

## Media Release

13 October 2025

### Genetic testing helps Australians get on the right medication

Genomic Diagnostics today launched a national awareness campaign to encourage patients to undertake a simple DNA test to help prescribe the right medication, at the right dose from the outset.

Pharmacogenomic (PGx) testing is considered a game-changer for GPs when prescribing medication for patients with a range of conditions from mental health and pain management to cardiology and gastroenterological conditions.

For many Australians, finding the right medication has long been a matter of trial and error.

“The traditional clinical pathway was to wait and see if a patient responds to a medication or develops side effects before assessing whether a different medication might have been better in the first place,” Genomic Diagnostics Chief Pathologist Assoc/Prof Kym Mina said.

“PGx allows us to pre-emptively assess a patient and help to get their medicine right from the outset. Results from a PGx test can then guide prescribing decisions for life.”

A US study<sup>1</sup> found more than 50 per cent of patients didn’t respond to their first antidepressant.

“If we can prescribe the right medication up front, it means fewer visits to their doctor and fewer prescriptions that a patient has to pay for. That then potentially avoids hospital admissions for people experiencing chronic mental health episodes,” Assoc/Prof Kym Mina said.

“PGx testing means that finding the right medication does not have to be trial and error — evidence-based pathology results are used to help prescribe medication.”

Published Australian data<sup>2</sup> from a cohort of more than 5,400 patients showed that 96% of the patients had at least one clinically actionable genetic variant that could alter their response to a commonly prescribed medication.

International evidence shows patients prescribed medication using PGx guidance are 70 per cent more likely to achieve remission from conditions such as depression<sup>3</sup> while adverse drug reactions can be reduced by up to 30 per cent<sup>4</sup>.

Dr Rowan Purtell, a GP practising in Bright, Victoria, said: “Every time we prescribe a medication, it is essentially a ‘trial’. As practitioners, we are expected to weigh up the risks and benefits of pharmacological therapy, explain these to patients, and together make a joint decision about whether a medication is worth trialling for that patient. Often patients cycle through multiple options before finding one that works. Pharmacogenomic testing adds another layer to that decision-making process and essentially gives us more information to work with when recommending and choosing medications, thereby eliminating some of the guesswork and helping us prescribe more safely and effectively.”

A recent online survey found that a third of GPs surveyed were not using PGx testing and of those not using it, knowledge of the test was the main blocker to using it.<sup>5</sup>

To help address this, tomorrow, Assoc/Prof Mina and Genomic Diagnostics will deliver a training webinar for GPs to help build their knowledge and awareness of the test. Over coming weeks, patients will also see more information about PGx testing when they visit Healix' Collection Centres for their pathology tests.

In a world of health misinformation, where an increasing number of people are turning to the internet for health advice, PGx testing provides a personalised evidence base that can help improve the effectiveness of prescribed medication for patients.

Perth GP, Dr Stuart Arbuckle, said: "We use our experience and judgement to personalise our advice and recommendations for a patient, but it is often not until we have been using a medication for several months that it becomes clear if it is indeed a good choice for them, or if an alternative needs to be sought."

"Pharmacogenomics has been incredibly exciting to me and useful in helping me better understand the complexity of prescribing, and to better select the correct treatment, and more quickly, for my patients."

### **Backed by Australian guidelines**

Pharmacogenomic testing is supported by the Royal College of Pathologists of Australasia and other professional bodies.

Assoc/Prof Mina emphasised that PGx was not just for complex cases.

"More than 60 per cent<sup>6</sup> of patients seen in general practice are prescribed medications with known gene–drug interactions," she said.

"This includes medications for mental health, pain management, cardiology and gastroenterological conditions. PGx testing has the potential to improve everyday prescribing and save the health system millions of dollars<sup>7</sup>."

With private health rebates now available for PGx testing from two major health funds, there is growing recognition of its clinical and economic benefits.

**ENDS**

## About Genomic Diagnostics

Genomic Diagnostics, part of the Healius Pathology network, is Australia's largest non-government provider of genetic testing. The PGx Multi Test analyses how a patient's DNA influences their response to more than 100 medications across mental health, pain management, cardiology, gastroenterology and oncology.

## About the prevalence of health misinformation

Healius has previously commissioned research into health misinformation, which found that more than 50 per cent of Australians admitted to self-diagnosing a health condition using information sourced online. Overall, 43 per cent had read, seen or heard online information about specific medication(s), including side effects but this figure increased to 51 per cent of those aged between 18 and 24 years. Pathology results were rated the most trustworthy source of health information and advice. 95% of Australians have a high/moderate level of trust, and 65% high trust. Further information available [here](#).

## Why pharmacogenomic (PGx) testing matters

- 1 in 4 patients carries a genetic variant that requires an immediate change to medication or dosage.<sup>8</sup>
- More than 60% of patients in general practice are prescribed medicines with known PGx recommendations.<sup>6</sup>
- More than 50% of patients don't respond to their first antidepressant.<sup>1</sup>
- 70% more likely to reach remission with PGx-guided prescribing.<sup>3</sup>
- Adverse drug reactions cut by up to 30%, reducing avoidable hospitalisations.<sup>4</sup>
- AUD\$5,900+ saved per patient annually by optimising treatment and avoiding complications.<sup>7</sup>

## References

1. <https://pubmed.ncbi.nlm.nih.gov/17074942/>
2. [An analysis of allele, genotype and phenotype frequencies, actionable pharmacogenomic \(PGx\) variants and phenoconversion in 5408 Australian patients genotyped for CYP2D6, CYP2C19, CYP2C9 and VKORC1 genes | Journal of Neural Transmission](#)
3. <https://pubmed.ncbi.nlm.nih.gov/30520364/>
4. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)01841-4/abstract](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01841-4/abstract) .
5. PGx Market Study Analysis, Healius Pathology, September 2025
6. <https://bpspubs.onlinelibrary.wiley.com/doi/10.1111/bcp.14100>
7. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5764291/>
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For more information visit: [www.genomicdiagnostics.com.au/tests/pharmacogenomics](http://www.genomicdiagnostics.com.au/tests/pharmacogenomics)

## Media contact

Alex Sampson Phone 0400 065 667 [alex@89degreeseast.com](mailto:alex@89degreeseast.com)

## Healius Limited

ACN 064 530 516 | Level 22, Liberty Place, 161 Castlereagh Street NSW 2060

Phone 02 9432 9400 Fax 02 9432 9447

[healius.com.au](http://healius.com.au)