Pharmacogenomics

The Wessex Genomics Laboratory Service (WGLS) is a combined service across two sites at Salisbury and Southampton (formerly Wessex Regional Genetics Laboratory and Molecular Pathology, respectively). The laboratories provide tests for haematological malignancies, solid organ cancers and pharmacogenomics, aligned with the National Genomics Test Directory. In addition, a select list of disease association tests are offered. These tests are not listed on the National Genomics Test Directory (NGTD).

Pharmacogenomics is the use of genetic and genomic information to tailor treatment to an individual based on their likely response to specific (groups of) medications[1].

The below assays test directly from peripheral blood (EDTA) and nucleic acids are not extracted or stored. For additional information on the WGLS policy on the retention and storage of samples, please contact the laboratory.

For any additional information or specific testing request, email wgls_cancergenomics@uhs.nhs.uk (Southampton).

Test indication	Sample type	WGLS Southampton
***DPYD* genotyping**		
	PB	• Colorectal cancer: ○ *DPYD* actionable variants (M1.7) • Breast cancer ○ *DPYD* actionable variants (M3.7) • Cancer of unknown primary ○ *DPYD* actionable variants (M226.3) • Solid tumour other (i.e. specific histology not listed elsewhere in the test directory) ○ *DPYD* actionable variants (M227.3) This is not an exhaustive list of all DPYD indications – please refer to the NGTD

***CYP2C19* genotyping for Clopidogrel**		
	PB	• Stroke patients <u>with strict eligibility:</u> ○ **This service is only available for new stroke patients that are not yet on clopidogrel.** You will be asked to confirm this on eQuest / paper referral form for each patient request. ○ Please note it is not currently recommended by NICE to retrospectively test patients who are already taking clopidogrel; these requests with be declined by the laboratory. We are also currently unable to test patients for CYP2C19 genotyping for other indications. <u>Please contact the laboratory for pricing and advice if required.</u>

[1] National Genomics Education Programme. Available at: <https://www.genomicseducation.hee.nhs.uk/genotes/knowledge-hub/introduction-to-pharmacogenomics/> Accessed 5th August 2026.