

NHSBT H&I Update to users for the investigations for HIT and Vaccine Associated Thrombosis and Thrombocytopenia (VATT) / Vaccine Induced Prothrombotic Immune Thrombocytopenia (VIPIT)

Post vaccination thrombosis investigations are carried out using assays that are intended for the diagnosis of heparin induced thrombocytopenia (HIT) with PF4/Heparin as the target.

Our default investigation for HIT would involve screening by an ELISA which may be supplemented with a subsequent platelet function test performed by flow cytometry.

If your referral is for VATT/VIPIT please refer to the available guidelines:

<https://b-s-h.org.uk/about-us/news/guidance-produced-by-the-expert-haematology-panel-ehp-focussed-on-vaccine-induced-thrombosis-and-thrombocytopenia-vitt/>

For VATT/VIPIT investigations we will investigate by ELISA and if this is positive the functional assay will also be used.

We have seen a typical result pattern that aids the confirmation of VIPIT/VATT which is a positive ELISA, followed by a positive functional assay. The HITAlert assay result pattern is different to what would be expected for a traditional HIT reaction pattern.

Diagnosis	Activation with serum + platelets	Activation with serum + platelets + Heparin	Activation with serum + platelets + excess Heparin
HIT	Negative	Positive	Negative
VATT/VPITT	Positive	Positive (reduced)	Negative

VATT/VIPIT investigations where ELISA is positive but negative in the functional assay need further investigation to determine the clinical significance.

Please also note that if the patient is undergoing treatment with Ivlg at the time of sampling this may inhibit the activation of platelets in the HITAlert functional assay.

Please also refer to the publication in NEJM:

<https://www.nejm.org/doi/full/10.1056/NEJMoa2105385>

Approved by Dr Anthony Poles, Head of Laboratory H&I Filton on 25/05/21