

RESEARCH

Genetic tests may help improve patients' response to tuberculosis medication (published in the May issue of the journal Personalized Medicine)

Paul van Helden and colleagues from the Stellenbosch University node of the CBTBR, have outlined the role that different genetic polymorphisms may play in determining how a patient will respond to the commonly used TB medication isoniazid. Isoniazid is an important, commonly used and relatively inexpensive first-line TB drug. It is metabolized in the liver at different rates in individuals, giving rise to 'fast, intermediate and slow acetylator' phenotypes. Previous work has linked these phenotypes to different genetic variants, primarily present in the NAT2 gene. The authors believe that the standard drug dose currently administered to patients may not be appropriate for certain people. Individualization of isoniazid therapy may help to prevent adverse drug reactions experienced by a small percentage of patients thought to be 'slow-acetylators' of the drug. Conversely, 'fast-acetylators' may not be receiving sufficient amounts of the drug to combat TB successfully, therefore increasing the likelihood of a relapse and development of drug resistance. They believe that on confirmation of the importance of the genetics of isoniazid metabolism 'a simple test to determine acetylator status would be desirable' and that 'these could be located at the same laboratories that currently perform diagnostics for TB.'

For access to the full article click link below.

<http://www.futuremedicine.com/doi/abs/10.2217/17410541.4.2.123>