

## **Role of testing for inherited thrombophilia in women with a family history of VTE considering the combined oral contraceptive (COC)**

The above is a common indication for the request of thrombophilia testing. The decision on whether to prescribe the oral contraceptive should be based on clinical factors with thrombophilia testing adding little value.

The COC is considered to be relatively contraindicated in women with a family history of VTE in a first degree relative. The clinical circumstances surrounding the event are of major importance. If the event was either unprovoked, due to a minor precipitant (such as long haul plane travel or minor trauma) or associated with pregnancy or the COC, then this would be considered a strong contraindication. If the event was provoked by a non-hormonal precipitant (i.e. cancer, surgery or major trauma), especially in an older individual, then the COC may be considered if there were no alternative methods of contraception available. These recommendations are irrespective of the results of thrombophilia testing.

It is important to remember that half of patients with VTE will have negative thrombophilia test.

If thrombophilia testing is performed on a woman with a family history of VTE wanting to go on the OCP, negative results will give false reassurance if the results of thrombophilia testing in the relative are unknown, the relative has not been tested, or has been tested and found to be negative. This may lead to inappropriate prescription of the OCP in an individual at risk of VTE. Positive test results will not alter the clinical guidance as above.

Thrombophilia testing may be helpful if there is a known "severe" thrombophilic defect in the family that segregates with thrombosis. If the woman is tested and found to be negative, then this may allow the prescription of the OCP when it would otherwise be contraindicated. This approach would not be without a degree of risk as the risk of VTE will still be higher than the general population. This is because VTE has a multifactorial etiology, and is likely to be polygenic in familial cases. As such commonly identified "non-severe" thrombophilic defects represent only part of the clinical picture and should be viewed as such.

For these reasons, any requests for thrombophilia testing for the above indication will not be accepted.

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