



CYP2C19 genetic testing

This information is for patients undergoing CYP2C19 genetic testing following a stroke or transient ischaemic attack (TIA).

This test is designed to help guide the use of clopidogrel and is part of routine care in the NHS, ensuring you receive the best possible treatment.

What is clopidogrel?

Clopidogrel is a blood-thinning medicine that reduces the risk of blood clots, helping to prevent another stroke or TIA. It works by making your blood less sticky (sticky blood can lead to blood clots) and is commonly prescribed after certain types of strokes.

Why test the CYP2C19 gene?

Each person processes medicines differently, partly due to their genetic makeup. Around 1 in 4 people have a change in the “CYP2C19 gene” that can make clopidogrel less effective at preventing blood clots. A simple blood test can check whether you have this change. The result will help your doctor to decide whether clopidogrel is suitable for you to take following a stroke or TIA, or if an alternative treatment would be more effective.

What happens during testing?

Your hospital healthcare team will take a small blood sample that will be sent off to a specialist lab. The results will typically be ready within 7 days. Whilst waiting for your result, your stroke team may start you on clopidogrel. Once your genetic test results are available, they will review your treatment and make any changes if needed.

What happens if a change in the CYP2C19 gene is found?

If a change in the CYP2C19 gene is found, it means clopidogrel may not work as well for you. Your doctor may prescribe a different treatment that is better suited for you.

These CYP2C19 gene changes have no other impact on the body other than how it handles medicines.

What if no change is found?

If no CYP2C19 gene change is found, clopidogrel is likely to work well for you to prevent further strokes or TIAs, and you can continue taking it as prescribed.

Keeping your results

Your CYP2C19 test result is part of your NHS health record. It is a good idea to keep a copy of the result so that you can share it with any relevant healthcare professionals to help guide your treatment in the future.

Your privacy and safety

The CYP2C19 test analyses your DNA only to guide your treatment. Your genetic information is not stored long-term and will not be used for any purpose other than your care. All data is handled securely, in line with NHS confidentiality standards.

Questions?

If you have any questions about the test or your treatment, please contact your stroke team on: 0118 322 5411.

Further information

<https://www.nice.org.uk/guidance/htg724>

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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Next review due: February 2028