TEMPUS | NEUROLOGY & PSYCHIATRY

Gene and Drug Lists

DRUG LIST

The reference information provides classifications for the following list of medications. Providers should use their clinical judgment to select which medication they think is appropriate for their patient, based on their unique clinical history. This list is not exhaustive and these medications are only provided as support for clinician decision making.

ADHD stimulants and non-stimulants

	Adderall®	(Dextroamphetamine/Amphetamine)
	Azstarys®	(Serdexmethylphenidate & Dexmethylphenidate)
	Focalin®	(Dexmethylphenidate)
	Intuniv®	(Guanfacine)
	Kapvay®	(Clonidine)
	Nuvigil®	(Armodafinil)
	Provigil®	(Modafinil)
	Qelbree®	(Viloxazine)
	Ritalin®	(Methylphenidate)
	Strattera®	(Atomoxetine)
	Vyvanse®	(Lisdexamfetamine)

Antidepressants

MAOI	Emsam®	(Selegiline)
	Marplan®	(Isocarboxazid)
	Nardil®	(Phenelzine)
	Parnate®	(Tranylcypromine)
Other	Desyrel®	(Trazodone)
	N/A	(Nefazodone)
	Remeron®	(Mirtazapine)
	Spravato®	(Esketamine)
	Trintellix®	(Vortioxetine)
	Wellbutrin®	(Bupropion)
	Zulresso®	(Brexanolone)
	Auvelity®	(Dextromethorphan & Buproprion)
SNRI	Cymbalta®	(Duloxetine)
	Effexor®	(Venlafaxine)
	Fetzima®	(Levomilnacipran)
	Pristiq®	(Desvenlafaxine)
SSRI	Celexa®	(Citalopram)
	Lexapro®	(Escitalopram)
	Luvox®	(Fluvoxamine)
	Paxil®	(Paroxetine)
	Prozac®	(Fluoxetine)
	Viibryd®	(Vilazodone)
	Zoloft®	(Sertraline)
TCA	Anafranil®	(Clomipramine)
	Asendin®	(Amoxapine)
	Elavil®	(Amitriptyline)
	Norpramin®	(Desipramine)
	Pamelor®	(Nortriptyline)
	Sinequan®	(Doxepin)
	Surmontil®	(Trimipramine)
	Tofranil®	(Imipramine)
	Vivactil®	(Protriptyline)

Antipsychotics

First Generation	N/A	(Trifluoperazine)
	Haldol®	(Haloperidol)
	Loxitane®	(Loxapine)
	Mellaril®	(Thioridazine)
	Modecate®	(Fluphenazine)
	Navane®	(Thiothixene)
	Thorazine®	(Chlorpromazine)
	Trilafon®	(Perphenazine)

Second Generation	Abilify®	(Aripiprazole)
	Caplyta®	(Lumateperone)
	Clozaril®	(Clozapine)
	Fanapt®	(Iloperidone)
	Geodon®	(Ziprasidone)
	Invega®	(Paliperidone)
	Latuda®	(Lurasidone)
	Lybalvi®	(Olanzapine & Samidorphan)
	Nuplazid®	(Pimavanserin)
	Rexulti®	(Brexpiprazole)
	Risperdal®	(Risperidone)
	Saphris®	(Asenapine)
	Seroquel®	(Quetiapine)
	Vraylar®	(Cariprazine)
	Zyprexa®	(Olanzapine)

Anxiolytics

	Ativan®	(Lorazepam)
	Buspar®	(Buspirone)
	Halcion®	(Triazolam)
	Klonopin®	(Clonazepam)
	Librium®	(Chlordiazepoxide)
	Serax®	(Oxazepam)
	Tranxene®	(Clorazepate)
	Valium®	(Diazepam)
	Vistaril®	(Hydroxyzine)
	Xanax®	(Alprazolam)

Hypnotics

	Ambien®	(Zolpidem)
	Belsomra®	(Suvorexant)
	Dayvigo®	(Lemborexant)
	Lunesta®	(Eszopiclone)
	Quviviq®	(Daridorexant)
	Restoril®	(Temazepam)
	Rozerem®	(Ramelteon)

Mood stabilizers and anticonvulsants

	Depakote® & Depakene®	(Divalproex & Valproic Acid)
	Dilantin®	(Phenytoin)
	Epidiolex®	(Cannabidiol)
	Felbatol®	(Felbamate)
	Fycompa®	(Perampanel)
	Keppra®	(Levetiracetam)
	Lamictal®	(Lamotrigine)
	Lithobid®	(Lithium)
	Luminal®	(Phenobarbital)
	Lyrica®	(Pregabalin)
	Neurontin®	(Gabapentin)
	Onfi®	(Clobazam)
	Tegretol®	(Carbamazepine)
	Topamax®	(Topiramate)
	Trileptal®	(Oxcarbazepine)
	Vimpat®	(Lacosamide)
	Zonegran®	(Zonisamide)

Other psychotropics

	Austedo®	(Deutetrabenazine)
	Inderal®	(Propranolol)
	Ingrezza®	(Valbenazine)
	Lucemyra®	(Lofexidine)
	Nuedexta®	(Dextromethorphan & Quinidine)
	Revia®	(Naltrexone)
	Savella®	(Milnacipran)
	Xenazine®	(Tetrabenazine)

Medically Assisted Treatment (MAT)

	Subutex®	(Buprenorphine)
	Dolophine®	(Methadone)

Additional medications

Antiestrogen	Soltamox®	(Tamoxifen)
Antiplatelet	Plavix®	(Clopidogrel)
Calcineurin-inhibitor/ immunosuppressant	Prograf®	(Tacrolimus)
Non-nucleoside reverse transcriptase inhibitors (NNRTIs)	Sustiva®	(Efavirenz)
Opioid Analgesics	N/A	(Codeine)
	Ultram®	(Tramadol)
	Zohydro®	(Hydrocodone)
Triazoles	Vfend®	(Voriconazole)

GENE PANEL

The Tempus nP pharmacogenomic test reports on the following 13 validated genes and 8 Emerging Evidence genes.

Information about these genes and their relevance to pharmacogenomics can be found in a variety of publicly available sources, such as PharmGKB, PharmVar, ClinGen, GeneCards, and more.

⊕ Each **GENE** below is hyperlinked to the relevant content from **pharmGKB.org**.

Pharmacokinetic (PK) Genes
PK genes are involved in how the body metabolizes medicines.

CYP1A2	CYP2C9	CYP3A5
CYP2B6	CYP2D6	UGT1A4
CYP2C19	CYP3A4	UGT2B15

Pharmacodynamic (PD) Genes
PD genes are involved in how medications work on the body.

HTR2A	SLC6A4

Immunological Genes
These genes are involved in how the body's immune system reacts to medications.

HLA-A	HLA-B

Emerging Evidence Genes
The genes included here are emerging with new evidence arising frequently; however, the evidence does not reach a threshold to be considered clinically actionable. As a result, this information is provided only for informational purposes and is not intended for use in clinical decision making.

COMT	BDNF	HTR2C
MTHFR	CACNA1C	OPRM1
ABCB1	DRD2	

LEARN MORE

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SOURCES

The reference information surfaces classifications from the following publicly available sources.

Clear distinction between levels of evidence supporting the pharmacogenetic results and the interpretation of these results is provided. The ordering physician should interpret these sources in the context of their patient's full medical history.

U.S. Food and Drug Administration (FDA)

Over 250 medications have information concerning pharmacogenomic biomarkers in their FDA drug labeling. These range from dosing considerations and risk for adverse events to explicit contraindications.

Clinical Pharmacogenetics Implementation Consortium (CPIC)

CPIC is an NIH-funded organization founded to provide clinicians with evidence-based guidelines to support the implementation of PGx testing into clinical patient care. Its members include an international group of clinicians, implementation scientists, pharmacists, and researchers who collate, review, and curate evidence for PGx in various medical specialties.

Dutch Pharmacogenetics Working Group (DPWG)

The Dutch Pharmacogenetics Working Group (DPWG) is a professional organization formed in part to help make pharmacogenomics based drug recommendations, based on existing studies and literature. The group is multidisciplinary and contains chemists, pharmacists, pharmacologists, physicians, and toxicologists.

Primary Scientific Literature (PMID)

Clinical studies can be used to identify associations between certain genes and medications in a patient population. Such studies can include pharmacokinetic analyses, inducer/inhibitor studies, or other drug interaction studies. Studies are reported by their PubMed Identifier (PMID).

PharmGKB

The Pharmacogenomics Knowledgebase (PharmGKB) is an NIH-funded resource that provides information about how human genetic variation affects response to medications. PharmGKB collects, curates and disseminates knowledge about clinically actionable gene-drug associations and genotype-phenotype relationships.