WellLab

Sample Test Name
Date Of Birth: 04 OCT 1972
Sex: M
Lab ID: ######

Test Physcian
Dr. Edward Chan
11 - 1, Wisma Laxton,
Jalan Desa,Taman Desa, 58100.

INTEGRATIVE MEDICINE

Drug Class	Drug	Preferential Use	Use As Directed	May Have Significant Limitations	May Cause Serious Adverse Events
SSRIs	Citalopram			●	
	Escitalopram		●		
	Fluoxetine			●	
	Fluvoxamine			●	
	Paroxetine			●	
	Sertraline		●		
	Vilazodone		●		
TCAs	Amitriptyline		●		
	Clomipramine		●		
	Desipramine		●		
	Doxepin		●		
	Imipramine		●		
	Nortriptyline		●		
	Protriptyline		●		
	Trimipramine		●		
Other Antidepressants	Bupropion		●		
	Buspirone		●		
	Duloxetine		●		
	Levomilnacipran		●		
	Mirtazapine		●		
	Nefazodone		●		
	Trazodone		●		
	Venlafaxine			●	
	Vortioxetine		●		

WellLab

Sample Test Name
Date Of Birth: 04 OCT 1972
Sex: M
Lab ID: ######

Test Physcian
Dr. Edward Chan
11 - 1, Wisma Laxton,
Jalan Desa,Taman Desa, 58100.

Drug Class	Drug	Preferential Use	Use As Directed	May Have Significant Limitations	May Cause Serious Adverse Events
Atypical Antipsychotics	Aripiprazole		●		
	Asenapine		●		
	Clozapine		●		
	Iloperidone		●		
	Lurasidone		●		
	Olanzapine		●		
	Paliperidone		●		
	Quetiapine		●		
	Risperidone		●		
	Ziprasidone		●		
Typical Antipsychotics	Haloperidol		●		
	Perphenazine		●		
	Pimozide		●		
	Thioridazine		●		
	Zuclopenthixol		●		
Mood Stabilizers	Carbamazepine				●
	Divalproex		●		
	Lamotrigine				●
	Oxcarbazepine				●
	Phenytoin				●
	Valproic acid		●		
Norepinephrine Reuptake Inhibitor	Atomoxetine		●		
Benzodiazepines	Alprazolam			●	
	Clobazam		●		
	Diazepam		●		
Others	Dextromethorphan and Quinidine		●		
	Galantamine		●		
	Modafinil		●		
	Tetrabenazine		●		

WellLab

Sample Test Name
Date Of Birth: 04 OCT 1972
Sex: M
Lab ID: ######

Test Physcian
Dr. Edward Chan
11 - 1, Wisma Laxton,
Jalan Desa,Taman Desa, 58100.

May Cause Serious Adverse Events		
Drug Class	**Drug**	
Mood Stabilizers	Carbamazepine	Patient is likely to have at least one copy of HLA-B*1502 allele, therefore, has increased risk of developing serious skin reactions, such as Stevens-Johnson syndrome or toxic epidermal necrolysis (SJS/TEN), when treated with carbamazepine. Carbamazepine treatment should not be started in this patient unless the risk is clearly outweighed by the benefit. Patients who test positive for the HLA-B*1502 allele and have been taking carbamazepine for more than a few months without developing skin reactions have a low risk of becoming hypersensitive. HLA-B*1502-positive patients could also be advised to avoid related anticonvulsants, such as phenytoin, lamotrigine and oxcarbazepine. The genetic test for this condition is most applicable to patients of Han Chinese descent. If clinically indicated, patients of other Asian ethnicities could be advised to undergo HLA sequencing to assess their risk of carbamazepine hypersensitivity. Other HLA alleles have been shown to be associated with carbamazepine hypersensitivity in people of Caucasian and Japanese descent, in whom HLA-B*1502 is largely absent.
	Lamotrigine	Patient is likely to have at least one copy of HLA-B*1502 allele, therefore, has increased risk of developing serious skin reactions, such as Stevens-Johnson syndrome or toxic epidermal necrolysis (SJS/TEN), when treated with lamotrigine. The use of lamotrigine in this patient should be carefully considered. Patients who test positive for the HLA-B*1502 allele and have been taking lamotrigine for more than a few months without developing skin reactions have a low risk of becoming hypersensitive. HLA-B*1502-positive patients could also be advised to avoid related anticonvulsants, such as carbamazepine, phenytoin and oxcarbazepine. The genetic test for this condition is most applicable to patients of Han Chinese descent. If clinically indicated, patients of other Asian ethnicities could be advised to undergo HLA sequencing to assess their risk of lamotrigine hypersensitivity. Other HLA alleles have been shown to be associated with lamotrigine hypersensitivity in people of Caucasian and Japanese descent, in whom HLA-B*1502 is largely absent.
	Oxcarbazepine	Patient is likely to have at least one copy of HLA-B*1502 allele, therefore, has increased risk of developing serious skin reactions, such as Stevens-Johnson syndrome or toxic epidermal necrolysis (SJS/TEN), when treated with oxcarbazepine. The use of oxcarbazepine in this patient should be carefully considered. Patients who test positive for the HLA-B*1502 allele and have been taking oxcarbazepine for more than a few months without developing skin reactions have a low risk of becoming hypersensitive. HLA-B*1502-positive patients could also be advised to avoid related anticonvulsants, such as carbamazepine, phenytoin and lamotrigine. The genetic test for this condition is most applicable to patients of Han Chinese descent. If clinically indicated, patients of other Asian ethnicities could be advised to undergo HLA sequencing to assess their risk of oxcarbazepine hypersensitivity. Other risk factors may contribute to oxcarbazepine hypersensitivity in people of Caucasian and Japanese descent, in whom HLA-B*1502 is largely absent.
	Phenytoin	Patient is likely to have at least one copy of HLA-B*1502 allele, therefore, has increased risk of developing serious skin reactions, such as Stevens-Johnson syndrome or toxic epidermal necrolysis (SJS/TEN), when treated with phenytoin. The use of phenytoin in this patient should be carefully considered. HLA-B*1502-positive patients could also be advised to avoid related anticonvulsants, such as carbamazepine, lamotrigine and oxcarbazepine. This genetic test is most applicable to patients of Han Chinese descent. If clinically indicated, patients of other Asian ethnicities may be advised to undergo HLA sequencing to assess their risk of phenytoin hypersensitivity. There are insufficient data to associate HLA-B*1502 with phenytoin hypersensitivity in other ethnicities.

WellLab

Sample Test Name
Date Of Birth: 04 OCT 1972
Sex: M
Lab ID: ######

Test Physcian
Dr. Edward Chan
11 - 1, Wisma Laxton,
Jalan Desa,Taman Desa, 58100.

May Have Significant Limitations		
Drug Class	**Drug**	
SSRIs	Citalopram	Patient's SLC6A4 genotype is associated with increased risk of adverse effects, such as headache, nausea, drowsiness, agitation, sexual dysfunction or weight gain, when citalopram is used to treat major depressive disorder. Special note for Asian patients: the assay does not test for some SLC6A4 alleles that are mostly found in Asians. These untested alleles cannot be distinguished from the "S" alleles that are tested in this assay. The combined frequency of the untested alleles, whose functional impact is not well understood, is about 10% in Asians, whereas the combined frequency of the "S" alleles that can be correctly identified by this assay is about 80% in Asians. Please see the patient's genotype details at the end of the report.
	Fluoxetine	Patient's SLC6A4 genotype is associated with increased risk of adverse effects, such as headache, nausea, drowsiness, agitation, sexual dysfunction or weight gain, when fluoxetine is used to treat major depressive disorder. Special note for Asian patients: the assay does not test for some SLC6A4 alleles that are mostly found in Asians. These untested alleles cannot be distinguished from "S" alleles that are tested in this assay. The combined frequency of the untested alleles, whose functional impact is not well understood, is about 10% in Asians, whereas the combined frequency of the "S" alleles that can be correctly identified by this assay is about 80% in Asians. Please see the patient's genotype details at the end of the report.
	Fluvoxamine	Patient's SLC6A4 genotype is associated with increased risk of adverse effects, such as headache, nausea, drowsiness, agitation, sexual dysfunction or weight gain, when fluvoxamine is used to treat major depressive disorder. Special note for Asian patients: the assay does not test for some SLC6A4 alleles that are mostly found in Asians. These untested alleles cannot be distinguished from the "S" alleles that are tested in this assay. The combined frequency of the untested alleles, whose functional impact is not well understood, is about 10% in Asians, whereas the combined frequency of the "S" alleles that can be correctly identified by this assay is about 80% in Asians. Please see the patient's genotype details at the end of the report.
	Paroxetine	Patient's SLC6A4 genotype is associated with increased risk of adverse effects, such as headache, nausea, drowsiness, agitation, sexual dysfunction or weight gain, when paroxetine is used to treat major depressive disorder. Special note for Asian patients: the assay does not test for some SLC6A4 alleles that are mostly found in Asians. These untested alleles cannot be distinguished from the "S" alleles that are tested in this assay. The combined frequency of the untested alleles, whose functional impact is not well understood, is about 10% in Asians, whereas the combined frequency of the "S" alleles that can be correctly identified by this assay is about 80% in Asians. Please see the patient's genotype details at the end of the report.
Other Antidepressants	Venlafaxine	Patient's SLC6A4 genotype is associated with a decreased response to venlafaxine. Special note for Asian patients: the assay does not test for some SLC6A4 alleles that are mostly found in Asians. These untested alleles cannot be distinguished from the "S" alleles that are tested in this assay. The combined frequency of the untested alleles, whose functional impact is not well understood, is about 10% in Asians, whereas the combined frequency of the "S" alleles that can be correctly identified by this assay is about 80% in Asians. Please see the patient's genotype details at the end of the report.
Benzodiazepines	Alprazolam	This patient is likely to have increased plasma concentrations of alprazolam and reduced oral clearance of alprazolam at standard doses. Due to the limited clinical evidence, there are no specific recommendations on dose adjustment of alprazolam.

WellLab

Sample Test Name
Date Of Birth: 04 OCT 1972
Sex: M
Lab ID: ######

Test Physcian
Dr. Edward Chan
11 - 1, Wisma Laxton,
Jalan Desa,Taman Desa, 58100.

Use As Directed		
Drug Class	**Drug**	
SSRIs	Escitalopram	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
	Sertraline	
	Vilazodone	
TCAs	Amitriptyline	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
	Clomipramine	
	Desipramine	
	Doxepin	
	Imipramine	
	Nortriptyline	
	Protriptyline	
	Trimipramine	
Other Antidepressants	Bupropion	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
	Buspirone	
	Duloxetine	
	Levomilnacipran	
	Mirtazapine	
	Nefazodone	
	Trazodone	
	Vortioxetine	
Atypical Antipsychotics	Aripiprazole	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
	Asenapine	
	Clozapine	
	Iloperidone	
	Lurasidone	
	Olanzapine	
	Paliperidone	
	Quetiapine	
	Risperidone	
	Ziprasidone	

Sample Test Name
Date Of Birth: 04 OCT 1972
Sex: M
Lab ID: ######

Test Physcian
Dr. Edward Chan
11 - 1, Wisma Laxton,
Jalan Desa,Taman Desa, 58100.

Use As Directed (Continued)		
Drug Class	**Drug**	
Typical Antipsychotics	Haloperidol	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
	Perphenazine	
	Pimozide	
	Thioridazine	
	Zuclopenthixol	
Mood Stabilizers	Divalproex	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
	Valproic acid	
Norepinephrine Reuptake Inhibitor	Atomoxetine	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
Benzodiazepines	Clobazam	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
	Diazepam	
Others	Dextromethorphan and Quinidine	The most recent label for this drug should be consulted for up-to-date dosing guidelines and limitations.
	Galantamine	
	Modafinil	
	Tetrabenazine	

WellLab

Sample Test Name
Date Of Birth: 04 OCT 1972
Sex: M
Lab ID: ######

Test Physcian
Dr. Edward Chan
11 - 1, Wisma Laxton,
Jalan Desa,Taman Desa, 58100.

GENOTYPE/HAPLOTYPE DETAIL

PHARMACOGENETICS

This section lists the genetic markers that were tested. Results are organized by gene. Each gene has up to three sections, which may include a "Metabolizer Status" section, a "Genetic Result" section and an associated table with three columns. "Metabolizer Status" indicates the patient's predicted metabolizer status. "Genetic Result" indicates the haplotype, genotype or presence of a mutation. A genetic result that contains “ND” indicates that a haplotype could not be determined. “Unable To Report” indicates that no result can be provided.

In the tables, results are organized by gene in three columns:

1. “Gene/Locus” refers to the gene or intergenic region where the marker is located.
2. “Marker” refers to the unique identifier of the tested marker.
3. “Genotype” refers to the combination of nucleotides at a particular marker. The letter(s) on each side of the slash refer(s) to the two copies of the patient’s DNA. "Del" indicates a deletion of the nucleotide(s) in the patient's DNA. A genotype of “- -“ indicates that a result could not be obtained.

CYP1A2

GENE/LOCUS	MARKER	GENOTYPE
CYP1A2	rs762551	C/C

CYP2B6

Metabolizer Status: Extensive Metabolizer

Genetic Result: CYP2B6 *1/*4

GENE/LOCUS	MARKER	GENOTYPE
CYP2B6	rs2279343	A/G
CYP2B6	rs3211371	C/C
CYP2B6	rs3745274	G/G
CYP2B6	rs8192709	C/C
CYP2B6	rs28399499	A/A

CYP2C19

Metabolizer Status: Extensive Metabolizer

Genetic Result: CYP2C19 *1/*1

GENE/LOCUS	MARKER	GENOTYPE
CYP2C19	rs4244285	G/G
CYP2C19	rs4986893	G/G
CYP2C19	rs12248560	C/C
CYP2C19	rs28399504	A/A
CYP2C19	rs41291556	T/T
CYP2C19	rs56337013	C/C
CYP2C19	rs72552267	G/G
CYP2C19	rs72558186	T/T

CYP2C9

Metabolizer Status: Extensive Metabolizer

Genetic Result: CYP2C9 *1/*1

GENE/LOCUS	MARKER	GENOTYPE
CYP2C9	rs1057910	A/A
CYP2C9	rs1799853	C/C
CYP2C9	rs9332131	A/A

CYP2D6

Metabolizer Status: Extensive Metabolizer

Genetic Result: CYP2D6 *1/*1

GENE/LOCUS	MARKER	GENOTYPE
CYP2D6	rs16947	C/C
CYP2D6	rs769258	G/G
CYP2D6	rs1065852	C/C
CYP2D6	rs1080985	C/C
CYP2D6	rs3892097	G/G
CYP2D6	rs5030655	T/T
CYP2D6	rs5030656	AAG/AAG
CYP2D6	rs5030862	G/G
CYP2D6	rs5030863	C/C
CYP2D6	rs5030865	C/C
CYP2D6	rs5030867	A/A
CYP2D6	rs28371706	C/C
CYP2D6	rs28371725	G/G
CYP2D6	rs35742686	A/A
CYP2D6	rs59421388	C/C
CYP2D6	rs72549357	T/T

CYP3A4

GENE/LOCUS	MARKER	GENOTYPE
CYP3A4	rs4646438	A/A
CYP3A4	rs35599367	C/C
CYP3A4	rs55901263	C/C
CYP3A4	rs55951658	A/A
CYP3A4	rs67666821	A/A
CYP3A4	rs138105638	C/C

CYP3A5

Metabolizer Status: Non-Expressor

Genetic Result: CYP3A5 *3/*3

GENE/LOCUS	MARKER	GENOTYPE
CYP3A5	rs776746	C/C

DRD2

GENE/LOCUS	MARKER	GENOTYPE
DRD2	rs1799732	C/C

HLA-A

Genetic Result: HLA-A x/x

GENE/LOCUS	MARKER	GENOTYPE
HLA Region	rs1061235	A/A

HLA-B

Genetic Result: HLA-B *1502/x

GENE/LOCUS	MARKER	GENOTYPE
HLA Region	rs2844682	T/T
HLA Region	rs3909184	G/C

WellLab

Sample Test Name
Date Of Birth: 04 OCT 1972
Sex: M
Lab ID: ######

Test Physcian
Dr. Edward Chan
11 - 1, Wisma Laxton,
Jalan Desa,Taman Desa, 58100.

HTR2A

GENE/LOCUS	MARKER	GENOTYPE
HTR2A	rs7997012	A/G

HTR2A

GENE/LOCUS	MARKER	GENOTYPE
HTR2A	rs6311	A/G

HTR2C

GENE/LOCUS	MARKER	GENOTYPE
HTR2C	rs1414334	G/G
HTR2C	rs3813929	G/G

POLG

GENE/LOCUS	MARKER	GENOTYPE
POLG	rs113994095	G/G
POLG	rs113994097	G/G
POLG	rs113994098	G/G

SLC6A4

Genetic Result: SLC6A4 S/S

GENE/LOCUS	MARKER	GENOTYPE
SLC6A4	5-HTTLPR	S/S
SLC6A4	rs25531	--

UGT1A4

GENE/LOCUS	MARKER	GENOTYPE
UGT1A4	rs2011425	C/C