

Request for Laboratory Investigation of Thrombophilia

1) When should investigation occur?

THESE ARE NOT EMERGENCY TESTS! WHENEVER POSSIBLE, SAMPLING FOR THESE ASSAYS SHOULD BE DEFERRED UNTIL THE PATIENT IS ASYMPTOMATIC, OFF ANTI-COAGULANT THERAPY, AND NOT PREGNANT. ☎

Although molecular genetics and biochemical assays (marked *) can be done at any time relative to the thrombotic event and its treatment, functional clot-based assays (marked ❖) are affected by the thrombotic event itself, its treatment, and during pregnancy.

2) Who should be investigated?

Consider investigating anyone with thrombosis and at least one of the following --

- first event prior to age 45
- recurrent, unexplained events
- both arterial and venous thrombosis
- both thrombosis and fetal loss(es)
- family history
- unusual site(s)
- warfarin skin necrosis
- neonatal purpura fulminans

Please note: in older people with typical arterial or venous thrombotic events, because of the very low “pre-test likelihood” of some measurable thrombophilic states, laboratory investigation identifies more FALSE positives than TRUE positives. Thus, testing should be tailored according to the criteria given above. ☎

3) What tests will be done?

Asymptomatic Family Members: documented family trait(s) only

Those identified in 2) of all ages:

- Activated Protein C Resistance: Factor V Leiden * - if negative, APC-R Ratio ❖
- Prothrombin 20210A *
- Fasting plasma homocysteine *
- Anti-Cardiolipin Antibodies (ACLA) *
- Lupus Anticoagulant (LAC) studies ❖

Those identified in 2) who are < 45 years old:

- Protein C ❖
- Protein S ❖
- Antithrombin ❖

☎ ***please discuss possible exceptions with the medical director of the Special Coagulation Laboratory at Royal University Hospital, Saskatoon (655-2171).***