

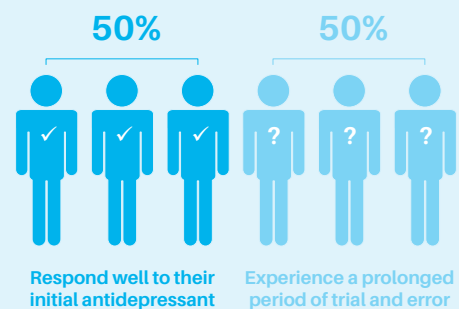


**DOUGLASS  
HANLY MOIR  
PATHOLOGY**

## Information for Doctors

# Pharmacogenomics (PGx) in mental health

Only 50% of patients with depression respond well to their initial antidepressant. For the remainder, a period of prolonged trial and error is often required to assess responses to each medication and dose.

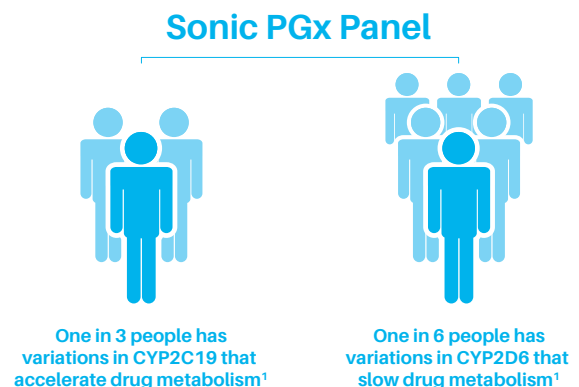


## Precision prescribing with the Sonic PGx Panel

The Sonic PGx Panel is a pharmacogenomic test that provides personalised guidance on medications, according to your patient's genetic variation. This gives you knowledge to help shortcut this trial-and-error process.

### How the Sonic PGx Panel works

The Sonic PGx Panel identifies variations in 10 genes that influence how well patients metabolise medications. This variation affects the exposure of the central nervous system (CNS) to a medication. Higher or lower exposure in the CNS can affect both the efficacy and the risk of side-effects. The genes that control the metabolising enzymes, CYP2C19 and CYP2D6, are important in determining exposure to antidepressants.



# Pharmacogenomics (PGx) in mental health

The Sonic PGx Panel is not only for medications that treat depression. It can be used to help predict the efficacy and tolerability of many psychoactive medications.

Below is a list of medications for which the Sonic PGx Panel offers guidance.

Antidepressants	Gene(s)
Amitriptyline	CYP2D6, CYP2C19
Citalopram	CYP2C19
Clomipramine	CYP2D6, CYP2C19
Desvenlafaxine	CYP2D6
Doxepin	CYP2D6, CYP2C19
Duloxetine	CYP2D6
Escitalopram	CYP2C19
Fluoxetine	CYP2D6
Fluvoxamine	CYP2D6
Imipramine	CYP2D6, CYP2C19
Mirtazapine	CYP2D6
Nortriptyline	CYP2D6
Paroxetine	CYP2D6
Sertraline	CYP2C19
Venlafaxine	CYP2D6
Vortioxetine	CYP2D6
Anti-psychotics	Gene(s)
Aripiprazole	CYP2D6
Brexipiprazole	CYP2D6
Chlorpromazine	CYP2D6
Haloperidol	CYP2D6
Olanzapine	CYP2D6, CYP1A2
Paliperidone	CYP2D6
Risperidone	CYP2D6
Anti-addictives	Gene(s)
Naltrexone	OPRM1
Anti-ADHD	Gene(s)
Atomoxetine	CYP2D6
Clonidine	CYP2D6
Dextroamphetamine	CYP2D6
Lisdexamfetamine	CYP2D6
Olanzapine	CYP2D6, CYP1A2
Benzodiazepines	Gene(s)
Clobazam	CYP2C19
Diazepam	CYP2C19

## Arranging a Sonic PGx Panel

- 1 Complete a Pharmacogenomic (PGx) panel request form or request the 'Sonic PGx Panel' using your local pathology request form. Maximise the value from the PGx test by providing information regarding your patient's clinical state and current or proposed medications.
- 2 Send your patient to any Douglass Hanly Moir Pathology collection centre for a blood test. Buccal swabs may be available at some collection centres; your patient will need to call ahead to confirm.
- 3 Sonic PGx Panel reports are delivered via Sonic Dx or courier, usually within 10 business days, following receipt of the sample in our laboratory.

## Cost

Medicare does not cover the cost of the Sonic PGx Panel and your patient will receive an invoice for \$197.\*

Please visit the website for further information on the Sonic PGx Panel, including an example report and other health conditions and medications for which the Sonic PGx Panel could be of assistance.

\*Correct at time of printing | August 2020

1. Gaedigk A, Sangkuhl K, Whirl-Carrillo M, et al. Prediction of CYP2D6 phenotype from genotype across world populations. *Genet Med.* 2017; 19(1):69

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