



PATIENT INFORMATION

NAME: Demo FGIH
DOB: 12/May/1982
SEX AT BIRTH: Female

SPECIMEN DETAILS

BARCODE: Demo1_FGIH
SAMPLE ID: Demo1_FGIH
TYPE: Swab
COLLECTED: 18/Dec/2024

ORDERED BY

Clinical Lead
REPORT
GENERATED: 24/Jan/2025 (GMT)

Your Pharmacogenomics Report

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This pharmacogenetic information is based on best evidence compiled from guidelines and databases including the FDA Table of Pharmacogenetic Associations and the Clinical Pharmacogenetics Implementation Consortium (CPIC).
Please refer to the Methods, Limitations, and Liability Disclaimer at the end of this report.

Medication Summary

The Medication Summary is a list of medications with evidence for the use of pharmacogenetic information, organized by their therapeutic area. Medications are further organized based on drug-gene interactions. Health care providers should consider the information contained in the Medication Report before making any clinical or therapeutic decisions.

-  1 Mild or no known drug-gene interaction
-  2 Moderate drug-gene interaction
-  3 Serious drug-gene interaction: avoid/select alternative

Analgesia	...Analgesia	...Analgesia	...Autoimmune	...Cancer	...Cardiovascular
 2	 1	 1	 2	 1	 1
Alfentanil	Hydrocodone	Tenoxicam	Tacrolimus	Thioguanine	Mavacamten
Amitriptyline	Ibuprofen	Tramadol	 1	Cardiovascular	Metoprolol
 1	Imipramine	Venlafaxine	Thioguanine	 2	Nebivolol
Carisoprodol	 1	Autoimmune	Cancer	Atorvastatin	 2
Celecoxib	Meloxicam	 1	 1	Carvedilol	Pitavastatin
Codeine	 2	Azathioprine	Capecitabine	Clopidogrel	Pravastatin
Desipramine	Morphine	 2	Erdafitinib	Flecainide	 1
 2	 1	Cyclosporine	Fluorouracil	 2	Propafenone
Fentanyl	Nortriptyline	 1	Gefitinib	Fluvastatin	Propranolol
 1	Oliceridine	Mercaptopurine	Mercaptopurine	 3	 2
Flurbiprofen	Piroxicam	Methotrexate	Methotrexate	Lovastatin	Rosuvastatin
		Siponimod	Tamoxifen		 3
					Simvastatin



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...Cardiovascular

2

Warfarin

Endocrinology

1

Nateglinide

Gastroenterology

2

Dexlansoprazole

1

Dronabinol

Esomeprazole

2

Lansoprazole

1

Meclizine

Methotrexate

Metoclopramide

2

Omeprazole

1

Ondansetron

2

Pantoprazole

1

Rabeprazole

Infection

2

Efavirenz

Voriconazole

Mental Health

2

Amitriptyline

1

Amoxapine

Amphetamine

Aripiprazole

Aripiprazole lauroxil

Atomoxetine

Brexipiprazole

2

Bupropion

Citalopram

Clomipramine

Clozapine

1

Desipramine

Diazepam

2

Doxepin

...Mental Health

2

Escitalopram

1

Fluoxetine

Fluvoxamine

Haloperidol

Iloperidone

2

Imipramine

1

Lofexidine

2

Methylphenidate

1

Nicotine replacement
therapy

Nortriptyline

2

Olanzapine

1

Paroxetine

Perphenazine

Pimozide

Protriptyline

Quetiapine

2

Risperidone

...Mental Health

1

Sertraline

Thioridazine

2

Trimipramine

1

Venlafaxine

Viloxazine

Vortioxetine

Zuclopenthixol

Neurology

2

Amitriptyline

1

Brivaracetam

Clobazam

Deutetrabenazine

Diazepam

Donepezil

Fosphenytoin

Galantamine

Metoprolol

Phenytoin

Pitolisant

Propranolol

...Neurology

1

Tetrabenazine

Valbenazine

Venlafaxine

Other

1

Abrocitinib

Avatrombopag

Cevimeline

Elagolix

Eliglustat

Eltrombopag

Flibanserin

Lusutrombopag

Oral contraceptives

Respiratory

1

Salmeterol

Rheumatology

1

Azathioprine

Celecoxib

Flurbiprofen

Ibuprofen

Meloxicam

...Rheumatology

1

Methotrexate

Piroxicam

Tenoxicam

Urology

1

Darifenacin

Fesoterodine

Mirabegron

Tamsulosin

Tolterodine

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Medication Summary Table

Some medications may appear in multiple columns below due to various possible effects of the drug-gene interaction.
For warfarin, several factors influence dosing calculation alongside PGx. See Medication Report for details.

	1 Mild or no known drug-gene interaction	2 Moderate drug-gene interaction				3 Serious drug-gene interaction: avoid/select alternative
		 Consider alternative medications	 May require an increased dose	 May require a reduced dose	 May reduce efficacy	 May increase adverse events
Analgesia	Carisoprodol Celecoxib Codeine Desipramine Flurbiprofen Hydrocodone Ibuprofen Meloxicam Nortriptyline Oliceridine Piroxicam Tenoxicam Tramadol Venlafaxine	Amitriptyline Imipramine		Alfentanil Fentanyl Morphine	Amitriptyline Fentanyl Imipramine	Amitriptyline Imipramine
Autoimmune	Azathioprine Mercaptopurine Methotrexate Siponimod		Cyclosporine Tacrolimus		Tacrolimus	



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1

Mild or no known drug-gene interaction

2

Moderate drug-gene interaction



Consider alternative medications



May require an increased dose



May require a reduced dose



May reduce efficacy



May increase adverse events

3

Serious drug-gene interaction: avoid/select alternative

	Thioguanine						
Cancer	Capecitabine Erdafitinib Fluorouracil Gefitinib Mercaptopurine Methotrexate Tamoxifen Thioguanine						
Cardiovascular	Carvedilol Clopidogrel Flecainide Mavacamten Metoprolol Nebivolol Propafenone Propranolol	Atorvastatin Fluvastatin Pitavastatin Pravastatin	Warfarin	Atorvastatin Fluvastatin Pitavastatin Pravastatin Rosuvastatin Warfarin	Warfarin	Atorvastatin Fluvastatin Pitavastatin Pravastatin Rosuvastatin Warfarin	Lovastatin Simvastatin
Endocrinology	Nateglinide						
Gastroenterology	Dronabinol Esomeprazole Meclizine		Dexlansoprazole Lansoprazole Omeprazole		Dexlansoprazole Lansoprazole Omeprazole		



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2

Moderate drug-gene interaction



Consider alternative medications



May require an increased dose



May require a reduced dose



May reduce efficacy



May increase adverse events

3

Serious drug-gene interaction: avoid/select alternative

Methotrexate
Metoclopramide
Ondansetron
Rabeprazole

Pantoprazole

Pantoprazole

Infection

Voriconazole

Efavirenz

Voriconazole

Efavirenz

Mental Health

Amoxapine
Amphetamine
Aripiprazole
Aripiprazole lauroxil
Atomoxetine
Brexiprazole
Desipramine
Diazepam
Fluoxetine
Fluvoxamine
Haloperidol
Iloperidone
Lofexidine
Nicotine replacement therapy
Nortriptyline
Paroxetine
Perphenazine
Pimozide

Amitriptyline
Citalopram
Clomipramine
Doxepin
Escitalopram
Imipramine
Trimipramine

Citalopram
Escitalopram

Amitriptyline
Bupropion
Citalopram
Clomipramine
Doxepin
Escitalopram
Imipramine
Methylphenidate
Olanzapine
Risperidone
Trimipramine

Amitriptyline
Clomipramine
Clozapine
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Moderate drug-gene interaction



Consider alternative medications



May require an increased dose



May require a reduced dose



May reduce efficacy



May increase adverse events

3

Serious drug-gene interaction: avoid/select alternative

Protriptyline
Quetiapine
Sertraline
Thioridazine
Venlafaxine
Viloxazine
Vortioxetine
Zuclopenthixol

Neurology

Brivaracetam
Clobazam
Deutetrabenazine
Diazepam
Donepezil
Fosphenytoin
Galantamine
Metoprolol
Phenytoin
Pitolisant
Propranolol
Tetrabenazine
Valbenazine
Venlafaxine

Amitriptyline

Amitriptyline

Amitriptyline

Other

Abrocitinib



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Moderate drug-gene interaction



Consider alternative medications



May require an increased dose



May require a reduced dose



May reduce efficacy



May increase adverse events

3

Serious drug-gene interaction: avoid/select alternative

Avatrombopag
Cevimeline
Elagolix
Eliglustat
Eltrombopag
Flibanserin
Lusutrombopag
Oral contraceptives

Respiratory

Salmeterol

Rheumatology

Azathioprine
Celecoxib
Flurbiprofen
Ibuprofen
Meloxicam
Methotrexate
Piroxicam
Tenoxicam

Urology

Darifenacin
Fesoterodine
Mirabegron
Tamsulosin
Tolterodine

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Serious drug-gene interaction: avoid/select alternative

Summary of Genetic Lab Data & Phenotypes

Gene	Allele Result	Phenotype Result
CYP3A4	*1A/*1B	Normal Metabolizer
CYP2D6	*1/*10	Normal Metabolizer
CYP2C9	*1/*1	Normal Metabolizer
CYP2C19	*1/*17	Rapid Metabolizer
SLCO1B1	*5/*15	Poor Function
CYP2B6	*5/*6	Intermediate Metabolizer
CYP3A5	*1/*3	Intermediate Metabolizer
DPYD	*1/*1	Normal Metabolizer
NUDT15	*1/*1	Normal Metabolizer
TPMT	*1/*1	Normal Metabolizer

This is a short summary of the full medication report. The patient's results are now accessible within the clinical decision support software, TreatGx and ReviewGx, and can be used with other clinical information to enable precision prescribing and medication management. The final genotype/phenotype call is at the discretion of the laboratory director. Medication changes should only be initiated at the discretion of the patient's healthcare provider after a full assessment.

Methods

The results meet stringent quality control metrics for DNA isolation and genotyping. SNPs are processed in an OpenArray platform. Each call has an estimated quality value >95%, based on the autocaller algorithm in the TaqMan® Genotyper software (ThermoFisher Scientific). Copy number calls are accepted when confidence values are >95%.

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Limitations

The annotations and interpretations provided in this report are based on scientific literature and do not take into account drug-drug interactions, medical conditions or other clinical factors that may affect medication response. Gene-drug interactions are ranked according to guidelines, level of evidence and clinical utility. The AttoDiagnostics pharmacogenetics platform, GenXys reports and TreatGx Clinical Decision Support are regularly updated. Current predicted phenotype and allele functionality may change in the future depending on new evidence. Phenotype annotations for CYP2C9 are based on total activity scores as defined by CPIC⁷⁹. Genetic test results and interpretation may be inaccurate for individuals who have undergone or are receiving non-autologous blood transfusion, tissue, or organ transplant therapies.

The report includes alleles of proteins involved in the metabolism of many medications. In rare cases, a variant that is not covered may be typed as *1 or other variants. In the case of pseudogenes and mutations in the untranslated regions of genes, incorrect allele typing may occur despite proper SNP detection. Preferential amplification of one allele over another present in the sample may also lead to incorrect genotyping.

Liability Disclaimer

This test was developed by ThermoFisher Scientific and its performance characteristics has been validated by AttoDiagnostics Ltd and verified on GenXys Health Care Systems. It has not been cleared or approved by the US Food and Drug Administration. The report is not a diagnostic test, and TreatGx is not a prescribing system. You should discuss your pharmacogenetic information with a physician or other health care provider before you act upon the pharmacogenetic information resulting from this report. The medication brand names are not an exhaustive list and do not include combination therapies. Not all medications in this report are included in the TreatGx or ReviewGx software or other GenXys derivative works.

DO NOT MAKE ANY CHANGES TO YOUR CURRENT MEDICATION(S) WITHOUT TALKING TO YOUR DOCTOR FIRST. While genetics is important, other factors also contribute to how you react to medications. The final choice of medication used will be based on your health care provider's professional judgement and may be different from what is recommended in this report. This test does not determine your risk of any health problem. It only evaluates select portions of your DNA that help predict how you may react to the medications covered.



P Agyirey-Kwakye, Laboratory Director, BS54287

24/Jan/2025 (GMT)

Date of Signature

Note: AttoDiagnostics is a leading precision healthcare genetic testing company. We provide research and diagnostic testing for brands, medical institutions and healthcare service providers including pharmacies to deliver life-changing personalised healthcare solutions.