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Escitalopram slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Escitalopram may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Esketamine Evidence L4 (FDA label / literature) · Use with Caution	CYP2B6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer CYP2C19: Poor metabolizer	*1/*1 *1/*1 *1/*3 *2/*3	CYP2C9 activity is partly reduced, so Esketamine may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Esketamine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Esketamine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, fluvoxamine, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, sulfamethoxazole, omeprazole, esomeprazole May decrease response: rifampicin, efavirenz, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Moclobemide Evidence L3 · Use with Caution	CYP2C19: Intermediate metabolizer CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer	*1/*2 *1/*1 *1/*1	CYP2C19 activity is partly reduced, so Moclobemide may build up at standard doses. Guideline-directed dose adjustment may apply; check the drug-specific recommendation.	Moclobemide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, ciprofloxacin, omeprazole, esomeprazole, voriconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, tobacco smoke Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Sertraline Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer CYP2B6: Normal metabolizer	*2/*3 *1/*1	This patient breaks down Sertraline slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Sertraline may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: fluconazole, fluvoxamine, ticlopidine, clopidogrel, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine, efavirenz Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Trazodone Evidence L3 · Use with Caution	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 *2/*3 rs1045642 - AA	This patient breaks down Trazodone slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Trazodone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Vilazodone Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Intermediate metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*2 *1/*1 rs1045642 - AA	CYP2C19 activity is partly reduced, so Vilazodone may build up at standard doses. Guideline-directed dose adjustment may apply; check the drug-specific recommendation.	Vilazodone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Desvenlafaxine Evidence L3 (CPIC (minimal effect)) · Safe & Efficient	CYP2D6: Normal metabolizer UGT1A1: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Desvenlafaxine from the genes assessed.	Standard dosing of Desvenlafaxine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Fluoxetine Evidence L1 (limited action) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Fluoxetine from the genes assessed.	Standard dosing of Fluoxetine is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Fluvoxamine Evidence L1-L2 (CPIC) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Fluvoxamine from the genes assessed.	Standard dosing of Fluvoxamine is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Levomilnacipran Evidence L3 (CPIC (minimal effect)) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Levomilnacipran from the genes assessed.	Standard dosing of Levomilnacipran is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Milnacipran Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Milnacipran from the genes assessed.	Standard dosing of Milnacipran is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Nefazodone Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Nefazodone from the genes assessed.	Standard dosing of Nefazodone is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Paroxetine Evidence L1-L2 (CPIC) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Paroxetine from the genes assessed.	Standard dosing of Paroxetine is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Phenelzine Evidence L3 (PharmGKB / candidate gene) · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Phenelzine from the genes assessed.	Standard dosing of Phenelzine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Reboxetine Evidence L4 (candidate gene) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Reboxetine from the genes assessed.	Standard dosing of Reboxetine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Tianeptine Evidence L4 · Safe & Efficient	OPRM1: Normal predicted response CYP3A4: Normal metabolizer	rs1799971 - AA *1/*1	No pharmacogenomic concerns were identified for Tianeptine from the genes assessed.	Standard dosing of Tianeptine is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTIDEPRESSANTS (OTHER) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Venlafaxine Evidence L2 (DPWG) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Venlafaxine from the genes assessed.	Standard dosing of Venlafaxine is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Vortioxetine Evidence L1 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Vortioxetine from the genes assessed.	Standard dosing of Vortioxetine is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ANTIDIABETIC AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dulaglutide Evidence L3 · Use with Caution	GLP1R: Altered predicted response, one variant allele present TCF7L2: Normal predicted response MC4R: Altered predicted response, one variant allele present	rs6923761 - GG / rs10305420 - CT rs7903146 - CC rs17782313 - TC	GLP1R indicates altered predicted response, one variant allele present, which can alter the response to Dulaglutide. MC4R indicates altered predicted response, one variant allele present, which can alter the response to Dulaglutide.	Dulaglutide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Exenatide Evidence L3 · Use with Caution	GLP1R: Altered predicted response, one variant allele present TCF7L2: Normal predicted response MC4R: Altered predicted response, one variant allele present	rs6923761 - GG / rs10305420 - CT rs7903146 - CC rs17782313 - TC	GLP1R indicates altered predicted response, one variant allele present, which can alter the response to Exenatide. MC4R indicates altered predicted response, one variant allele present, which can alter the response to Exenatide.	Exenatide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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ANTIDIABETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Glibenclamide Evidence L2 (DPWG) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Glibenclamide may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Glibenclamide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Hypoglycaemia, especially if clearance is slow.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Gliclazide Evidence L2 (DPWG) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Gliclazide may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Gliclazide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Hypoglycaemia, especially if clearance is slow.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Glimepiride Evidence L2 (DPWG) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Glimepiride may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Glimepiride may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Hypoglycaemia, especially if clearance is slow.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

ID: SPECIMEN-9243

Patient Information:
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Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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ANTIDIABETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Glipizide Evidence L2 (DPWG) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Glipizide may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Glipizide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Hypoglycaemia, especially if clearance is slow.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Liraglutide Evidence L3 · Use with Caution	GLP1R: Altered predicted response, one variant allele present TCF7L2: Normal predicted response MC4R: Altered predicted response, one variant allele present	rs6923761 - GG / rs10305420 - CT rs7903146 - CC rs17782313 - TC	GLP1R indicates altered predicted response, one variant allele present, which can alter the response to Liraglutide. MC4R indicates altered predicted response, one variant allele present, which can alter the response to Liraglutide.	Liraglutide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Lixisenatide Evidence L3 · Use with Caution	GLP1R: Altered predicted response, one variant allele present TCF7L2: Normal predicted response MC4R: Altered predicted response, one variant allele present	rs6923761 - GG / rs10305420 - CT rs7903146 - CC rs17782313 - TC	GLP1R indicates altered predicted response, one variant allele present, which can alter the response to Lixisenatide. MC4R indicates altered predicted response, one variant allele present, which can alter the response to Lixisenatide.	Lixisenatide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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ANTIDIABETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Nateglinide Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer SLCO1B1: Normal transporter function CYP3A4: Normal metabolizer	*1/*3 *1/*1 *1/*1	CYP2C9 activity is partly reduced, so Nateglinide may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Nateglinide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, metronidazole, fluvoxamine, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Rosiglitazone Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Rosiglitazone may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Rosiglitazone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

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ANTIDIABETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Saxagliptin Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser TCF7L2: Normal predicted response	*1/*1 *1/*3 rs7903146 - CC	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Saxagliptin. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Saxagliptin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Semaglutide Evidence L3 · Use with Caution	GLP1R: Altered predicted response, one variant allele present TCF7L2: Normal predicted response MC4R: Altered predicted response, one variant allele present	rs6923761 - GG / rs10305420 - CT rs7903146 - CC rs17782313 - TC	GLP1R indicates altered predicted response, one variant allele present, which can alter the response to Semaglutide. MC4R indicates altered predicted response, one variant allele present, which can alter the response to Semaglutide.	Semaglutide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Tirzepatide Evidence L4 (exploratory) · Use with Caution	GLP1R: Normal predicted response GIPR: Altered predicted response, one variant allele present TCF7L2: Normal predicted response MC4R: Altered predicted response, one variant allele present	rs6923761 - GG / rs3765467 - GG rs1800437 - GC / rs10423928 - TA rs7903146 - CC rs17782313 - TC	GIPR indicates altered predicted response, one variant allele present, which can alter the response to Tirzepatide. MC4R indicates altered predicted response, one variant allele present, which can alter the response to Tirzepatide.	Tirzepatide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Date of Birth: 10/09/1973

Sex at Birth: Male

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ANTIDIABETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Tolbutamide Evidence L2 (DPWG) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Tolbutamide may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Tolbutamide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Hypoglycaemia, especially if clearance is slow.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Alogliptin Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer TCF7L2: Normal predicted response	*1/*1 *1/*1 rs7903146 - CC	No pharmacogenomic concerns were identified for Alogliptin from the genes assessed.	Standard dosing of Alogliptin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Canagliflozin Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response ABCG2: Normal predicted response	rs1045642 - AA rs2231142 - GG	No pharmacogenomic concerns were identified for Canagliflozin from the genes assessed.	Standard dosing of Canagliflozin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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ANTIDIABETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Empagliflozin Evidence L4 (informative) · Safe & Efficient	UGT2B7: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Empagliflozin from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Empagliflozin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Linagliptin Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer TCF7L2: Normal predicted response	*1/*1 rs7903146 - CC	No pharmacogenomic concerns were identified for Linagliptin from the genes assessed.	Standard dosing of Linagliptin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Pioglitazone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer SLCO1B1: Normal transporter function	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Pioglitazone from the genes assessed.	Standard dosing of Pioglitazone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

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ANTIDIABETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Repaglinide Evidence L2 · Safe & Efficient	CYP2C8: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Repaglinide from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Repaglinide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clopidogrel, trimethoprim May decrease response: rifampicin Other factors: Kidney function; Adherence
Sitagliptin Evidence L3 · Safe & Efficient	TCF7L2: Normal predicted response	rs7903146 - CC	No pharmacogenomic concerns were identified for Sitagliptin from the genes assessed.	Standard dosing of Sitagliptin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Sulfonylureas Evidence L3 · Safe & Efficient	TCF7L2: Normal predicted response	rs7903146 - CC	No pharmacogenomic concerns were identified for Sulfonylureas from the genes assessed.	Standard dosing of Sulfonylureas is appropriate on the basis of the genes assessed. Key risks: Hypoglycaemia, especially if clearance is slow.	Other factors: Kidney function; Adherence
Teneligliptin Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer TCF7L2: Normal predicted response	*1/*1 rs7903146 - CC	No pharmacogenomic concerns were identified for Teneligliptin from the genes assessed.	Standard dosing of Teneligliptin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

ANTIDIABETIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Vildagliptin Evidence L3 · Safe & Efficient	TCF7L2: Normal predicted response	rs7903146 - CC	No pharmacogenomic concerns were identified for Vildagliptin from the genes assessed.	Standard dosing of Vildagliptin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ANTIFUNGALS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Fluconazole Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer CYP2C19: Poor metabolizer	*1/*3 *2/*3	CYP2C9 activity is partly reduced, so Fluconazole may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Fluconazole slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Fluconazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Liver enzymes; many CYP interactions; QT.	May increase response: amiodarone, miconazole, fluvoxamine, ticlopidine, metronidazole, sulfamethoxazole, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Isavuconazole Evidence L4 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser	*1/*1 *1/*3	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Isavuconazole. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Isavuconazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Liver enzymes; many CYP interactions; QT.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

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Panel

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ANTIFUNGALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Itraconazole Evidence L4 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Itraconazole. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Itraconazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Liver enzymes; many CYP interactions; QT.	May increase response: clarithromycin, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
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ANTIFUNGALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Terbinafine Evidence L4 · Use with Caution	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer	*1/*1 *1/*1 *1/*1 *1/*3	CYP2C9 activity is partly reduced, so Terbinafine may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Terbinafine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Liver enzymes; many CYP interactions; QT.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, grapefruit juice, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Voriconazole Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Voriconazole slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Voriconazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Liver enzymes; many CYP interactions; QT.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

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ANTIFUNGALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Voriconazole (prophylaxis) Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Voriconazole (prophylaxis) slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Voriconazole (prophylaxis) may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Liver enzymes; many CYP interactions; QT.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Posaconazole Evidence L4 · Safe & Efficient	UGT1A4: Normal metabolizer ABCB1: Normal predicted response ABCG2: Normal predicted response	*1/*1 rs1045642 - AA rs2231142 - GG	No pharmacogenomic concerns were identified for Posaconazole from the genes assessed.	Standard dosing of Posaconazole is appropriate on the basis of the genes assessed. Key risks: Liver enzymes; many CYP interactions; QT.	Other factors: Kidney function; Adherence

ANTIMALARIALS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Proguanil Evidence L3 · High Risk	CYP2C19: Poor metabolizer	*2/*3	This patient activates Proguanil poorly through CYP2C19, so it is likely to work less well.	Avoid Proguanil in this patient. Select an alternative agent. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: rifampicin, carbamazepine May decrease response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTIMALARIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Atovaquone/Proguanil Evidence L3 (PharmGKB (CYP2C19 activation)) · Use with Caution	CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer	*2/*3 *1/*1 *1/*3	This patient breaks down Atovaquone/Proguanil slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. CYP2C9 activity is partly reduced, so Atovaquone/Proguanil may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Atovaquone/Proguanil may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, amiodarone, miconazole, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

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Panel

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ANTIMALARIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Quinine Evidence L4 · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer CYP2D6: Normal metabolizer	*1/*1 *2/*3 *1/*1	This patient breaks down Quinine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Quinine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Amodiaquine Evidence L3 · Safe & Efficient	CYP2C8: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Amodiaquine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Amodiaquine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: rifampicin May decrease response: gemfibrozil, clopidogrel, trimethoprim Other factors: Kidney function; Adherence

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ANTIMALARIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Artemether/Lumefantrine Evidence L4 (informative) · Safe & Efficient	CYP2B6: Normal metabolizer CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer CYP2C8: Normal metabolizer	*1/*1 *1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Artemether/Lumefantrine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Artemether/Lumefantrine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, gemfibrozil, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone, trimethoprim May decrease response: rifampicin, efavirenz, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Artesunate Evidence L4 (informative) · Safe & Efficient	UGT2B7: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Artesunate from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Artesunate is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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ANTIMALARIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Chloroquine Evidence L4 (informative) · Safe & Efficient	CYP2C8: Normal metabolizer CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Chloroquine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Chloroquine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, clopidogrel, trimethoprim, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANTIMALARIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Hydroxychloroquine Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C8: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Hydroxychloroquine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Hydroxychloroquine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Hospital: 30M Genomics

Place: —

ANTIMALARIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Lumefantrine Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Lumefantrine from the genes assessed.	Standard dosing of Lumefantrine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Mefloquine Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Mefloquine from the genes assessed.	Standard dosing of Mefloquine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
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Date of Birth: 10/09/1973

Sex at Birth: Male

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ANTIMALARIALS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Primaquine Evidence L1 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Primaquine from the genes assessed.	Standard dosing of Primaquine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Tafenoquine Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tafenoquine from the genes assessed.	Standard dosing of Tafenoquine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Hospital: 30M Genomics

Place: —

ANTIMETABOLITES

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Capecitabine Evidence L1 (CPIC A; EMA) · High Risk	DPYD: Poor metabolizer	rs3918290 - GG / rs55886062 - TG / rs67376798 - AA / rs56038477 - GA / rs75017182 - CC	DPYD activity is absent, so the active form of Capecitabine is not cleared and accumulates. Standard doses carry a high risk of severe, potentially life-threatening toxicity — a substantially reduced dose or an alternative agent is required.	Avoid Capecitabine in this patient. Consider a reduced dose or an alternative regimen. This finding applies to the whole fluoropyrimidine class. A DPYD poor metaboliser cannot clear any fluoropyrimidine — fluorouracil, capecitabine, tegafur and floxuridine are all inactivated by the same enzyme, so substituting one for another does not reduce the risk of severe or fatal toxicity. CPIC advises selecting a non-fluoropyrimidine regimen. The patient should be told to avoid all fluoropyrimidines, including oral capecitabine, and to show this result to any future prescriber. Key risks: Severe mouth ulcers, diarrhoea and low neutrophils — early and severe if DPYD-deficient.	Other factors: Kidney function; Adherence

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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Date Received: 27/08/2026

Source: Buccal swab

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Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTIMETABOLITES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Floxuridine Evidence L2 (PharmGKB (DPYD, fluoropyrimidi ne class)) · High Risk	DPYD: Poor metabolizer	rs3918290 - GG / rs55886062 - TG / rs67376798 - AA / rs56038477 - GA / rs75017182 - CC	DPYD activity is absent, so the active form of Floxuridine is not cleared and accumulates. Standard doses carry a high risk of severe, potentially life-threatening toxicity — a substantially reduced dose or an alternative agent is required.	Avoid Floxuridine in this patient. Select an alternative agent. This finding applies to the whole fluoropyrimidine class. A DPYD poor metaboliser cannot clear any fluoropyrimidine — fluorouracil, capecitabine, tegafur and floxuridine are all inactivated by the same enzyme, so substituting one for another does not reduce the risk of severe or fatal toxicity. CPIC advises selecting a non-fluoropyrimidine regimen. The patient should be told to avoid all fluoropyrimidines, including oral capecitabine, and to show this result to any future prescriber. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Name : Demo B. Example

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Sex at Birth: Male

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Panel

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Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTIMETABOLITES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Fluorouracil Evidence L1 (CPIC A; EMA) · High Risk	DPYD: Poor metabolizer	rs3918290 - GG / rs55886062 - TG / rs67376798 - AA / rs56038477 - GA / rs75017182 - CC	DPYD activity is absent, so the active form of Fluorouracil is not cleared and accumulates. Standard doses carry a high risk of severe, potentially life-threatening toxicity — a substantially reduced dose or an alternative agent is required.	Avoid Fluorouracil in this patient. Consider a reduced dose or an alternative regimen. This finding applies to the whole fluoropyrimidine class. A DPYD poor metaboliser cannot clear any fluoropyrimidine — fluorouracil, capecitabine, tegafur and floxuridine are all inactivated by the same enzyme, so substituting one for another does not reduce the risk of severe or fatal toxicity. CPIC advises selecting a non-fluoropyrimidine regimen. The patient should be told to avoid all fluoropyrimidines, including oral capecitabine, and to show this result to any future prescriber. Key risks: Severe mouth ulcers, diarrhoea and low neutrophils — early and severe if DPYD-deficient.	Other factors: Kidney function; Adherence
Azathioprine Evidence L1 (CPIC A) · Use with Caution	TPMT: Intermediate metabolizer NUDT15: Normal metabolizer	*1/*2 *1/*1	TPMT activity is partly reduced, so the active form of Azathioprine is cleared more slowly and accumulates. CPIC advises starting at 30–80% of the standard dose, with adjustment guided by myelosuppression.	Azathioprine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Full blood count for bone-marrow suppression; liver enzymes.	May increase response: allopurinol or febuxostat (xanthine-oxidase inhibitors sharply raise thiopurine toxicity — cut thiopurine dose ~75% or avoid) Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Date Received: 27/08/2026

Source: Buccal swab

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Referring Doctor:
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Hospital: 30M Genomics

Place: —

ANTIMETABOLITES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Mercaptopurine Evidence L1 (CPIC A) · Use with Caution	TPMT: Intermediate metabolizer NUDT15: Normal metabolizer	*1/*2 *1/*1	TPMT activity is partly reduced, so the active form of Mercaptopurine is cleared more slowly and accumulates. CPIC advises starting at 30–80% of the standard dose, with adjustment guided by myelosuppression.	Mercaptopurine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Full blood count for bone-marrow suppression; liver enzymes.	May increase response: allopurinol or febuxostat (xanthine-oxidase inhibitors sharply raise thiopurine toxicity — cut thiopurine dose ~75% or avoid) Other factors: Kidney function; Adherence
Mercaptopurine (IBD) Evidence L1 (CPIC A) · Use with Caution	TPMT: Intermediate metabolizer NUDT15: Normal metabolizer	*1/*2 *1/*1	TPMT activity is partly reduced, so the active form of Mercaptopurine (IBD) is cleared more slowly and accumulates. CPIC advises starting at 30–80% of the standard dose, with adjustment guided by myelosuppression.	Mercaptopurine (IBD) may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Full blood count for bone-marrow suppression; liver enzymes.	May increase response: allopurinol or febuxostat (xanthine-oxidase inhibitors sharply raise thiopurine toxicity — cut thiopurine dose ~75% or avoid) Other factors: Kidney function; Adherence
Thioguanine Evidence L1 (CPIC A) · Use with Caution	TPMT: Intermediate metabolizer NUDT15: Normal metabolizer	*1/*2 *1/*1	TPMT activity is partly reduced, so the active form of Thioguanine is cleared more slowly and accumulates. CPIC advises starting at 30–80% of the standard dose, with adjustment guided by myelosuppression.	Thioguanine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Full blood count for bone-marrow suppression; liver enzymes.	May increase response: allopurinol or febuxostat (xanthine-oxidase inhibitors sharply raise thiopurine toxicity — cut thiopurine dose ~75% or avoid) Other factors: Kidney function; Adherence
Cytarabine Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Cytarabine from the genes assessed.	Standard dosing of Cytarabine is appropriate on the basis of the genes assessed. Key risks: Full blood count for bone-marrow suppression; liver enzymes.	May increase response: allopurinol or febuxostat (xanthine-oxidase inhibitors sharply raise thiopurine toxicity — cut thiopurine dose ~75% or avoid) Other factors: Kidney function; Adherence

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Patient Information:
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Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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ANTIMETABOLITES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Methotrexate Evidence L2 · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Methotrexate from the genes assessed.	Standard dosing of Methotrexate is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Methotrexate (high-dose) Evidence L3 · Safe & Efficient	SLCO1B1: Normal transporter function ABCB1: Normal predicted response ABCG2: Normal predicted response	*1/*1 rs1045642 - AA rs2231142 - GG	No pharmacogenomic concerns were identified for Methotrexate (high-dose) from the genes assessed.	Standard dosing of Methotrexate (high-dose) is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Tegafur Evidence L1 · Safe & Efficient	DPYD: Normal metabolizer	rs3918290 - GG / rs67376798 - AA	No pharmacogenomic concerns were identified for Tegafur from the genes assessed.	Standard dosing of Tegafur is appropriate on the basis of the genes assessed. Key risks: Severe mouth ulcers, diarrhoea and low neutrophils — early and severe if DPYD-deficient.	Other factors: Kidney function; Adherence

ANTIPLATELETS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Clopidogrel Evidence L1 (CPIC A; FDA BW) · High Risk	CYP2C19: Poor metabolizer	*2/*3	This patient activates Clopidogrel poorly through CYP2C19, so it is likely to work less well.	Avoid Clopidogrel in this patient. Consider prasugrel or ticagrelor (their activation does not depend on CYP2C19). Key risks: Thrombotic events (stent thrombosis, MI) if under-active; bleeding if over-active.	May increase response: rifampicin, carbamazepine May decrease response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole Other factors: Kidney function; Adherence

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ANTIPLATELETS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Prasugrel Evidence L4 (informative) · High Risk	CYP3A4: Normal metabolizer CYP2B6: Normal metabolizer CYP2C9: Intermediate metabolizer CES1: Poor metabolizer	*1/*1 *1/*1 *1/*3 rs2244613 - GT / rs8192935 - GG	CYP2C9 activity is partly reduced, so less Prasugrel is converted to its active form and the response may be diminished. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient activates Prasugrel poorly through CES1, so it is likely to work less well. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Avoid Prasugrel in this patient. Select an alternative agent. Key risks: Thrombotic events (stent thrombosis, MI) if under-active; bleeding if over-active.	May increase response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, efavirenz May decrease response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, ticlopidine, clopidogrel, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Ticlopidine Evidence L3 (PharmGKB) · High Risk	CYP2C19: Poor metabolizer CYP2B6: Normal metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*2/*3 *1/*1 *1/*1 rs1045642 - AA	This patient activates Ticlopidine poorly through CYP2C19, so it is likely to work less well.	Avoid Ticlopidine in this patient. Select an alternative agent. Key risks: Thrombotic events (stent thrombosis, MI) if under-active; bleeding if over-active.	May increase response: rifampicin, carbamazepine, efavirenz May decrease response: fluconazole, fluvoxamine, omeprazole, esomeprazole, voriconazole, clopidogrel, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANTIPLATELETS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Aspirin Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Aspirin may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Aspirin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Thrombotic events (stent thrombosis, MI) if under-active; bleeding if over-active.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Cilostazol Evidence L3 · Use with Caution	CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*2/*3 *1/*1 rs1045642 - AA	This patient breaks down Cilostazol slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Cilostazol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Thrombotic events (stent thrombosis, MI) if under-active; bleeding if over-active.	May increase response: fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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ANTIPLATELETS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ticagrelor Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser SLCO1B1: Normal transporter function UGT2B7: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*3 *1/*1 *1/*1 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Ticagrelor. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Ticagrelor may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Thrombotic events (stent thrombosis, MI) if under-active; bleeding if over-active.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Vorapaxar Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Vorapaxar from the genes assessed.	Standard dosing of Vorapaxar is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

ANTIPSYCHOTICS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Antipsychotics (general) Evidence L3 · Safe & Efficient	MC4R: Normal predicted response CYP2D6: Normal metabolizer	rs489693 - CC *1/*1	No pharmacogenomic concerns were identified for Antipsychotics (general) from the genes assessed.	Standard dosing of Antipsychotics (general) is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Aripiprazole Evidence L2 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Aripiprazole from the genes assessed.	Standard dosing of Aripiprazole is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Aripiprazole lauroxil Evidence L2 (FDA label (actionable)) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Aripiprazole lauroxil from the genes assessed.	Standard dosing of Aripiprazole lauroxil is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Asenapine Evidence L3 · Safe & Efficient	UGT1A4: Normal metabolizer CYP1A2: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Asenapine from the genes assessed.	Standard dosing of Asenapine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: fluvoxamine, ciprofloxacin, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, oral contraceptives, cimetidine, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Brexpiprazole Evidence L2 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Brexpiprazole from the genes assessed.	Standard dosing of Brexpiprazole is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Bromperidol Evidence L4 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Bromperidol from the genes assessed.	Standard dosing of Bromperidol is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Hospital: 30M Genomics

Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Cariprazine Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Cariprazine from the genes assessed.	Standard dosing of Cariprazine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Hospital: 30M Genomics

Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Chlorpromazine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Chlorpromazine from the genes assessed.	Standard dosing of Chlorpromazine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Clozapine Evidence L2 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Clozapine from the genes assessed.	Standard dosing of Clozapine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Hospital: 30M Genomics

Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Flupentixol Evidence L3 (DPWG / PharmGKB) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Flupentixol from the genes assessed.	Standard dosing of Flupentixol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Fluphenazine Evidence L3 (PharmGKB) · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Fluphenazine from the genes assessed.	Standard dosing of Fluphenazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
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Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Haloperidol Evidence L2 (DPWG) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Haloperidol from the genes assessed.	Standard dosing of Haloperidol is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Iloperidone Evidence L2 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Iloperidone from the genes assessed.	Standard dosing of Iloperidone is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Source: Buccal swab

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Hospital: 30M Genomics

Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Levomepromazine Evidence L4 (candidate gene) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Levomepromazine from the genes assessed.	Standard dosing of Levomepromazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Loxapine Evidence L4 (PharmGKB) · Safe & Efficient	CYP1A2: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Loxapine from the genes assessed.	Standard dosing of Loxapine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, oral contraceptives, cimetidine, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Source: Buccal swab

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Hospital: 30M Genomics

Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Lumateperone Evidence L4 (FDA label) · Safe & Efficient	CYP3A4: Normal metabolizer UGT1A1: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Lumateperone from the genes assessed.	Standard dosing of Lumateperone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Lurasidone Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Lurasidone from the genes assessed.	Standard dosing of Lurasidone is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Melperone Evidence L4 (PharmGKB) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Melperone from the genes assessed.	Standard dosing of Melperone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Olanzapine Evidence L3 · Safe & Efficient	CYP1A2: Normal metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response MC4R: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA rs489693 - CC	No pharmacogenomic concerns were identified for Olanzapine from the genes assessed.	Standard dosing of Olanzapine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: fluvoxamine, ciprofloxacin, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, oral contraceptives, cimetidine, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Paliperidone Evidence L2 (DPWG) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Paliperidone from the genes assessed.	Standard dosing of Paliperidone is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Hospital: 30M Genomics

Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Perphenazine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Perphenazine from the genes assessed.	Standard dosing of Perphenazine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozone, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
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Place: —

ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Pimavanserin Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Pimavanserin from the genes assessed.	Standard dosing of Pimavanserin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Pimozide Evidence L1 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Pimozide from the genes assessed.	Standard dosing of Pimozide is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Quetiapine Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer MC4R: Normal predicted response	*1/*1 *1/*1 rs489693 - CC	No pharmacogenomic concerns were identified for Quetiapine from the genes assessed.	Standard dosing of Quetiapine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Risperidone Evidence L2 (DPWG) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Risperidone from the genes assessed.	Standard dosing of Risperidone is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Sertindole Evidence L3 (PharmGKB) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Sertindole from the genes assessed.	Standard dosing of Sertindole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Sulpiride Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Sulpiride from the genes assessed.	Standard dosing of Sulpiride is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Thioridazine Evidence L1 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Thioridazine from the genes assessed.	Standard dosing of Thioridazine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Trifluoperazine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Trifluoperazine from the genes assessed.	Standard dosing of Trifluoperazine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozone, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Ziprasidone Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Ziprasidone from the genes assessed.	Standard dosing of Ziprasidone is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozone, thioridazine).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluvoxamine, ciprofloxacin, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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ANTIPSYCHOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Zotepine Evidence L4 (literature) · Safe & Efficient	CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Zotepine from the genes assessed.	Standard dosing of Zotepine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Zuclopenthixol Evidence L2 (DPWG) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Zuclopenthixol from the genes assessed.	Standard dosing of Zuclopenthixol is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Place: —

ANTIRETROVIRALS (HIV)

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Etravirine Evidence L3 · Use with Caution	CYP2C19: Intermediate metabolizer CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*2 *1/*3 *1/*1 rs1045642 - AA	CYP2C19 activity is partly reduced, so Etravirine may build up at standard doses. Guideline-directed dose adjustment may apply; check the drug-specific recommendation. CYP2C9 activity is partly reduced, so Etravirine may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Etravirine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, omeprazole, esomeprazole, metronidazole, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Nelfinavir Evidence L3 · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Nelfinavir slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Nelfinavir may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

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ANTIRETROVIRALS (HIV) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ritonavir Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser	*1/*1 *1/*3	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Ritonavir. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Ritonavir may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Atazanavir Evidence L1 (CPIC A) · Safe & Efficient	UGT1A1: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Atazanavir from the genes assessed.	Standard dosing of Atazanavir is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Dolutegravir Evidence L3 · Safe & Efficient	UGT1A1: Normal metabolizer CYP3A4: Normal metabolizer ABCG2: Normal predicted response	*1/*1 *1/*1 rs2231142 - GG	No pharmacogenomic concerns were identified for Dolutegravir from the genes assessed.	Standard dosing of Dolutegravir is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANTIRETROVIRALS (HIV) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Efavirenz Evidence L1 (CPIC A) · Safe & Efficient	CYP2B6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Efavirenz from the genes assessed.	Standard dosing of Efavirenz is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Indinavir Evidence L3 · Safe & Efficient	UGT1A1: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Indinavir from the genes assessed.	Standard dosing of Indinavir is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Lopinavir Evidence L3 · Safe & Efficient	SLCO1B1: Normal transporter function CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Lopinavir from the genes assessed.	Standard dosing of Lopinavir is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANTIRETROVIRALS (HIV) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Maraviroc Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Maraviroc from the genes assessed.	Standard dosing of Maraviroc is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Nevirapine Evidence L2 · Safe & Efficient	CYP2B6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Nevirapine from the genes assessed.	Standard dosing of Nevirapine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, voriconazole May decrease response: rifampicin, efavirenz, carbamazepine Other factors: Kidney function; Adherence
Raltegravir Evidence L4 (informative) · Safe & Efficient	UGT1A1: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Raltegravir from the genes assessed.	Standard dosing of Raltegravir is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Tenofovir (TDF) Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Tenofovir (TDF) from the genes assessed.	Standard dosing of Tenofovir (TDF) is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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ANTIRETROVIRALS (HIV) — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Zidovudine (AZT) Evidence L3 · Safe & Efficient	UGT2B7: Normal metabolizer ABCG2: Normal predicted response	*1/*1 rs2231142 - GG	No pharmacogenomic concerns were identified for Zidovudine (AZT) from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Zidovudine (AZT) is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ANXIOLYTICS AND HYPNOTICS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Alprazolam Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Alprazolam. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Alprazolam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Brexanolone Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer	*1/*1 *1/*3	CYP2C9 activity is partly reduced, so Brexanolone may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Brexanolone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Bromazepam Evidence L4 (literature) · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Bromazepam slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Bromazepam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Brotizolam Evidence L4 (literature) · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Brotizolam slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Brotizolam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Chlordiazepoxide Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Chlordiazepoxide slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Chlordiazepoxide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Clorazepate Evidence L4 (literature) · Use with Caution	CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer	*2/*3 *1/*1	This patient breaks down Clorazepate slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Clorazepate may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Diazepam Evidence L2 · Use with Caution	CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer	*2/*3 *1/*1	This patient breaks down Diazepam slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Diazepam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Eszopiclone Evidence L4 (FDA / PharmGKB) · Use with Caution	CYP3A4: Normal metabolizer CYP2C8: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *1/*1 *2/*3	This patient breaks down Eszopiclone slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Eszopiclone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, clopidogrel, trimethoprim, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Flurazepam Evidence L4 (PharmGKB) · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Flurazepam slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Flurazepam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
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Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Melatonin Evidence L4 (informative) · Use with Caution	CYP1A2: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Melatonin slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Melatonin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, fluconazole, ticlopidine, oral contraceptives, cimetidine, esomeprazole, voriconazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Midazolam Evidence L3 (PharmGKB (probe substrate)) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Midazolam. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Midazolam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

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Panel

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Place: —

ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Quazepam Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP2C9 activity is partly reduced, so Quazepam may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Quazepam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, metronidazole, fluvoxamine, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
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Panel

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ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ramelteon Evidence L4 (FDA / PharmGKB) · Use with Caution	CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *1/*3 *1/*1 *2/*3	CYP2C9 activity is partly reduced, so Ramelteon may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Ramelteon slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Ramelteon may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, ticlopidine, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice, esomeprazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital, phenytoin, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
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ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Suvorexant Evidence L4 (literature) · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Suvorexant slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Suvorexant may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Triazolam Evidence L3 (PharmGKB) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Triazolam. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Triazolam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Hospital: 30M Genomics

Place: —

ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Zolpidem Evidence L3 (PharmGKB / DPWG) · Use with Caution	CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer CYP1A2: Normal metabolizer CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer CYP3A5: Intermediate expresser	*1/*1 *1/*3 *1/*1 *1/*1 *2/*3 *1/*3	CYP2C9 activity is partly reduced, so Zolpidem may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Zolpidem slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Zolpidem. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Zolpidem may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, fluvoxamine, ciprofloxacin, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, sulfamethoxazole, oral contraceptives, cimetidine, duloxetine, mirabegron, cinacalcet, abiraterone, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Zopiclone Evidence L4 (PharmGKB) · Use with Caution	CYP3A4: Normal metabolizer CYP2C8: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *1/*1 *2/*3	This patient breaks down Zopiclone slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Zopiclone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, clopidogrel, trimethoprim, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Buspirone Evidence L3 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Buspirone from the genes assessed.	Standard dosing of Buspirone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Date Received: 27/08/2026

Source: Buccal swab

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Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Clonazepam Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer NAT2: Rapid acetylator	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Clonazepam from the genes assessed.	Standard dosing of Clonazepam is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Estazolam Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Estazolam from the genes assessed.	Standard dosing of Estazolam is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Referring Doctor:
Name: Dr Demo Consultant

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Place: —

ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Gepirone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Gepirone from the genes assessed.	Standard dosing of Gepirone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Hydroxyzine Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Hydroxyzine from the genes assessed.	Standard dosing of Hydroxyzine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Panel

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Place: —

ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Lormetazepam Evidence L4 (informative) · Safe & Efficient	UGT2B7: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Lormetazepam from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Lormetazepam is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Nitrazepam Evidence L4 (informative) · Safe & Efficient	NAT2: Rapid acetylator CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Nitrazepam from the genes assessed.	Standard dosing of Nitrazepam is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Phenazepam Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Phenazepam from the genes assessed.	Standard dosing of Phenazepam is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Prochlorperazine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Prochlorperazine from the genes assessed.	Standard dosing of Prochlorperazine is appropriate on the basis of the genes assessed. Key risks: Sedation, movement effects (EPS) and metabolic effects; QT (e.g. pimozide, thioridazine).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Promethazine Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Promethazine from the genes assessed.	Standard dosing of Promethazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Temazepam Evidence L4 (informative) · Safe & Efficient	UGT2B7: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Temazepam from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Temazepam is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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ANXIOLYTICS AND HYPNOTICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Zaleplon Evidence L4 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Zaleplon from the genes assessed.	Standard dosing of Zaleplon is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Zuranolone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Zuranolone from the genes assessed.	Standard dosing of Zuranolone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

BETA BLOCKERS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Propranolol Evidence L3 · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer ADRB1: Typical beta-1 adrenergic response ADRB2: Typical beta-2 adrenergic response	*1/*1 *2/*3 rs1801252 - AA / rs1801253 - GG rs1042713 - GG / rs1042714 - GG	This patient breaks down Propranolol slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Propranolol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Atenolol Evidence L3-L4 · Safe & Efficient	ADRB1: Typical beta-1 adrenergic response	rs1801253 - GG	No pharmacogenomic concerns were identified for Atenolol from the genes assessed.	Standard dosing of Atenolol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Betaxolol Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer ADRB1: Typical beta-1 adrenergic response ADRB2: Typical beta-2 adrenergic response	*1/*1 *1/*1 rs1801252 - AA / rs1801253 - GG rs1042713 - GG / rs1042714 - GG	No pharmacogenomic concerns were identified for Betaxolol from the genes assessed.	Standard dosing of Betaxolol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

BETA BLOCKERS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Bisoprolol Evidence L3-L4 · Safe & Efficient	ADRB1: Typical beta-1 adrenergic response CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer ADRB2: Typical beta-2 adrenergic response	rs1801253 - GG *1/*1 rs1042713 - GG / rs1042714 - GG	No pharmacogenomic concerns were identified for Bisoprolol from the genes assessed.	Standard dosing of Bisoprolol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Bucindolol Evidence L3 · Safe & Efficient	ADRB1: Typical beta-1 adrenergic response	rs1801252 - AA / rs1801253 - GG	No pharmacogenomic concerns were identified for Bucindolol from the genes assessed.	Standard dosing of Bucindolol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Bufuralol Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Bufuralol from the genes assessed.	Standard dosing of Bufuralol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

BETA BLOCKERS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Carvedilol Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer ADRB1: Typical beta-1 adrenergic response ADRB2: Typical beta-2 adrenergic response UGT1A1: Normal metabolizer UGT2B7: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1801252 - AA / rs1801253 - GG rs1042713 - GG / rs1042714 - GG *1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Carvedilol from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Carvedilol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Metoprolol Evidence L2 (DPWG) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Metoprolol from the genes assessed.	Standard dosing of Metoprolol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Nebivolol Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer ADRB1: Typical beta-1 adrenergic response ADRB2: Typical beta-2 adrenergic response	*1/*1 rs1801252 - AA / rs1801253 - GG rs1042713 - GG / rs1042714 - GG	No pharmacogenomic concerns were identified for Nebivolol from the genes assessed.	Standard dosing of Nebivolol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Sotalol Evidence L4 · Safe & Efficient	ADRB1: Typical beta-1 adrenergic response	rs1801253 - GG / rs1801252 - AA	No pharmacogenomic concerns were identified for Sotalol from the genes assessed.	Standard dosing of Sotalol is appropriate on the basis of the genes assessed. Key risks: ECG / QT and drug levels — narrow safety margin.	Other factors: Kidney function; Adherence
Talinolol Evidence L3 · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Talinolol from the genes assessed.	Standard dosing of Talinolol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Place: —

BETA BLOCKERS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Timolol Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer ADRB1: Typical beta-1 adrenergic response ADRB2: Typical beta-2 adrenergic response	*1/*1 rs1801252 - AA / rs1801253 - GG rs1042713 - GG / rs1042714 - GG	No pharmacogenomic concerns were identified for Timolol from the genes assessed.	Standard dosing of Timolol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

BIOLOGICS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Apremilast Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Apremilast from the genes assessed.	Standard dosing of Apremilast is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluvoxamine, ciprofloxacin, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Hospital: 30M Genomics

Place: —

BIOLOGICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Berotrastat Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Berotrastat from the genes assessed.	Standard dosing of Berotrastat is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Deucravacitinib Evidence L4 (informative) · Safe & Efficient	CYP1A2: Normal metabolizer CYP2B6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Deucravacitinib from the genes assessed.	Standard dosing of Deucravacitinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, ticlopidine, clopidogrel, oral contraceptives, cimetidine, voriconazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, efavirenz Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

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Referring Doctor:
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Place: —

CALCIUM CHANNEL BLOCKERS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Amlodipine Evidence L3 (PharmGKB) · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*3 *1/*1 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Amlodipine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Amlodipine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Diltiazem Evidence L3 (PharmGKB) · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*1/*3 *1/*1 *1/*1 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Diltiazem. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Diltiazem may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Enzyme interaction (perpetrator); Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Referring Doctor:
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Hospital: 30M Genomics

Place: —

CALCIUM CHANNEL BLOCKERS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Felodipine Evidence L3 (PharmGKB) · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Felodipine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Felodipine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Nicardipine Evidence L3 (PharmGKB) · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Nicardipine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Nicardipine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

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Referring Doctor:
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Hospital: 30M Genomics

Place: —

CALCIUM CHANNEL BLOCKERS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Nifedipine Evidence L3 · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Nifedipine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Nifedipine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Nimodipine Evidence L3 · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Nimodipine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Nimodipine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243

Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Source: Buccal swab

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Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

CALCIUM CHANNEL BLOCKERS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Nisoldipine Evidence L3 (PharmGKB) · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Nisoldipine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Nisoldipine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Nitrendipine Evidence L3 · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Nitrendipine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Nitrendipine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Hospital: 30M Genomics

Place: —

CALCIUM CHANNEL BLOCKERS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Verapamil Evidence L3 (PharmGKB) · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer ABCB1: Normal predicted response CYP2C8: Normal metabolizer	*1/*3 *1/*1 rs1045642 - AA *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Verapamil. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Verapamil may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, erythromycin, diltiazem, fluconazole, grapefruit juice, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Enzyme interaction (perpetrator); Adherence

CORTICOSTEROIDS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dexamethasone Evidence L4 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Dexamethasone. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Dexamethasone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

CORTICOSTEROIDS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Methylprednisolone Evidence L4 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Methylprednisolone. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Methylprednisolone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Deflazacort Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Deflazacort from the genes assessed.	Standard dosing of Deflazacort is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

CORTICOSTEROIDS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Hydrocortisone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Hydrocortisone from the genes assessed.	Standard dosing of Hydrocortisone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Prednisolone Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Prednisolone from the genes assessed.	Standard dosing of Prednisolone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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CORTICOSTEROIDS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Prednisone Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Prednisone from the genes assessed.	Standard dosing of Prednisone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Triamcinolone Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Triamcinolone from the genes assessed.	Standard dosing of Triamcinolone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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CYTOTOXIC CHEMOTHERAPY

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Cyclophosphamide Evidence L3 · High Risk	CYP2B6: Normal metabolizer CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer GSTP1: Normal predicted response ABCB1: Normal predicted response	*1/*1 *2/*3 *1/*1 *1/*3 rs1695 - AA rs1045642 - AA	This patient activates Cyclophosphamide poorly through CYP2C19, so it is likely to work less well. CYP2C9 activity is partly reduced, so less Cyclophosphamide is converted to its active form and the response may be diminished. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Avoid Cyclophosphamide in this patient. Select an alternative agent. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: rifampicin, efavirenz, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin May decrease response: ticlopidine, clopidogrel, voriconazole, fluconazole, fluvoxamine, omeprazole, esomeprazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, posaconazole, erythromycin, diltiazem, verapamil, grapefruit juice, amiodarone, miconazole, metronidazole, sulfamethoxazole Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Cisplatin Evidence L4 (informative) · Use with Caution	COMT: Altered predicted response, one variant allele present ERCC1: Normal predicted response GSTP1: Normal predicted response	rs4680 - GA rs11615 - AA rs1695 - AA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Cisplatin.	Cisplatin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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CYTOTOXIC CHEMOTHERAPY — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Docetaxel Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Docetaxel. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Docetaxel may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Etoposide Evidence L4 (informative) · Use with Caution	UGT1A1: Normal metabolizer CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response SLCO1B1: Normal transporter function	*1/*1 *1/*1 *1/*3 rs1045642 - AA *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Etoposide. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Etoposide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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CYTOTOXIC CHEMOTHERAPY — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ifosfamide Evidence L4 · Use with Caution	CYP2B6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer GSTP1: Normal predicted response	*1/*1 *1/*1 *1/*3 rs1695 - AA	CYP2C9 activity is partly reduced, so Ifosfamide may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Ifosfamide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, efavirenz, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Paclitaxel Evidence L3 (PharmGKB (CYP2C8; neuropathy candidates)) · Use with Caution	CYP2C8: Normal metabolizer CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Paclitaxel. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Paclitaxel may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, clopidogrel, trimethoprim, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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CYTOTOXIC CHEMOTHERAPY — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Vincristine Evidence L2 · Use with Caution	CYP3A5: Intermediate expresser	*1/*3	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Vincristine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Vincristine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Bleomycin Evidence L4 (informative) · Safe & Efficient	GSTP1: Normal predicted response	rs1695 - AA	No pharmacogenomic concerns were identified for Bleomycin from the genes assessed.	Standard dosing of Bleomycin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Busulfan Evidence L4 (informative) · Safe & Efficient	GSTP1: Normal predicted response	rs1695 - AA	No pharmacogenomic concerns were identified for Busulfan from the genes assessed.	Standard dosing of Busulfan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Carboplatin Evidence L3 · Safe & Efficient	GSTP1: Normal predicted response ERCC1: Normal predicted response	rs1695 - AA rs11615 - AA	No pharmacogenomic concerns were identified for Carboplatin from the genes assessed.	Standard dosing of Carboplatin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Date of Birth: 10/09/1973

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Panel

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CYTOTOXIC CHEMOTHERAPY — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dacarbazine Evidence L4 (informative) · Safe & Efficient	CYP1A2: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Dacarbazine from the genes assessed.	Standard dosing of Dacarbazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Daunorubicin Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Daunorubicin from the genes assessed.	Standard dosing of Daunorubicin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Doxorubicin Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Doxorubicin from the genes assessed.	Standard dosing of Doxorubicin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Epirubicin Evidence L4 (informative) · Safe & Efficient	UGT2B7: Normal metabolizer SLCO1B1: Normal transporter function ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Epirubicin from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Epirubicin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Irinotecan Evidence L1 (CPIC A; FDA) · Safe & Efficient	UGT1A1: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Irinotecan from the genes assessed.	Standard dosing of Irinotecan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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CYTOTOXIC CHEMOTHERAPY — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Mitomycin Evidence L4 (informative) · Safe & Efficient	GSTP1: Normal predicted response	rs1695 - AA	No pharmacogenomic concerns were identified for Mitomycin from the genes assessed.	Standard dosing of Mitomycin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Mitoxantrone Evidence L4 (informative) · Safe & Efficient	ABCG2: Normal predicted response ABCB1: Normal predicted response SLCO1B1: Normal transporter function	rs2231142 - GG rs1045642 - AA *1/*1	No pharmacogenomic concerns were identified for Mitoxantrone from the genes assessed.	Standard dosing of Mitoxantrone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Oxaliplatin Evidence L4 (informative) · Safe & Efficient	GSTP1: Normal predicted response ERCC1: Normal predicted response	rs1695 - AA rs11615 - AA	No pharmacogenomic concerns were identified for Oxaliplatin from the genes assessed.	Standard dosing of Oxaliplatin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Procarbazine Evidence L4 (informative) · Safe & Efficient	CYP2B6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Procarbazine from the genes assessed.	Standard dosing of Procarbazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, voriconazole May decrease response: rifampicin, efavirenz, carbamazepine Other factors: Kidney function; Adherence
Topotecan Evidence L4 (informative) · Safe & Efficient	ABCG2: Normal predicted response ABCB1: Normal predicted response UGT1A1: Normal metabolizer	rs2231142 - GG rs1045642 - AA *1/*1	No pharmacogenomic concerns were identified for Topotecan from the genes assessed.	Standard dosing of Topotecan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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DEPENDENCE AND WITHDRAWAL AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Naltrexone Evidence L4 · Use with Caution	OPRM1: Normal predicted response COMT: Altered predicted response, one variant allele present	rs1799971 - AA rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Naltrexone.	Naltrexone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	Other factors: Kidney function; Adherence
Nicotine (NRT) Evidence L4 (informative) · Use with Caution	CYP2B6: Normal metabolizer COMT: Altered predicted response, one variant allele present	*1/*1 rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Nicotine (NRT).	Nicotine (NRT) may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, voriconazole May decrease response: rifampicin, efavirenz, carbamazepine Other factors: Kidney function; Adherence
Disulfiram Evidence L3 (PharmGKB) · Safe & Efficient	ALDH2: Normal predicted response	*1/*1	No pharmacogenomic concerns were identified for Disulfiram from the genes assessed.	Standard dosing of Disulfiram is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Nalmefene Evidence L4 (candidate gene) · Safe & Efficient	OPRM1: Normal predicted response	rs1799971 - AA	No pharmacogenomic concerns were identified for Nalmefene from the genes assessed.	Standard dosing of Nalmefene is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Place: —

DERMATOLOGICAL AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Isotretinoin Evidence L4 (informative) · Use with Caution	CYP2C8: Normal metabolizer CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer CYP2B6: Normal metabolizer	*1/*1 *1/*3 *1/*1 *1/*1	CYP2C9 activity is partly reduced, so Isotretinoin may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Isotretinoin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, ticlopidine, clopidogrel, trimethoprim, metronidazole, fluvoxamine, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin, efavirenz Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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DERMATOLOGICAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Acitretin Evidence L4 (informative) · Safe & Efficient	CYP2C8: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Acitretin from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Acitretin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, clopidogrel, trimethoprim, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Dutasteride Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Dutasteride from the genes assessed.	Standard dosing of Dutasteride is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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DERMATOLOGICAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Finasteride Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Finasteride from the genes assessed.	Standard dosing of Finasteride is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

DISEASE-MODIFYING ANTIRHEUMATICS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Leflunomide Evidence L2 · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Leflunomide slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Leflunomide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Lesinurad Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer ABCG2: Normal predicted response	*1/*3 rs2231142 - GG	CYP2C9 activity is partly reduced, so Lesinurad may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Lesinurad may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

DISEASE-MODIFYING ANTIRHEUMATICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Sulfasalazine Evidence L3 · Use with Caution	NAT2: Rapid acetylator TPMT: Intermediate metabolizer ABCG2: Normal predicted response	*1/*1 *1/*2 rs2231142 - GG	TPMT activity is partly reduced, so Sulfasalazine may build up at standard doses. CPIC advises starting at 30–80% of the standard dose, with adjustment guided by myelosuppression.	Sulfasalazine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Sulfinpyrazone Evidence L4 · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Sulfinpyrazone may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Sulfinpyrazone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Colchicine Evidence L3 · Safe & Efficient	ABCB1: Normal predicted response CYP3A4: Normal metabolizer SLCO1B1: Normal transporter function	rs1045642 - AA *1/*1 *1/*1	No pharmacogenomic concerns were identified for Colchicine from the genes assessed.	Standard dosing of Colchicine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Place: —

DIURETICS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Torsemide Evidence L3 (PharmGKB) · Use with Caution	CYP2C9: Intermediate metabolizer SLCO1B1: Normal transporter function	*1/*3 *1/*1	CYP2C9 activity is partly reduced, so Torsemide may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Torsemide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Furosemide Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response SLCO1B1: Normal transporter function	rs1045642 - AA *1/*1	No pharmacogenomic concerns were identified for Furosemide from the genes assessed.	Standard dosing of Furosemide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Hydrochlorothiazide Evidence L4 (informative) · Safe & Efficient	ACE: Normal predicted response	rs4646994 - I/I	No pharmacogenomic concerns were identified for Hydrochlorothiazide from the genes assessed.	Standard dosing of Hydrochlorothiazide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Panel

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ENDOCRINE THERAPIES

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Abiraterone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Abiraterone from the genes assessed.	Standard dosing of Abiraterone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Anastrozole Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Anastrozole from the genes assessed.	Standard dosing of Anastrozole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Endoxifen Evidence L4 (informative — no genotype-directed action) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Endoxifen from the genes assessed.	Standard dosing of Endoxifen is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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ENDOCRINE THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Exemestane Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Exemestane from the genes assessed.	Standard dosing of Exemestane is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Flutamide Evidence L3 · Safe & Efficient	CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer NAT2: Rapid acetylator	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Flutamide from the genes assessed.	Standard dosing of Flutamide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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ENDOCRINE THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Letrozole Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Letrozole from the genes assessed.	Standard dosing of Letrozole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Raloxifene Evidence L4 (informative) · Safe & Efficient	UGT1A1: Normal metabolizer SULT1A1: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 rs1042028 - CC *1/*1	No pharmacogenomic concerns were identified for Raloxifene from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Raloxifene is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Tamoxifen Evidence L1 (CPIC A) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tamoxifen from the genes assessed.	Standard dosing of Tamoxifen is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May decrease response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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GASTROINTESTINAL AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Alosetron Evidence L4 (informative) · Use with Caution	CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*3 *1/*1	CYP2C9 activity is partly reduced, so Alosetron may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Alosetron may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital, phenytoin, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Domperidone Evidence L2 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Domperidone from the genes assessed.	Standard dosing of Domperidone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Eluxadoline Evidence L2 (FDA label (SLCO1B1)) · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Eluxadoline from the genes assessed.	Standard dosing of Eluxadoline is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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GASTROINTESTINAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Loperamide Evidence L4 · Safe & Efficient	ABCB1: Normal predicted response CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	rs1045642 - AA *1/*1 *1/*1	No pharmacogenomic concerns were identified for Loperamide from the genes assessed.	Standard dosing of Loperamide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Mesalamine Evidence L4 (informative) · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Mesalamine from the genes assessed.	Standard dosing of Mesalamine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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GASTROINTESTINAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Metoclopramide Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Metoclopramide from the genes assessed.	Standard dosing of Metoclopramide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluvoxamine, ciprofloxacin, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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HAEMATOLOGICAL AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Avatrombopag Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP2C9 activity is partly reduced, so Avatrombopag may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Avatrombopag may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, metronidazole, fluvoxamine, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Daprodustat Evidence L4 (informative) · Safe & Efficient	CYP2C8: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Daprodustat from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Daprodustat is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, clopidogrel, trimethoprim, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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HAEMATOLOGICAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Eltrombopag Evidence L2 (PharmGKB (UGT1A1/SLCO1B1)) · Safe & Efficient	UGT1A1: Normal metabolizer SLCO1B1: Normal transporter function	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Eltrombopag from the genes assessed.	Standard dosing of Eltrombopag is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Iptacopan Evidence L4 (informative) · Safe & Efficient	CYP2C8: Normal metabolizer UGT1A1: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Iptacopan from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Iptacopan is appropriate on the basis of the genes assessed. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	May increase response: gemfibrozil, clopidogrel, trimethoprim May decrease response: rifampicin Other factors: Kidney function; Adherence
Roxadustat Evidence L4 (informative) · Safe & Efficient	CYP2C8: Normal metabolizer SLCO1B1: Normal transporter function ABCG2: Normal predicted response	*1/*1 *1/*1 rs2231142 - GG	No pharmacogenomic concerns were identified for Roxadustat from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Roxadustat is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clopidogrel, trimethoprim May decrease response: rifampicin Other factors: Kidney function; Adherence
Vadadustat Evidence L4 (informative) · Safe & Efficient	UGT1A1: Normal metabolizer CYP2C8: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Vadadustat from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Vadadustat is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clopidogrel, trimethoprim May decrease response: rifampicin Other factors: Kidney function; Adherence

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Sex at Birth: Male

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Panel

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IMMUNOSUPPRESSANTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ciclosporin Evidence L3 · Use with Caution	CYP3A5: Intermediate expresser	*1/*3	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Ciclosporin. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Ciclosporin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice; Grapefruit juice Other factors: Kidney function; Adherence
Tacrolimus Evidence L1 (CPIC A) · Use with Caution	CYP3A5: Intermediate expresser	*1/*3	CYP3A5 is expressed at intermediate level (*1/*3), so tacrolimus clearance is increased. CPIC advises a starting dose 1.5–2 times standard, with therapeutic drug monitoring.	Tacrolimus may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice; Grapefruit juice Other factors: Kidney function; Adherence

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IMMUNOSUPPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Voclosporin Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Voclosporin. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Voclosporin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice; Grapefruit juice Other factors: Kidney function; Adherence
Mycophenolate mofetil Evidence L4 (informative) · Safe & Efficient	UGT2B7: Normal metabolizer SLCO1B1: Normal transporter function	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Mycophenolate mofetil from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Mycophenolate mofetil is appropriate on the basis of the genes assessed. Key risks: Full blood count for bone-marrow suppression; liver enzymes.	May increase response: allopurinol or febuxostat (xanthine-oxidase inhibitors sharply raise thiopurine toxicity — cut thiopurine dose ~75% or avoid) Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

IMMUNOSUPPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Sirolimus Evidence L2 · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Sirolimus from the genes assessed.	Standard dosing of Sirolimus is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice; Grapefruit juice Other factors: Kidney function; Adherence

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Place: —

MIGRAINE AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Rimegepant Evidence L4 (FDA label) · Use with Caution	CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer	*1/*1 *1/*3	CYP2C9 activity is partly reduced, so Rimegepant may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Rimegepant may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Almotriptan Evidence L3 (PharmGKB) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Almotriptan from the genes assessed.	Standard dosing of Almotriptan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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MIGRAINE AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Atogepant Evidence L4 (FDA label) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Atogepant from the genes assessed.	Standard dosing of Atogepant is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Dihydroergotamine Evidence L3 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Dihydroergotamine from the genes assessed.	Standard dosing of Dihydroergotamine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
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MIGRAINE AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Eletriptan Evidence L3 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Eletriptan from the genes assessed.	Standard dosing of Eletriptan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Ergotamine Evidence L3 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Ergotamine from the genes assessed.	Standard dosing of Ergotamine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Flunarizine Evidence L3 (PharmGKB) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Flunarizine from the genes assessed.	Standard dosing of Flunarizine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Panel

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MIGRAINE AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Frovatriptan Evidence L4 (candidate gene) · Safe & Efficient	CYP1A2: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Frovatriptan from the genes assessed.	Standard dosing of Frovatriptan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Ubrogepant Evidence L4 (FDA label) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Ubrogepant from the genes assessed.	Standard dosing of Ubrogepant is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Zolmitriptan Evidence L3 (PharmGKB) · Safe & Efficient	CYP1A2: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Zolmitriptan from the genes assessed.	Standard dosing of Zolmitriptan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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Patient Information:
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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

NEUROIMMUNOLOGY AND NEURODEGENERATION

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Fingolimod Evidence L4 (candidate gene) · Use with Caution	CYP4F2: Intermediate metabolizer ABCB1: Normal predicted response	*1/*3 rs1045642 - AA	CYP4F2 activity is partly reduced, so Fingolimod may build up at standard doses. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Fingolimod may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Siponimod Evidence L1 (FDA) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Siponimod may build up at standard doses. The FDA label sets a genotype-specific maintenance dose; confirm the dose for this genotype before starting.	Siponimod may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Ozanimod Evidence L4 (FDA / PharmGKB) · Safe & Efficient	CYP2C8: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Ozanimod from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Ozanimod is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, clopidogrel, trimethoprim, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Panel

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NEUROIMMUNOLOGY AND NEURODEGENERATION — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ponesimod Evidence L4 (literature) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Ponesimod from the genes assessed.	Standard dosing of Ponesimod is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Riluzole Evidence L3 (PharmGKB (informative)) · Safe & Efficient	CYP1A2: Normal metabolizer ABCG2: Normal predicted response	*1/*1 rs2231142 - GG	No pharmacogenomic concerns were identified for Riluzole from the genes assessed.	Standard dosing of Riluzole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

NEUROIMMUNOLOGY AND NEURODEGENERATION — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Risdiplam Evidence L4 (informative) · Safe & Efficient	CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Risdiplam from the genes assessed.	Standard dosing of Risdiplam is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Teriflunomide Evidence L3 (PharmGKB) · Safe & Efficient	ABCG2: Normal predicted response CYP1A2: Normal metabolizer	rs2231142 - GG *1/*1	No pharmacogenomic concerns were identified for Teriflunomide from the genes assessed.	Standard dosing of Teriflunomide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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NSAIDS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Celecoxib Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Celecoxib may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Celecoxib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Diclofenac Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer CYP2C8: Normal metabolizer UGT2B7: Normal metabolizer	*1/*3 *1/*1 *1/*1	CYP2C9 activity is partly reduced, so Diclofenac may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Diclofenac may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, gemfibrozil, metronidazole, fluvoxamine, sulfamethoxazole, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Diffunisal Evidence L3 (PharmGKB (CYP2C9)) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Diffunisal may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Diffunisal may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

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NSAIDS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Flurbiprofen Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Flurbiprofen may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Flurbiprofen may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Ibuprofen Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Ibuprofen may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Ibuprofen may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Indomethacin Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer CYP2C19: Poor metabolizer UGT2B7: Normal metabolizer	*1/*3 *2/*3 *1/*1	CYP2C9 activity is partly reduced, so Indomethacin may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Indomethacin slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Indomethacin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, fluvoxamine, ticlopidine, metronidazole, sulfamethoxazole, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

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Place: —

NSAIDS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ketoprofen Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Ketoprofen may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Ketoprofen may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Ketorolac Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Ketorolac may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Ketorolac may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Lornoxicam Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Lornoxicam may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Lornoxicam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

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NSAIDS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Mefenamic acid Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Mefenamic acid may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Mefenamic acid may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Meloxicam Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Meloxicam may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Meloxicam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Naproxen Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer CYP1A2: Normal metabolizer CYP2C8: Normal metabolizer UGT2B7: Normal metabolizer	*1/*3 *1/*1 *1/*1 *1/*1	CYP2C9 activity is partly reduced, so Naproxen may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Naproxen may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, fluvoxamine, ciprofloxacin, gemfibrozil, metronidazole, sulfamethoxazole, oral contraceptives, cimetidine, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenobarbital, tobacco smoke, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

NSAIDS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Piroxicam Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Piroxicam may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Piroxicam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Tenoxicam Evidence L1 (CPIC A) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Tenoxicam may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Tenoxicam may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Finerenone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2C8: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Finerenone from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Finerenone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

NSAIDS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Rofecoxib Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Rofecoxib from the genes assessed.	Standard dosing of Rofecoxib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

OPHTHALMIC AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Brimonidine Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Brimonidine from the genes assessed.	Standard dosing of Brimonidine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Latanoprost Evidence L4 (informative) · Safe & Efficient	ADRB2: Typical beta-2 adrenergic response	rs1042713 - GG / rs1042714 - GG	No pharmacogenomic concerns were identified for Latanoprost from the genes assessed.	Standard dosing of Latanoprost is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Patient Information:
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Sex at Birth: Male

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Panel

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Place: —

OPHTHALMIC AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Travoprost Evidence L4 (informative) · Safe & Efficient	OPRM1: Normal predicted response	rs1799971 - AA	No pharmacogenomic concerns were identified for Travoprost from the genes assessed.	Standard dosing of Travoprost is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

OPIOID ANALGESICS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Alfentanil Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser OPRM1: Normal predicted response ABCB1: Normal predicted response	*1/*1 *1/*3 rs1799971 - AA rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Alfentanil. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Alfentanil may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Buprenorphine Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer OPRM1: Normal predicted response CYP2B6: Normal metabolizer CYP2D6: Normal metabolizer CYP2C8: Normal metabolizer COMT: Altered predicted response, one variant allele present	*1/*1 rs1799971 - AA *1/*1 *1/*1 *1/*1 rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Buprenorphine. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Buprenorphine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, ticlopidine, clopidogrel, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, gemfibrozil, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone, trimethoprim May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, efavirenz Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Fentanyl Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser OPRM1: Normal predicted response ABCB1: Normal predicted response COMT: Altered predicted response, one variant allele present	*1/*1 *1/*3 rs1799971 - AA rs1045642 - AA rs4680 - GA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Fentanyl. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect. COMT indicates altered predicted response, one variant allele present, which can alter the response to Fentanyl.	Fentanyl may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Source: Buccal swab

Result Date: 31/08/2026

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Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Meperidine Evidence L4 (informative) · Use with Caution	CYP2B6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer OPRM1: Normal predicted response	*1/*1 *1/*1 *2/*3 rs1799971 - AA	This patient breaks down Meperidine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Meperidine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, efavirenz, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Morphine Evidence L2 · Use with Caution	COMT: Altered predicted response, one variant allele present	rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Morphine.	Morphine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	Other factors: Kidney function; Adherence

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Patient Information:
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Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Opioids (general) Evidence L3 · Use with Caution	COMT: Altered predicted response, one variant allele present	rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Opioids (general).	Opioids (general) may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	Other factors: Kidney function; Adherence
Sufentanil Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser OPRM1: Normal predicted response	*1/*1 *1/*3 rs1799971 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Sufentanil. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Sufentanil may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Tapentadol Evidence L4 · Use with Caution	UGT2B7: Normal metabolizer CYP2D6: Normal metabolizer CYP2C9: Intermediate metabolizer OPRM1: Normal predicted response	*1/*1 *1/*1 *1/*3 rs1799971 - AA	CYP2C9 activity is partly reduced, so Tapentadol may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Tapentadol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, amiodarone, miconazole, duloxetine, mirabegron, cinacalcet, abiraterone, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Buprenorphine / naloxone Evidence L4 · Safe & Efficient	OPRM1: Normal predicted response CYP3A4: Normal metabolizer	rs1799971 - AA *1/*1	No pharmacogenomic concerns were identified for Buprenorphine / naloxone from the genes assessed.	Standard dosing of Buprenorphine / naloxone is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Butorphanol Evidence L4 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Butorphanol from the genes assessed.	Standard dosing of Butorphanol is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Patient Information:
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Test Name: Comprehensive (All Drugs)
Panel

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OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Codeine Evidence L1 (CPIC A; FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Codeine from the genes assessed.	Standard dosing of Codeine is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May decrease response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Codeine (antitussive) Evidence L1 (CPIC A) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Codeine (antitussive) from the genes assessed.	Standard dosing of Codeine (antitussive) is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Codeine (post-partum) Evidence L1 (CPIC A; FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Codeine (post-partum) from the genes assessed.	Standard dosing of Codeine (post-partum) is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dextropropoxyphene Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Dextropropoxyphene from the genes assessed.	Standard dosing of Dextropropoxyphene is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Dihydrocodeine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer UGT2B7: Normal metabolizer OPRM1: Normal predicted response	*1/*1 *1/*1 rs1799971 - AA	No pharmacogenomic concerns were identified for Dihydrocodeine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Dihydrocodeine is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May decrease response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Ethylmorphine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Ethylmorphine from the genes assessed.	Standard dosing of Ethylmorphine is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May decrease response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Heroin (diamorphine) Evidence L4 · Safe & Efficient	OPRM1: Normal predicted response UGT2B7: Normal metabolizer	rs1799971 - AA *1/*1	No pharmacogenomic concerns were identified for Heroin (diamorphine) from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Heroin (diamorphine) is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	Other factors: Kidney function; Adherence
Hydrocodone Evidence L2 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Hydrocodone from the genes assessed.	Standard dosing of Hydrocodone is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May decrease response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Hydromorphone Evidence L4 · Safe & Efficient	UGT2B7: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Hydromorphone from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Hydromorphone is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	Other factors: Kidney function; Adherence
Methadone Evidence L2 · Safe & Efficient	CYP2B6: Normal metabolizer CYP2D6: Normal metabolizer OPRM1: Normal predicted response	*1/*1 *1/*1 rs1799971 - AA	No pharmacogenomic concerns were identified for Methadone from the genes assessed.	Standard dosing of Methadone is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May increase response: ticlopidine, clopidogrel, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, voriconazole, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, efavirenz, carbamazepine Other factors: Kidney function; Adherence

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OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Oliceridine Evidence L2 (FDA label (CYP2D6/CYP3A4)) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Oliceridine from the genes assessed.	Standard dosing of Oliceridine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Oxycodone Evidence L2 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Oxycodone from the genes assessed.	Standard dosing of Oxycodone is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May decrease response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Oxymorphone Evidence L4 · Safe & Efficient	UGT2B7: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Oxymorphone from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Oxymorphone is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Source: Buccal swab

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Referring Doctor:
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Place: —

OPIOID ANALGESICS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Remifentanyl Evidence L4 · Safe & Efficient	OPRM1: Normal predicted response	rs1799971 - AA	No pharmacogenomic concerns were identified for Remifentanyl from the genes assessed.	Standard dosing of Remifentanyl is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	Other factors: Kidney function; Adherence
Tramadol Evidence L1 (CPIC A) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tramadol from the genes assessed.	Standard dosing of Tramadol is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	May decrease response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

OTHER

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Bortezomib Evidence L4 (informative) · Use with Caution	ABCB1: Normal predicted response CYP2C19: Poor metabolizer	rs1045642 - AA *2/*3	This patient breaks down Bortezomib slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Bortezomib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Candesartan Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer ACE: Normal predicted response	*1/*3 rs4646994 - I/I	CYP2C9 activity is partly reduced, so Candesartan may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Candesartan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Carisoprodol Evidence L2 (FDA label (CYP2C19)) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Carisoprodol slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Carisoprodol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Diphenhydramine Evidence L4 (informative) · Use with Caution	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer	*1/*1 *1/*1 *1/*3	CYP2C9 activity is partly reduced, so Diphenhydramine may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Diphenhydramine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Irbesartan Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Irbesartan may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Irbesartan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Loratadine Evidence L4 (informative) · Use with Caution	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *1/*1 *2/*3	This patient breaks down Loratadine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Loratadine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Losartan Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer UGT1A1: Normal metabolizer UGT2B7: Normal metabolizer ABCB1: Normal predicted response	*1/*3 *1/*1 *1/*1 *1/*1 rs1045642 - AA	CYP2C9 activity is partly reduced, so less Losartan is converted to its active form and the response may be diminished. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Losartan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin May decrease response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, grapefruit juice Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Nitroglycerin Evidence L3 · Use with Caution	ALDH2: Normal predicted response NOS3: Altered predicted response, one variant allele present	*1/*1 rs1799983 - TG / rs2070744 - CC	NOS3 indicates altered predicted response, one variant allele present, which can alter the response to Nitroglycerin.	Nitroglycerin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Oseltamivir Evidence L3 · Use with Caution	CES1: Intermediate metabolizer	rs71647871 - GA	CES1 activity is partly reduced, so less Oseltamivir is converted to its active form and the response may be diminished. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Oseltamivir may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Telmisartan Evidence L4 (informative) · Use with Caution	ABCB1: Normal predicted response CYP2C9: Intermediate metabolizer SLCO1B1: Normal transporter function	rs1045642 - AA *1/*3 *1/*1	CYP2C9 activity is partly reduced, so Telmisartan may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Telmisartan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Tolperisone Evidence L3 (literature (PK)) · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer CYP1A2: Normal metabolizer	*1/*1 *2/*3 *1/*1	This patient breaks down Tolperisone slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Tolperisone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, ciprofloxacin, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, tobacco smoke Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Valsartan Evidence L4 (PharmGKB; informational) · Use with Caution	SLCO1B1: Normal transporter function CYP2C9: Intermediate metabolizer	*1/*1 *1/*3	CYP2C9 activity is partly reduced, so Valsartan may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Valsartan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

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Place: —

OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Belinostat Evidence L2 (FDA) · Safe & Efficient	UGT1A1: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Belinostat from the genes assessed.	Standard dosing of Belinostat is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Bisphosphonates (class) Evidence L4 (informative) · Safe & Efficient	CYP2C8: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Bisphosphonates (class) from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Bisphosphonates (class) is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clopidogrel, trimethoprim May decrease response: rifampicin Other factors: Kidney function; Adherence
Chlorpheniramine Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Chlorpheniramine from the genes assessed.	Standard dosing of Chlorpheniramine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
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Sex at Birth: Male

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Cyclobenzaprine Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Cyclobenzaprine from the genes assessed.	Standard dosing of Cyclobenzaprine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Dapsone Evidence L4 (informative) · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Dapsone from the genes assessed.	Standard dosing of Dapsone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Desloratadine Evidence L3 (PharmGKB (CYP2D6)) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Desloratadine from the genes assessed.	Standard dosing of Desloratadine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Dextromethorphan Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Dextromethorphan from the genes assessed.	Standard dosing of Dextromethorphan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Dipyrrone (metamizole) Evidence L4 · Safe & Efficient	—	NA	No validated pharmacogenetic marker is currently established for Dipyrrone (metamizole); the recommendation reflects standard, guideline-based prescribing.	Standard dosing of Dipyrrone (metamizole) is appropriate on the basis of the genes assessed. Key risks: Drowsiness and slowed breathing (over-activation); inadequate pain relief (under-activation).	Other factors: Kidney function; Adherence

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Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Donepezil Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer CYP2C8: Normal metabolizer BCHE: Normal metabolizer	*1/*1 *1/*1 *1/*1 rs1799807 - AA / rs1803274 - GG	No pharmacogenomic concerns were identified for Donepezil from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Donepezil is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Fexofenadine Evidence L3 · Safe & Efficient	SLCO1B1: Normal transporter function ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Fexofenadine from the genes assessed.	Standard dosing of Fexofenadine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Fluindione Evidence L2 · Safe & Efficient	VKORC1: Normal warfarin sensitivity	rs9923231 - CC	No pharmacogenomic concerns were identified for Fluindione from the genes assessed.	Standard dosing of Fluindione is appropriate on the basis of the genes assessed. Key risks: Bleeding — bruising, blood in urine/stool, prolonged bleeding; INR for warfarin.	May increase response: NSAIDs and antiplatelet drugs (additive bleeding), azole antifungals & amiodarone (raise warfarin effect) Other factors: Kidney function; Adherence

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Panel

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Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Galantamine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer BCHE: Normal metabolizer	*1/*1 *1/*1 rs1799807 - AA / rs1803274 - GG	No pharmacogenomic concerns were identified for Galantamine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Galantamine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Isoniazid Evidence L2 (DPWG) · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Isoniazid from the genes assessed.	Standard dosing of Isoniazid is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Food: Aged cheese, cured meat (tyramine) and some fish (histamine) Other factors: Kidney function; Adherence
Isosorbide di/mononitrate Evidence L3 · Safe & Efficient	ALDH2: Normal predicted response	*1/*1	No pharmacogenomic concerns were identified for Isosorbide di/mononitrate from the genes assessed.	Standard dosing of Isosorbide di/mononitrate is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ivermectin Evidence L4 · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Ivermectin from the genes assessed.	Standard dosing of Ivermectin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Letermovir Evidence L4 · Safe & Efficient	UGT1A1: Normal metabolizer SLCO1B1: Normal transporter function ABCB1: Normal predicted response ABCG2: Normal predicted response CYP3A4: Normal metabolizer	*1/*1 *1/*1 rs1045642 - AA rs2231142 - GG *1/*1	No pharmacogenomic concerns were identified for Letermovir from the genes assessed.	Standard dosing of Letermovir is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Lithium Evidence L4 (contested) · Safe & Efficient	GADL1; BDNF; chr21 lncRNA: Normal predicted response	rs6265 - GG / rs17026688 - CC	No pharmacogenomic concerns were identified for Lithium from the genes assessed.	Standard dosing of Lithium is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Memantine Evidence L4 (informative) · Safe & Efficient	CYP2B6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Memantine from the genes assessed.	Standard dosing of Memantine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, voriconazole May decrease response: rifampicin, efavirenz, carbamazepine Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Methimazole Evidence L4 (informative) · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Methimazole from the genes assessed.	Standard dosing of Methimazole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Paricalcitol Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Paricalcitol from the genes assessed.	Standard dosing of Paricalcitol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Rifampin Evidence L3 · Safe & Efficient	SLCO1B1: Normal transporter function ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Rifampin from the genes assessed.	Standard dosing of Rifampin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Rivastigmine Evidence L3 · Safe & Efficient	BCHE: Normal metabolizer CYP2D6: Normal metabolizer	rs1803274 - GG *1/*1	No pharmacogenomic concerns were identified for Rivastigmine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Rivastigmine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Sacituzumab govitecan Evidence L2 (FDA BW) · Safe & Efficient	UGT1A1: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Sacituzumab govitecan from the genes assessed.	Standard dosing of Sacituzumab govitecan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Spironolactone Evidence L4 · Safe & Efficient	CYP3A4: Normal metabolizer CYP2C8: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Spironolactone from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Spironolactone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Tacrine Evidence L3 (PharmGKB) · Safe & Efficient	CYP1A2: Normal metabolizer BCHE: Normal metabolizer	*1/*1 rs1799807 - AA / rs1803274 - GG	No pharmacogenomic concerns were identified for Tacrine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Tacrine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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OTHER — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Tizanidine Evidence L2 (PharmGKB / DPWG (informative)) · Safe & Efficient	CYP1A2: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tizanidine from the genes assessed.	Standard dosing of Tizanidine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

OTHER CARDIOVASCULAR AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Alfuzosin Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Alfuzosin. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Alfuzosin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Bosentan Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer SLCO1B1: Normal transporter function	*1/*3 *1/*1 *1/*1	CYP2C9 activity is partly reduced, so Bosentan may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Bosentan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, metronidazole, fluvoxamine, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Macitentan Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Macitentan slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Macitentan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Mavacamten Evidence L2 (FDA) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Mavacamten slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Mavacamten may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Methyldopa Evidence L4 (informative) · Use with Caution	COMT: Altered predicted response, one variant allele present	rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Methyldopa.	Methyldopa may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Sacubitril/Val sartin Evidence L4 (informative) · Use with Caution	CYP2C9: Intermediate metabolizer CES1: Poor metabolizer UGT1A1: Normal metabolizer	*1/*3 rs2244613 - GT / rs8192935 - GG *1/*1	CYP2C9 activity is partly reduced, so Sacubitril/Valsartan may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Sacubitril/Valsartan slowly through CES1, so usual doses build up and raise the chance of side-effects. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Sacubitril/Valsartan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Sildenafil Evidence L3 (PharmGKB) · Use with Caution	CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP2C9 activity is partly reduced, so Sildenafil may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Sildenafil may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Sodium Nitroprusside Evidence L4 (informative) · Use with Caution	NOS3: Altered predicted response, one variant allele present	rs1799983 - TG / rs2070744 - CC	NOS3 indicates altered predicted response, one variant allele present, which can alter the response to Sodium Nitroprusside.	Sodium Nitroprusside may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Aliskiren Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Aliskiren from the genes assessed.	Standard dosing of Aliskiren is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Test Name: Comprehensive (All Drugs)
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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ambrisentan Evidence L4 (informative) · Safe & Efficient	UGT2B7: Normal metabolizer SLCO1B1: Normal transporter function CYP3A4: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Ambrisentan from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Ambrisentan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Clonidine Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Clonidine from the genes assessed.	Standard dosing of Clonidine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Digoxin Evidence L4 · Safe & Efficient	ABCB1: Normal predicted response	rs1045642 - AA	No pharmacogenomic concerns were identified for Digoxin from the genes assessed.	Standard dosing of Digoxin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Disopyramide Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Disopyramide from the genes assessed.	Standard dosing of Disopyramide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Doxazosin Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Doxazosin from the genes assessed.	Standard dosing of Doxazosin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Epinephrine Evidence L4 (informative) · Safe & Efficient	ADRB2: Typical beta-2 adrenergic response ADRB1: Typical beta-1 adrenergic response	rs1042713 - GG / rs1042714 - GG rs1801252 - AA / rs1801253 - GG	No pharmacogenomic concerns were identified for Epinephrine from the genes assessed.	Standard dosing of Epinephrine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Eplerenone Evidence L4 (PharmGKB; informational) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Eplerenone from the genes assessed.	Standard dosing of Eplerenone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Ezetimibe Evidence L4 · Safe & Efficient	UGT1A1: Normal metabolizer SLCO1B1: Normal transporter function ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Ezetimibe from the genes assessed.	Standard dosing of Ezetimibe is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Gemfibrozil Evidence L3 · Safe & Efficient	SLCO1B1: Normal transporter function UGT2B7: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Gemfibrozil from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Gemfibrozil is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Hydralazine Evidence L3 · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Hydralazine from the genes assessed.	Standard dosing of Hydralazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Ivabradine Evidence L4 (PharmGKB; informational) · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Ivabradine from the genes assessed.	Standard dosing of Ivabradine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Minoxidil Evidence L3 · Safe & Efficient	SULT1A1: Normal metabolizer	rs1042028 - CC	No pharmacogenomic concerns were identified for Minoxidil from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Minoxidil is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Norepinephrine Evidence L4 (informative) · Safe & Efficient	ADRB1: Typical beta-1 adrenergic response ADRB2: Typical beta-2 adrenergic response	rs1801252 - AA / rs1801253 - GG rs1042713 - GG / rs1042714 - GG	No pharmacogenomic concerns were identified for Norepinephrine from the genes assessed.	Standard dosing of Norepinephrine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Olmesartan Evidence L4 (informative) · Safe & Efficient	SLCO1B1: Normal transporter function ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Olmesartan from the genes assessed.	Standard dosing of Olmesartan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Ranolazine Evidence L3 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Ranolazine from the genes assessed.	Standard dosing of Ranolazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Riociguat Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2C8: Normal metabolizer ABCB1: Normal predicted response ABCG2: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA rs2231142 - GG	No pharmacogenomic concerns were identified for Riociguat from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Riociguat is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Selexipag Evidence L4 (informative) · Safe & Efficient	CYP2C8: Normal metabolizer CYP3A4: Normal metabolizer UGT2B7: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Selexipag from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Selexipag is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, clopidogrel, trimethoprim, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Sildenafil Evidence L4 (informative) · Safe & Efficient	UGT2B7: Normal metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Sildenafil from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Sildenafil is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Tadalafil Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Tadalafil from the genes assessed.	Standard dosing of Tadalafil is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Tamsulosin Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Tamsulosin from the genes assessed.	Standard dosing of Tamsulosin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Tolvaptan Evidence L4 (PharmGKB; informational) · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Tolvaptan from the genes assessed.	Standard dosing of Tolvaptan is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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OTHER CARDIOVASCULAR AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Vericiguat Evidence L4 (informative) · Safe & Efficient	UGT1A1: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Vericiguat from the genes assessed.	Standard dosing of Vericiguat is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

PARKINSON AND MOVEMENT DISORDER AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Apomorphine Evidence L4 (candidate gene) · Use with Caution	COMT: Altered predicted response, one variant allele present CYP3A4: Normal metabolizer CYP2B6: Normal metabolizer	rs4680 - GA *1/*1 *1/*1	COMT indicates altered predicted response, one variant allele present, which can alter the response to Apomorphine.	Apomorphine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, ticlopidine, clopidogrel, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, efavirenz Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Entacapone Evidence L3 (PharmGKB) · Use with Caution	COMT: Altered predicted response, one variant allele present CYP1A2: Normal metabolizer	rs4680 - GA *1/*1	COMT indicates altered predicted response, one variant allele present, which can alter the response to Entacapone.	Entacapone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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Test Name: Comprehensive (All Drugs)
Panel

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PARKINSON AND MOVEMENT DISORDER AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Levodopa Evidence L3 · Use with Caution	COMT: Altered predicted response, one variant allele present OPRM1: Normal predicted response	rs4680 - GA rs1799971 - AA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Levodopa.	Levodopa may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Food: High-protein meals Other factors: Kidney function; Adherence
Opicapone Evidence L4 (literature) · Use with Caution	COMT: Altered predicted response, one variant allele present	rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Opicapone.	Opicapone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Tolcapone Evidence L3 (PharmGKB) · Use with Caution	COMT: Altered predicted response, one variant allele present	rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Tolcapone.	Tolcapone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Benztropine Evidence L4 (candidate gene) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Benzotropine from the genes assessed.	Standard dosing of Benzotropine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Patient Information:
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PARKINSON AND MOVEMENT DISORDER AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Bromocriptine Evidence L3 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Bromocriptine from the genes assessed.	Standard dosing of Bromocriptine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Cabergoline Evidence L3 (PharmGKB) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Cabergoline from the genes assessed.	Standard dosing of Cabergoline is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Deutetrabenazine Evidence L1 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Deutetrabenazine from the genes assessed.	Standard dosing of Deutetrabenazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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PARKINSON AND MOVEMENT DISORDER AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Istradefylline Evidence L3 (FDA label / PharmGKB) · Safe & Efficient	CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Istradefylline from the genes assessed.	Standard dosing of Istradefylline is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Pramipexole Evidence L4 (informative) · Safe & Efficient	ABCG2: Normal predicted response	rs2231142 - GG	No pharmacogenomic concerns were identified for Pramipexole from the genes assessed.	Standard dosing of Pramipexole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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PARKINSON AND MOVEMENT DISORDER AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Rasagiline Evidence L3 (FDA label (informative)) · Safe & Efficient	CYP1A2: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Rasagiline from the genes assessed.	Standard dosing of Rasagiline is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Ropinirole Evidence L2 (DPWG / PharmGKB (informative)) · Safe & Efficient	CYP1A2: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Ropinirole from the genes assessed.	Standard dosing of Ropinirole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Safinamide Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Safinamide from the genes assessed.	Standard dosing of Safinamide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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PARKINSON AND MOVEMENT DISORDER AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Selegiline Evidence L3 · Safe & Efficient	CYP2B6: Normal metabolizer CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Selegiline from the genes assessed.	Standard dosing of Selegiline is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: ticlopidine, clopidogrel, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, efavirenz, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Tetrabenazine Evidence L1 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tetrabenazine from the genes assessed.	Standard dosing of Tetrabenazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Valbenazine Evidence L2 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Valbenazine from the genes assessed.	Standard dosing of Valbenazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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PROTON PUMP INHIBITORS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dexlansoprazole Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Dexlansoprazole slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Dexlansoprazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Esomeprazole Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Esomeprazole slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Esomeprazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Lansoprazole Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Lansoprazole slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Lansoprazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Omeprazole Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Omeprazole slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Omeprazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

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PROTON PUMP INHIBITORS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Pantoprazole Evidence L1 (CPIC A) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Pantoprazole slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Pantoprazole may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Vonoprazan Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser CYP2B6: Normal metabolizer CYP2C19: Poor metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*3 *1/*1 *2/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Vonoprazan. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect. This patient breaks down Vonoprazan slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Vonoprazan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, ticlopidine, clopidogrel, fluconazole, fluvoxamine, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, efavirenz Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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PROTON PUMP INHIBITORS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Rabeprazole Evidence L1 (CPIC A) · Safe & Efficient	CYP2C19: Poor metabolizer	*2/*3	Rabeprazole is only mildly affected by pharmacogenetics: it is cleared predominantly by a non-enzymatic pathway, so CYP2C19 variation has little clinically significant effect on exposure. Standard, guideline-based prescribing applies regardless of genotype.	Standard dosing of Rabeprazole is appropriate on the basis of the genes assessed.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

RARE DISEASE AND ENZYME THERAPIES

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Sparsentan Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer CYP2B6: Normal metabolizer	*1/*1 *1/*3 *1/*1	CYP2C9 activity is partly reduced, so Sparsentan may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Sparsentan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, ticlopidine, clopidogrel, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, efavirenz Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

RARE DISEASE AND ENZYME THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Deferasirox Evidence L4 · Safe & Efficient	UGT1A1: Normal metabolizer CYP1A2: Normal metabolizer CYP2C8: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Deferasirox from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Deferasirox is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, gemfibrozil, oral contraceptives, cimetidine, clopidogrel, trimethoprim May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Fomepizole Evidence L4 (informative) · Safe & Efficient	ALDH2: Normal predicted response	*1/*1	No pharmacogenomic concerns were identified for Fomepizole from the genes assessed.	Standard dosing of Fomepizole is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Lomitapide Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Lomitapide from the genes assessed.	Standard dosing of Lomitapide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Panel

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RARE DISEASE AND ENZYME THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Setmelanotide Evidence L4 (informative) · Safe & Efficient	MC4R: Normal predicted response	rs489693 - CC	No pharmacogenomic concerns were identified for Setmelanotide from the genes assessed.	Standard dosing of Setmelanotide is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

RESPIRATORY AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Budesonide Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	*1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Budesonide. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Budesonide may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Formoterol Evidence L3 · Use with Caution	ADRB2: Typical beta-2 adrenergic response CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer UGT1A1: Normal metabolizer	rs1042713 - GG / rs1042714 - GG *1/*1 *2/*3 *1/*1	This patient breaks down Formoterol slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Formoterol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

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Patient Information:
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RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Nintedanib Evidence L4 (informative) · Use with Caution	ABCB1: Normal predicted response CES1: Poor metabolizer CYP3A4: Normal metabolizer	rs1045642 - AA rs2244613 - GT / rs8192935 - GG *1/*1	This patient breaks down Nintedanib slowly through CES1, so usual doses build up and raise the chance of side-effects. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Nintedanib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Pirfenidone Evidence L4 · Use with Caution	CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer CYP2C19: Poor metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*3 *2/*3 *1/*1	CYP2C9 activity is partly reduced, so Pirfenidone may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Pirfenidone slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Pirfenidone may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, ticlopidine, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole, esomeprazole, voriconazole, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

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Sex at Birth: Male

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RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Zafirlukast Evidence L3 · Use with Caution	CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer	*1/*3 *1/*1	CYP2C9 activity is partly reduced, so Zafirlukast may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Zafirlukast may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, metronidazole, fluvoxamine, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Zileuton Evidence L4 (informative) · Use with Caution	CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*3 *1/*1	CYP2C9 activity is partly reduced, so Zileuton may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Zileuton may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital, phenytoin, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Beclomethasone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Beclomethasone from the genes assessed.	Standard dosing of Beclomethasone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Elexacaftor/Tezacaftor/Ivacaftor Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Elexacaftor/Tezacaftor/Ivacaftor from the genes assessed.	Standard dosing of Elexacaftor/Tezacaftor/Ivacaftor is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Ephedrine Evidence L4 · Safe & Efficient	ADRB2: Typical beta-2 adrenergic response	rs1042713 - GG	No pharmacogenomic concerns were identified for Ephedrine from the genes assessed.	Standard dosing of Ephedrine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Place: —

RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ivacaftor Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Ivacaftor from the genes assessed.	Standard dosing of Ivacaftor is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Lumacaftor/Ivacaftor Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Lumacaftor/Ivacaftor from the genes assessed.	Standard dosing of Lumacaftor/Ivacaftor is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Methacholine Evidence L4 · Safe & Efficient	ADRB2: Typical beta-2 adrenergic response	rs1042713 - GG	No pharmacogenomic concerns were identified for Methacholine from the genes assessed.	Standard dosing of Methacholine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Montelukast Evidence L2 · Safe & Efficient	CYP2C8: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Montelukast from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Montelukast is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: gemfibrozil, clopidogrel, trimethoprim May decrease response: rifampicin Other factors: Kidney function; Adherence
Phenylephrine Evidence L4 (informative) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Phenylephrine from the genes assessed.	Standard dosing of Phenylephrine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Ritodrine Evidence L3 · Safe & Efficient	ADRB2: Typical beta-2 adrenergic response	rs1042713 - GG / rs1042714 - GG	No pharmacogenomic concerns were identified for Ritodrine from the genes assessed.	Standard dosing of Ritodrine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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Patient Information:
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RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Roflumilast Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Roflumilast from the genes assessed.	Standard dosing of Roflumilast is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluvoxamine, ciprofloxacin, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Salbutamol (albuterol) Evidence L3 · Safe & Efficient	ADRB2: Typical beta-2 adrenergic response ADRB1: Typical beta-1 adrenergic response	rs1042713 - GG / rs1042714 - GG rs1801252 - AA / rs1801253 - GG	No pharmacogenomic concerns were identified for Salbutamol (albuterol) from the genes assessed.	Standard dosing of Salbutamol (albuterol) is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Salmeterol Evidence L3 · Safe & Efficient	ADRB2: Typical beta-2 adrenergic response CYP3A4: Normal metabolizer ADRB1: Typical beta-1 adrenergic response	rs1042713 - GG / rs1042714 - GG *1/*1 rs1801252 - AA / rs1801253 - GG	No pharmacogenomic concerns were identified for Salmeterol from the genes assessed.	Standard dosing of Salmeterol is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Terbutaline Evidence L4 (candidate gene) · Safe & Efficient	ADRB2: Typical beta-2 adrenergic response	rs1042713 - GG / rs1042714 - GG	No pharmacogenomic concerns were identified for Terbutaline from the genes assessed.	Standard dosing of Terbutaline is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Tezacaftor/Ivacaftor Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tezacaftor/Ivacaftor from the genes assessed.	Standard dosing of Tezacaftor/Ivacaftor is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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RESPIRATORY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Theophylline Evidence L3 · Safe & Efficient	CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Theophylline from the genes assessed.	Standard dosing of Theophylline is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Vanzacaftor/Tezacaftor/Deutivacaftor Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Vanzacaftor/Tezacaftor/Deutivacaftor from the genes assessed.	Standard dosing of Vanzacaftor/Tezacaftor/Deutivacaftor is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Place: —

SEX HORMONES AND FERTILITY AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Clomiphene Evidence L4 (informative) · Use with Caution	CYP2D6: Normal metabolizer CYP2C9: Intermediate metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*3 *1/*1	CYP2C9 activity is partly reduced, so Clomiphene may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Clomiphene may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, amiodarone, miconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, metronidazole, fluvoxamine, sulfamethoxazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenobarbital, phenytoin, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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Place: —

SEX HORMONES AND FERTILITY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Estradiol Evidence L4 (informative) · Use with Caution	CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer COMT: Altered predicted response, one variant allele present SULT1A1: Normal metabolizer	*1/*1 *1/*1 rs4680 - GA rs1042028 - CC	COMT indicates altered predicted response, one variant allele present, which can alter the response to Estradiol. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Estradiol may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Fezolinetant Evidence L4 (informative) · Use with Caution	CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer CYP2C19: Poor metabolizer	*1/*1 *1/*3 *2/*3	CYP2C9 activity is partly reduced, so Fezolinetant may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. This patient breaks down Fezolinetant slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Fezolinetant may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, ticlopidine, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole, esomeprazole, voriconazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

SEX HORMONES AND FERTILITY AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Medroxyprogesterone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Medroxyprogesterone from the genes assessed.	Standard dosing of Medroxyprogesterone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Testosterone Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Testosterone from the genes assessed.	Standard dosing of Testosterone is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243

Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Source: Buccal swab

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Hospital: 30M Genomics

Place: —

STATINS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Atorvastatin Evidence L2-L3 · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Atorvastatin from the genes assessed.	Standard dosing of Atorvastatin is appropriate on the basis of the genes assessed. Key risks: Muscle pain or weakness; check creatine kinase if symptomatic (myopathy / rhabdomyolysis).	May increase response: strong CYP3A inhibitors with simvastatin/atorvastatin (rhabdomyolysis) — clarithromycin, itraconazole, ritonavir Food: Grapefruit juice Other factors: Kidney function; Adherence
Cerivastatin Evidence L1 · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Cerivastatin from the genes assessed.	Standard dosing of Cerivastatin is appropriate on the basis of the genes assessed. Key risks: Muscle pain or weakness; check creatine kinase if symptomatic (myopathy / rhabdomyolysis).	May increase response: strong CYP3A inhibitors with simvastatin/atorvastatin (rhabdomyolysis) — clarithromycin, itraconazole, ritonavir Food: Grapefruit juice Other factors: Kidney function; Adherence
Fluvastatin Evidence L1 · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Fluvastatin from the genes assessed.	Standard dosing of Fluvastatin is appropriate on the basis of the genes assessed. Key risks: Muscle pain or weakness; check creatine kinase if symptomatic (myopathy / rhabdomyolysis).	May increase response: strong CYP3A inhibitors with simvastatin/atorvastatin (rhabdomyolysis) — clarithromycin, itraconazole, ritonavir Food: Grapefruit juice Other factors: Kidney function; Adherence
Lovastatin Evidence L2-L3 · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Lovastatin from the genes assessed.	Standard dosing of Lovastatin is appropriate on the basis of the genes assessed. Key risks: Muscle pain or weakness; check creatine kinase if symptomatic (myopathy / rhabdomyolysis).	May increase response: strong CYP3A inhibitors with simvastatin/atorvastatin (rhabdomyolysis) — clarithromycin, itraconazole, ritonavir Food: Grapefruit juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

STATINS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Pitavastatin Evidence L2-L3 · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Pitavastatin from the genes assessed.	Standard dosing of Pitavastatin is appropriate on the basis of the genes assessed. Key risks: Muscle pain or weakness; check creatine kinase if symptomatic (myopathy / rhabdomyolysis).	May increase response: strong CYP3A inhibitors with simvastatin/atorvastatin (rhabdomyolysis) — clarithromycin, itraconazole, ritonavir Food: Grapefruit juice Other factors: Kidney function; Adherence
Pravastatin Evidence L2-L3 · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Pravastatin from the genes assessed.	Standard dosing of Pravastatin is appropriate on the basis of the genes assessed. Key risks: Muscle pain or weakness; check creatine kinase if symptomatic (myopathy / rhabdomyolysis).	May increase response: strong CYP3A inhibitors with simvastatin/atorvastatin (rhabdomyolysis) — clarithromycin, itraconazole, ritonavir Food: Grapefruit juice Other factors: Kidney function; Adherence
Rosuvastatin Evidence L1 · Safe & Efficient	ABCG2: Normal predicted response SLCO1B1: Normal transporter function	rs2231142 - GG *1/*1	No pharmacogenomic concerns were identified for Rosuvastatin from the genes assessed.	Standard dosing of Rosuvastatin is appropriate on the basis of the genes assessed. Key risks: Muscle pain or weakness; check creatine kinase if symptomatic (myopathy / rhabdomyolysis).	May increase response: strong CYP3A inhibitors with simvastatin/atorvastatin (rhabdomyolysis) — clarithromycin, itraconazole, ritonavir Food: Grapefruit juice Other factors: Kidney function; Adherence
Simvastatin Evidence L1 (CPIC A) · Safe & Efficient	SLCO1B1: Normal transporter function	*1/*1	No pharmacogenomic concerns were identified for Simvastatin from the genes assessed.	Standard dosing of Simvastatin is appropriate on the basis of the genes assessed. Key risks: Muscle pain or weakness; check creatine kinase if symptomatic (myopathy / rhabdomyolysis).	May increase response: strong CYP3A inhibitors with simvastatin/atorvastatin (rhabdomyolysis) — clarithromycin, itraconazole, ritonavir Food: Grapefruit juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Hospital: 30M Genomics

Place: —

STIMULANTS AND ADHD AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Amphetamine / Dextroamphet amine Evidence L3 (PharmGKB / FDA label) · Use with Caution	CYP2D6: Normal metabolizer COMT: Altered predicted response, one variant allele present	*1/*1 rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Amphetamine / Dextroamphetamine.	Amphetamine / Dextroamphetamine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Armodafinil Evidence L4 (PharmGKB) · Use with Caution	CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer COMT: Altered predicted response, one variant allele present	*2/*3 *1/*1 rs4680 - GA	This patient breaks down Armodafinil slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. COMT indicates altered predicted response, one variant allele present, which can alter the response to Armodafinil.	Armodafinil may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

STIMULANTS AND ADHD AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dexmethylphenidate Evidence L4 (candidate gene) · Use with Caution	CES1: Poor metabolizer COMT: Altered predicted response, one variant allele present	rs2244613 - GT / rs8192935 - GG rs4680 - GA	This patient breaks down Dexmethylphenidate slowly through CES1, so usual doses build up and raise the chance of side-effects. COMT indicates altered predicted response, one variant allele present, which can alter the response to Dexmethylphenidate. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Dexmethylphenidate may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Guanfacine Evidence L3 (FDA label (PK)) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser	*1/*1 *1/*3	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Guanfacine. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Guanfacine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Lisdexamfetamine Evidence L4 (PharmGKB) · Use with Caution	CYP2D6: Normal metabolizer COMT: Altered predicted response, one variant allele present	*1/*1 rs4680 - GA	COMT indicates altered predicted response, one variant allele present, which can alter the response to Lisdexamfetamine.	Lisdexamfetamine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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STIMULANTS AND ADHD AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Methylphenidate Evidence L3 · Use with Caution	CES1: Intermediate metabolizer COMT: Altered predicted response, one variant allele present	rs71647871 - GA rs4680 - GA	CES1 activity is partly reduced, so Methylphenidate may build up at standard doses. COMT indicates altered predicted response, one variant allele present, which can alter the response to Methylphenidate. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Methylphenidate may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Modafinil Evidence L3 (PharmGKB) · Use with Caution	CYP2C19: Poor metabolizer COMT: Altered predicted response, one variant allele present CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer	*2/*3 rs4680 - GA *1/*1 *1/*1	This patient breaks down Modafinil slowly through CYP2C19, so usual doses build up and raise the chance of side-effects. COMT indicates altered predicted response, one variant allele present, which can alter the response to Modafinil.	Modafinil may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, ciprofloxacin, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

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Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

STIMULANTS AND ADHD AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Atomoxetine Evidence L1 (CPIC A) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Atomoxetine from the genes assessed.	Standard dosing of Atomoxetine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Caffeine Evidence L4 · Safe & Efficient	CYP1A2: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Caffeine from the genes assessed.	Standard dosing of Caffeine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Pitolisant Evidence L2 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Pitolisant from the genes assessed.	Standard dosing of Pitolisant is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Viloxazine Evidence L4 (FDA label) · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Viloxazine from the genes assessed.	Standard dosing of Viloxazine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine May decrease response: tobacco smoke, carbamazepine, omeprazole Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

SUPPORTIVE CARE

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Dronabinol (THC) Evidence L4 · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Dronabinol (THC) may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Dronabinol (THC) may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Methoxsalen Evidence L4 (informative) · Use with Caution	CYP1A2: Normal metabolizer CYP2C9: Intermediate metabolizer	*1/*1 *1/*3	CYP2C9 activity is partly reduced, so Methoxsalen may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Methoxsalen may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluvoxamine, ciprofloxacin, fluconazole, amiodarone, miconazole, oral contraceptives, cimetidine, metronidazole, sulfamethoxazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenobarbital Food: Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Cinacalcet Evidence L2 (PharmGKB (CYP2D6)) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Cinacalcet from the genes assessed.	Standard dosing of Cinacalcet is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, abiraterone Other factors: Kidney function; Adherence
Dolasetron Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Dolasetron from the genes assessed.	Standard dosing of Dolasetron is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

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Panel

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Place: —

SUPPORTIVE CARE — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Eliglustat Evidence L1 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Eliglustat from the genes assessed.	Standard dosing of Eliglustat is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Granisetron Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Granisetron from the genes assessed.	Standard dosing of Granisetron is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Ondansetron Evidence L1 (CPIC A) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Ondansetron from the genes assessed.	Standard dosing of Ondansetron is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Palonosetron Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Palonosetron from the genes assessed.	Standard dosing of Palonosetron is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Place: —

SUPPORTIVE CARE — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Tropisetron Evidence L1 (CPIC A) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tropisetron from the genes assessed.	Standard dosing of Tropisetron is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Zoledronate (zoledronic acid) Evidence L4 · Safe & Efficient	—	NA	No validated pharmacogenetic marker is currently established for Zoledronate (zoledronic acid); the recommendation reflects standard, guideline-based prescribing.	Standard dosing of Zoledronate (zoledronic acid) is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

TARGETED THERAPIES

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Abrocitinib Evidence L2 (FDA label (CYP2C19 PM dose reduction)) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Abrocitinib slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Abrocitinib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Belzutifan Evidence L2 (FDA label (dual UGT2B17/CYP2C19 PM monitoring)) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Belzutifan slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Belzutifan may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Deuruxolitinib Evidence L1 (FDA; contraindicated in CYP2C9 poor metabolizers) · Use with Caution	CYP2C9: Intermediate metabolizer	*1/*3	CYP2C9 activity is partly reduced, so Deuruxolitinib may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Deuruxolitinib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, amiodarone, miconazole, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenobarbital Other factors: Kidney function; Adherence
Everolimus Evidence L3 · Use with Caution	CYP3A5: Intermediate expresser CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*3 *1/*1 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Everolimus. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Everolimus may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice; Grapefruit juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Date Received: 27/08/2026

Source: Buccal swab

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Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ibrutinib Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser CYP2D6: Normal metabolizer	*1/*1 *1/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Ibrutinib. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Ibrutinib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Imatinib Evidence L4 (informative) · Use with Caution	ABCB1: Normal predicted response ABCG2: Normal predicted response CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser CYP2D6: Normal metabolizer	rs1045642 - AA rs2231142 - GG *1/*1 *1/*3 *1/*1	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Imatinib. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Imatinib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ruxolitinib Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer	*1/*1 *1/*3	CYP2C9 activity is partly reduced, so Ruxolitinib may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Ruxolitinib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Sunitinib Evidence L4 · Use with Caution	ABCG2: Normal predicted response CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser ABCB1: Normal predicted response	rs2231142 - GG *1/*1 *1/*3 rs1045642 - AA	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Sunitinib. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Sunitinib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice; Grapefruit; acid-suppressing drinks Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Hospital: 30M Genomics

Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Tofacitinib Evidence L3 · Use with Caution	CYP3A4: Normal metabolizer CYP2C19: Intermediate metabolizer ABCB1: Normal predicted response ABCG2: Normal predicted response	*1/*1 *1/*2 rs1045642 - AA rs2231142 - GG	CYP2C19 activity is partly reduced, so Tofacitinib may build up at standard doses. Guideline-directed dose adjustment may apply; check the drug-specific recommendation.	Tofacitinib may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, fluvoxamine, ticlopidine, erythromycin, diltiazem, verapamil, grapefruit juice, omeprazole, esomeprazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Axitinib Evidence L3 · Safe & Efficient	UGT1A1: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Axitinib from the genes assessed.	Standard dosing of Axitinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Baricitinib Evidence L4 (informative) · Safe & Efficient	ABCB1: Normal predicted response ABCG2: Normal predicted response	rs1045642 - AA rs2231142 - GG	No pharmacogenomic concerns were identified for Baricitinib from the genes assessed.	Standard dosing of Baricitinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Erlotinib Evidence L3 · Safe & Efficient	CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer ABCG2: Normal predicted response UGT1A1: Normal metabolizer	*1/*1 *1/*1 rs2231142 - GG *1/*1	No pharmacogenomic concerns were identified for Erlotinib from the genes assessed.	Standard dosing of Erlotinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluvoxamine, ciprofloxacin, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food; Grapefruit; acid-suppressing drinks Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Hospital: 30M Genomics

Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Gefitinib Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer ABCG2: Normal predicted response CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 rs2231142 - GG *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Gefitinib from the genes assessed.	Standard dosing of Gefitinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice; Grapefruit; acid-suppressing drinks Other factors: Kidney function; Adherence
Lapatinib Evidence L4 (informative) · Safe & Efficient	UGT1A1: Normal metabolizer CYP3A4: Normal metabolizer CYP2C8: Normal metabolizer ABCB1: Normal predicted response ABCG2: Normal predicted response	*1/*1 *1/*1 *1/*1 rs1045642 - AA rs2231142 - GG	No pharmacogenomic concerns were identified for Lapatinib from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Lapatinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, gemfibrozil, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, clopidogrel, trimethoprim May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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Referring Doctor:
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Hospital: 30M Genomics

Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Nilotinib Evidence L2 (FDA) · Safe & Efficient	UGT1A1: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Nilotinib from the genes assessed.	Standard dosing of Nilotinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Food: Grapefruit; acid-suppressing drinks Other factors: Kidney function; Adherence
Pazopanib Evidence L2 (FDA) · Safe & Efficient	UGT1A1: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Pazopanib from the genes assessed.	Standard dosing of Pazopanib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Food: Grapefruit; acid-suppressing drinks Other factors: Kidney function; Adherence
Regorafenib Evidence L4 (informative) · Safe & Efficient	UGT1A1: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Regorafenib from the genes assessed.	Standard dosing of Regorafenib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
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Hospital: 30M Genomics

Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Ritlecitinib Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP1A2: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Ritlecitinib from the genes assessed.	Standard dosing of Ritlecitinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluvoxamine, ciprofloxacin, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, oral contraceptives, cimetidine May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin, tobacco smoke, omeprazole Food: Grapefruit, Seville orange & pomelo juice; Tobacco smoke & char-grilled food Other factors: Kidney function; Adherence
Sorafenib Evidence L3 · Safe & Efficient	UGT1A1: Normal metabolizer CYP3A4: Normal metabolizer ABCG2: Normal predicted response ABCB1: Normal predicted response	*1/*1 *1/*1 rs2231142 - GG rs1045642 - AA	No pharmacogenomic concerns were identified for Sorafenib from the genes assessed.	Standard dosing of Sorafenib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Referring Doctor:
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Hospital: 30M Genomics

Place: —

TARGETED THERAPIES — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Upadacitinib Evidence L4 (informative) · Safe & Efficient	CYP3A4: Normal metabolizer CYP2D6: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Upadacitinib from the genes assessed.	Standard dosing of Upadacitinib is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, bupropion, fluoxetine, paroxetine, quinidine, terbinafine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice, duloxetine, mirabegron, cinacalcet, abiraterone May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Amitriptyline Evidence L1 (CPIC A) · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Amitriptyline slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Amitriptyline may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
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Hospital: 30M Genomics

Place: —

TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Clomipramine Evidence L1 (CPIC A) · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Clomipramine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Clomipramine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Dosulepin Evidence L3 (PharmGKB) · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *2/*3 *1/*1 rs1045642 - AA	This patient breaks down Dosulepin slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Dosulepin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Place: —

TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Doxepin Evidence L1 (CPIC A) · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Doxepin slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Doxepin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Imipramine Evidence L1 (CPIC A) · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Imipramine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Imipramine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
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Place: —

TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Mirtazapine Evidence L3 · Use with Caution	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer	*1/*1 *1/*1 *1/*1 *1/*3	CYP2C9 activity is partly reduced, so Mirtazapine may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate.	Mirtazapine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, sulfamethoxazole May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

ID: SPECIMEN-9243

Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Trimipramine Evidence L1 (CPIC A) · Use with Caution	CYP2D6: Normal metabolizer CYP2C19: Poor metabolizer	*1/*1 *2/*3	This patient breaks down Trimipramine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Trimipramine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluconazole, fluvoxamine, ticlopidine, duloxetine, mirabegron, cinacalcet, abiraterone, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence
Amoxapine Evidence L2 (PharmGKB/D PWG (class extrapolation)) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Amoxapine from the genes assessed.	Standard dosing of Amoxapine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Desipramine Evidence L1 (CPIC A) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Desipramine from the genes assessed.	Standard dosing of Desipramine is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Lofepramine Evidence L3 (PharmGKB) · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Lofepramine from the genes assessed.	Standard dosing of Lofepramine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Maprotiline Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Maprotiline from the genes assessed.	Standard dosing of Maprotiline is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Mianserin Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1 *1/*1	No pharmacogenomic concerns were identified for Mianserin from the genes assessed.	Standard dosing of Mianserin is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Nortriptyline Evidence L1 (CPIC A) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Nortriptyline from the genes assessed.	Standard dosing of Nortriptyline is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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TRICYCLIC AND TETRACYCLIC ANTIDEPRESSANTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Opipramol Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Opipramol from the genes assessed.	Standard dosing of Opipramol is appropriate on the basis of the genes assessed. Key risks: Serotonergic and anticholinergic effects; QT in some; review mood early in treatment.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Protriptyline Evidence L2 (FDA label (informative)) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Protriptyline from the genes assessed.	Standard dosing of Protriptyline is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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UROLOGICAL AGENTS

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Fenfluramine Evidence L3 (FDA label (informative)) · Use with Caution	CYP2D6: Normal metabolizer CYP1A2: Normal metabolizer CYP2B6: Normal metabolizer CYP2C19: Poor metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1 *1/*1 *2/*3 *1/*1	This patient breaks down Fenfluramine slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Fenfluramine may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, fluvoxamine, ciprofloxacin, ticlopidine, clopidogrel, fluconazole, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, oral contraceptives, cimetidine, esomeprazole, erythromycin, diltiazem, verapamil, grapefruit juice May decrease response: tobacco smoke, carbamazepine, omeprazole, rifampicin, efavirenz, phenytoin, phenobarbital, St John's wort, rifabutin Food: Tobacco smoke & char-grilled food; Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence

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UROLOGICAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Oxybutynin Evidence L3 · Use with Caution	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer CYP3A5: Intermediate expresser	*1/*1 *1/*1 *1/*3	CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Oxybutynin. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Oxybutynin may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Sulthiame Evidence L4 (literature) · Use with Caution	CYP2C19: Poor metabolizer	*2/*3	This patient breaks down Sulthiame slowly through CYP2C19, so usual doses build up and raise the chance of side-effects.	Sulthiame may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: fluconazole, fluvoxamine, ticlopidine, omeprazole, esomeprazole, voriconazole May decrease response: rifampicin, carbamazepine Other factors: Kidney function; Adherence

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UROLOGICAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Vardenafil Evidence L4 (informative) · Use with Caution	CYP3A4: Normal metabolizer CYP2C9: Intermediate metabolizer CYP3A5: Intermediate expresser	*1/*1 *1/*3 *1/*3	CYP2C9 activity is partly reduced, so Vardenafil may build up at standard doses. Consider a reduced starting dose — begin at the lowest effective dose and titrate. CYP3A5 is expressed, which adds to CYP3A4-mediated clearance of Vardenafil. Exposure may be lower than in the non-expresser majority; monitor clinical response and titrate to effect.	Vardenafil may be used with caution. Begin at a lower dose and adjust to response, or select an alternative where a more suitable option exists, and monitor as set out below. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, fluconazole, amiodarone, miconazole, erythromycin, diltiazem, verapamil, grapefruit juice, metronidazole, fluvoxamine, sulfamethoxazole May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Amifampridine Evidence L2 (FDA label (NAT2 exposure)) · Safe & Efficient	NAT2: Rapid acetylator	*1/*1	No pharmacogenomic concerns were identified for Amifampridine from the genes assessed.	Standard dosing of Amifampridine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence
Betahistine Evidence L4 (candidate gene) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Betahistine from the genes assessed.	Standard dosing of Betahistine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

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UROLOGICAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Cinnarizine Evidence L3 (PharmGKB) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Cinnarizine from the genes assessed.	Standard dosing of Cinnarizine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Darifenacin Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Darifenacin from the genes assessed.	Standard dosing of Darifenacin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Ezogabine Evidence L3 (PharmGKB) · Safe & Efficient	UGT1A4: Normal metabolizer NAT2: Rapid acetylator	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Ezogabine from the genes assessed.	Standard dosing of Ezogabine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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UROLOGICAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Fesoterodine Evidence L2-L3 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Fesoterodine from the genes assessed.	Standard dosing of Fesoterodine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence
Mirabegron Evidence L4 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer ABCB1: Normal predicted response	*1/*1 *1/*1 rs1045642 - AA	No pharmacogenomic concerns were identified for Mirabegron from the genes assessed.	Standard dosing of Mirabegron is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Pyridostigmine Evidence L3 (PharmGKB) · Safe & Efficient	BCHE: Normal metabolizer	rs1799807 - AA / rs1803274 - GG	No pharmacogenomic concerns were identified for Pyridostigmine from the genes assessed. This includes a provisional, functionally-inferred call for a non-standard genotype (see confidence).	Standard dosing of Pyridostigmine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	Other factors: Kidney function; Adherence

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UROLOGICAL AGENTS — continued

Drug	Gene & Phenotype	Diplotype / Genotype	Relevance & Effect	Recommendation & Key risks	Drug, Food & Other Interactions
Solifenacin Evidence L3 · Safe & Efficient	CYP2D6: Normal metabolizer CYP3A4: Normal metabolizer	*1/*1 *1/*1	No pharmacogenomic concerns were identified for Solifenacin from the genes assessed.	Standard dosing of Solifenacin is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, clarithromycin, itraconazole, ketoconazole, ritonavir/cobicistat, voriconazole, posaconazole, duloxetine, mirabegron, cinacalcet, abiraterone, erythromycin, diltiazem, verapamil, fluconazole, grapefruit juice May decrease response: rifampicin, carbamazepine, phenytoin, phenobarbital, St John's wort, rifabutin Food: Grapefruit, Seville orange & pomelo juice Other factors: Kidney function; Adherence
Tolterodine Evidence L2-L3 (FDA) · Safe & Efficient	CYP2D6: Normal metabolizer	*1/*1	No pharmacogenomic concerns were identified for Tolterodine from the genes assessed.	Standard dosing of Tolterodine is appropriate on the basis of the genes assessed. Key risks: No specific pharmacogenomic monitoring beyond routine care for this drug.	May increase response: bupropion, fluoxetine, paroxetine, quinidine, terbinafine, duloxetine, mirabegron, cinacalcet, abiraterone Other factors: Kidney function; Adherence

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ID: SPECIMEN-9243
Patient Information:
Name : Demo B. Example

Date of Birth: 10/09/1973

Sex at Birth: Male

Test Name: Comprehensive (All Drugs)
Panel

Sample Information:
Date Collected: 25/08/2026

Date Received: 27/08/2026

Source: Buccal swab

Result Date: 31/08/2026

Referring Doctor:
Name: Dr Demo Consultant

Hospital: 30M Genomics

Place: —

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TEST RELATED INFORMATION

Our lab partner owns the proprietary technology, SmartPGx, which performs the genetic assay through standard and optimised allele-specific PCR, ARMS PCR, long PCR and multiplex PCR. Sequencing methodologies are not used for the routine genetic analysis. Results are analysed by agarose gel electrophoresis, immunogenetic methods and using Real Time PCR. Reports are generated through an automated process and verified by the undersigned. In a few cases, unknown factors may influence drug dosage and the outcome may deviate from the results provided; We or the lab partner are not held responsible for any liabilities. Random samples are subjected to DNA sequencing for quality check of the assays.

DISCLAIMER

This report does not imply or warrant medical advice in any form. The treating physician has the ultimate responsibility for all treatment decisions and for the choice of considering this report. It is strongly recommended that this report be clinically interpreted. The physician should review the patient's clinical history and the drug characteristics before prescribing. No part of this report shall be reproduced in any form without the written permission of OneDNA and our lab partner. We follow the Clinical Pharmacogenetics Implementation Consortium (CPIC) guidelines for pharmacogenotype identification and reporting. No approval or clearance is mandatory for this assay, as per the recommendations of the Food and Drug Administration (FDA).



Dr BB Dhas,
Genetic Analyst