



**Agomelatine** (Valdoxan) is not recognised on the Sonic PGx report and this bulletin discusses reasons for its exclusion.

Agomelatine is an analogue of melatonin that is sometimes prescribed in the management of depression. It is not listed on the Pharmaceutical Benefits Scheme (PBS) and is only available in Australia as a private prescription.

A recent meta-analysis of randomised control trials has documented that using pharmacogenomic testing to inform the prescribing of antidepressants improves the rate of remission at 10–12 weeks.<sup>1</sup> Hence, clinicians may be interested to know the potential significance of a pharmacogenomic result for prescribing agomelatine.

### Sonic PGx panel and agomelatine

The pharmacogenomic panel provided by Sonic Genetics, Sonic PGx, does not include any reference to agomelatine.

There is little evidence that pharmacogenomic test results should inform the prescribing of agomelatine or its analogue, melatonin. There are no prescribing guidelines from the Clinical Pharmacogenetics Implementation Consortium (CPIC) or the Dutch Pharmacogenetics Working Group (DPWG), two reputable expert groups whose advice underpins our interpretations.

Agomelatine is largely metabolised by the CYP1A2 enzyme. Co-administration of agomelatine with potent CYP1A2 inhibitors, such as fluvoxamine and ciprofloxacin, is contraindicated, but there is no evidence that specific variants in the corresponding CYP1A2 gene have clinically significant effects on the agomelatine's pharmacokinetics. There is weak evidence that a variant in the ABCB1 gene may modify response to agomelatine. This observation is insufficient to justify a prescribing recommendation for a specific patient. Further information is available through pharmGKB.org.

### Prescribing advice for agomelatine

The Sonic PGx report does not provide guidance for prescribing agomelatine, as there is insufficient evidence to justify modifying the dose on the basis of specific variants in the genes on this panel.

The choice to prescribe agomelatine, and the dose selected, should be determined on the basis of other clinical considerations, including other medications the patient is or has been taking.

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**For further information, contact your local Sonic Healthcare laboratory, or Sonic Genetics on 1800 010 447 or [info@sonicgenetics.com.au](mailto:info@sonicgenetics.com.au).**

#### Reference

1. Bousman CA, Arandjelovic K, Mancuso SG, Eyre HA, Dunlop BW. Pharmacogenetic tests and depressive symptom remission: a meta-analysis of randomized controlled trials. *Pharmacogenomics*. 2019;20(1):37-47.