September 20, 2019

HEMATOLOGY

CHANGE in TESTING for HEPARIN-INDUCED THROMBOCYTOPENIA (HIT) ANTIBODIES

Date effective: October 7, 2019

Background Information: HIT remains a clinicopathological diagnosis. Clinicians are required to complete the 4T score on the HIT lab requisition (H.I.T screen), which will be used to calculate pre-test probability. Lab result should be interpreted with using the 4T's probability score.

Change in Test Procedure:

As of October 7, 2019, Shared Health Haematology Lab will change the assay method used for detecting HIT antibodies from the particle gel immunoassay (ID-PaGIA Heparin/PF4 Antibody Test) to the HemosIL HIT-Ab (PF4-H) latex immunoassay.

- Sample requirement: **A single 1.8 mL blue-top citrate tube** (or frozen plasma sent on dry ice) **AND a 10 mL red top serum tube**.
- Unlike the qualitative gel assay, the new HemosIL-Ab results are quantitative and show increasing specificity for HIT at higher result values.
    - The test sensitivity and specificity are 100% and 76% respectively at the 1.0 U/mL cut-off; 95% and 99% respectively when using cut-off value of 4U/ml.
    - The graded classification of positive results (weak 1.0-4.9 U/ml; moderate 5.0-15.9 U/ml, and strong >=16 U/ml) together with the pre-test 4T' probability score are recommended to evaluate post-test HIT probability.

References/Resources:

- *Althaus K et al, Thromb Res. 2013 Mar;131(3):e85-90.*
- *Warkentin TE et al. Thromb Res. 2017 May; 153:108-117.*

Patient Impact: The following aspects of the HIT assay remain **unchanged**:

- Tests are run on Monday, Wednesday, and Friday at St. Boniface Haematology lab.
- Positive results will be sent to McMaster University for SRA assay, the gold standard to confirm.
- STAT testing requires approval from Hematopathologist on Haemostasis service.

Contact Information:

Dr. Ping Sun, Hematopathologist, Medical Director, Hematology and Immunology, Shared Health Manitoba (ph: 204-787-4682) psun@sharedhealthmb.ca

Dr. Charles Musuka, Hematopathologist, Medical Director, Transfusion Medicine, Shared Health Manitoba (ph: 204-237-2471) cmusuka@sharedhealthmb.ca