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Perth Convention and Exhibition Centre

Nursing Considerations for Pharmacogenomics: DYPD Testing

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- DYPD Testing – Nursing Considerations

Background

- When is the test indicated?
- Access to test
- Past implications of not getting test done



DYPD Testing – Nursing Considerations

Patient Education

- Rationale for test
- How test is done
- Possible outcomes of results

DYPD Testing – Nursing Considerations

Interpretation of results from the report



DYPD Report

DPYD genotyping									
Specimen type:	EDTA blood								
Method:	Elucigene DPYD Genotyping Assay								
Result:	<table border="0"> <tr> <td>c.1679T>G</td> <td>Not Detected</td> </tr> <tr> <td>c.1905+1G>A</td> <td>Not Detected</td> </tr> <tr> <td>c.2846A>T</td> <td>Not Detected</td> </tr> <tr> <td>HapB3</td> <td>Not Detected</td> </tr> </table>	c.1679T>G	Not Detected	c.1905+1G>A	Not Detected	c.2846A>T	Not Detected	HapB3	Not Detected
c.1679T>G	Not Detected								
c.1905+1G>A	Not Detected								
c.2846A>T	Not Detected								
HapB3	Not Detected								
Interpretation:	None of the tested variant alleles were detected. This result predicts normal metaboliser status. Note that other variants that may affect DPYD gene function are not detected by this assay.								
Comments Based on this genotype, there is no indication to modify dose or therapy. Use label-recommended dosage and administration for fluoropyrimidine drugs.									
Test Information This multiplex ARMS assay detects all four DPYD variant alleles assessed to have a strong evidentiary link to fluoropyrimidine toxicity in the 2017 Update of the Clinical Pharmacogenetics Implementation (CPIC) Guideline (Amstutz et al. Clin Pharmacol Ther 2018; 103(2):210-6). Other variants that may affect DPYD function are not assessed. Individuals without a detected DPYD variant may still experience toxicity due to other genetic and non-genetic factors. Note that this assay does NOT test for the c.557A>G (p.Y186C) variant that is commonly observed in individuals of African ancestry. DPYD alleles tested (HGVS naming): +13 (c.1679T>G), +2A (c.1905+1G>A), c.2846A>T, HapB3 (c.[483+18G>A;1129-5923C>G;1236G>A]). The three tested variants of the HapB3 allele are presumed to occur in cis if detected concurrently. Dosage recommendations for fluoropyrimidine drugs are based on CPIC guidelines (www.pharmgkb.org/gene/PA145/guideline). Clinical factors, including concurrent medications, should be considered when using this result to determine drug dosage. Reference sequence: LRG_72211 Genetic test results may have significant medical implications for both the patient and relatives. Corroboration of this result by reference to other clinical or laboratory information or by repeat testing may be warranted. MELBOURNE PATHOLOGY NATA NO.:2133 Reported on 02-Jun-26 15:10									

DYPD Testing – Nursing Considerations

Considerations for some priority populations

- CALD
- First Nations People

Resources for First Nations People

Resource developed by:

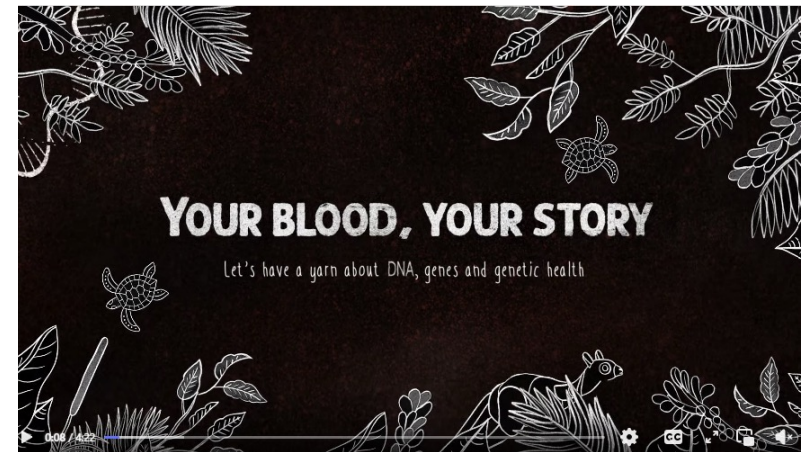
- Indigenous Genomics Health literacy team
- QIMRBerghofer
- QLD Genomics & Aboriginal and Torres Strait Islander champions

Starts a conversation about genetics

Provides information to inform Aboriginal and Torres Strait Islander consumers & HCPs on topics:

- DNA, genes, genetic health, genetic testing and precision medicine

<https://www.facebook.com/watch/?v=530394510961610>



- QandA

