

# The prognostic utility of tests of platelet function for the detection of 'aspirin resistance' in patients with established cardiovascular or cerebrovascular disease: a systematic review and economic evaluation

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## Plain English summary

### **'Aspirin resistance' in patients with cardiovascular or cerebrovascular disease**

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## Plain English summary

Aspirin is prescribed for people who have had diseases of the heart or circulation, such as a heart attack, angina (chest pain) or stroke. Aspirin is thought to lower the risk of further disease by preventing platelets (a type of blood cell) from sticking together and forming blood clots. In some people aspirin does not seem to work as well as expected, and further heart attacks, strokes or other events are more common. Platelet function tests (PFTs) are a type of test that can assess how platelets are aggregating ('sticking' together) and whether or not taking aspirin reduces the aggregation. Depending on the amount of platelet aggregation, a person may be classified as 'aspirin resistant', meaning that their platelet aggregation might not be reduced sufficiently by aspirin.

The aim of this report was to gather all the studies that have looked at the relationship between platelet aggregation (assessed using a PFT) and the risk of having a cardiovascular event, and to see if 'aspirin resistance' is associated with an increased chance of future heart attacks or strokes. If patients at higher risk could be identified, then a change in their treatment might be considered to prevent future problems.

Fifty-eight studies were reviewed in detail and these indicate that, on average, some tests may have some value, but differences between the studies create a confused and inconsistent picture. As such, no firm conclusions about the value of specific PFTs for individual patients could be made. Therefore, this report makes recommendations for future research.



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