CHIMERISM TESTING AND ENGRAFTMENT MONITORING



PURPOSE OF CHIMERISM TESTING

Chimerism testing is used to confirm and monitor engraftment in patients who have received an allogeneic haematopoietic stem cell transplant (HSCT). Chimerism testing also allows for detection of early relapse and can guide immunotherapy management decisions



AVAILABLE TESTS

Test	Genetic profiling	Fluorescent in situ hybridization (FISH)
Method	Semi-quantitative PCR amplification of genomic regions containing short tandem repeats (STRs)	Application of fluorescent DNA probes specific to the X and Y chromosomes
Specimen requirements	Pre-transplant: Patient: Blood sample (EDTA) or buccal swab Donor: Blood sample (EDTA) or buccal swab	Pre-transplant: None
	Post-transplant: Patient: Blood/bone marrow sample (EDTA)	Post-transplant: Patient: Blood/bone marrow sample (EDTA or Lithium Heparin tube)
Limitations	Can be performed on sex-matched or mismatched HSCTs	Can only be performed in patients receiving a sex-mismatched HSCT
Turnaround time	72 hours from being received in the laboratory	4 days from being received in the laboratory
2022 Price (for upfront payment)	R1534.80 (pre- transplant testing) R1534.80 (post- transplant testing)	R3143.70



Fast Facts

- Chimerism testing is available at Ampath
- Genetic profiling can be requested using the mnemonic DNAPCR
- For FISH requests or other information, contact our Genetics team on 012 678 1354 or via email at chimerism@ampath.co.za.