UCDMC Primary Decision Support Tool for Suspected Heparin-Induced Thrombocytopenia

*A 4T score of 3 has been considered as HIT unlikely in some settings and no need to initiate a DTI. A PF4 test can be considered if the result alters management.

OD = Optical Density
Definitions of “positivity” quantifications vary.

** SRA assay may be considered if the patient is anticipated to require procedures preferring the use of heparin (i.e. Cardiopulmonary bypass)

***If the risk of major bleeding exceeds the risk of thrombosis, surveillance for thromboembolism should be considered and the DTI started when feasible.

+ Consider Hem/Onc consult of Anticoagulation service assessment to requesting an ELISA assay or SRA assay.
Thrombocytopenia or > 50% drop in platelets in a patient who is, or has a recent history of receiving heparin or LMWH

Evaluate probability of HIT using ‘4Ts’ risk score

High probability of HIT (4T ≥ 6)*

Further testing may not be necessary. Proceed with treatment using an alternative anticoagulant (DTI).

High or intermediate probability of HIT (4T 4-5)*

Discontinue any heparin or LMWH, initiate an alternative anticoagulant e.g. direct thrombin inhibitor (DTI) therapy***

Consider HIT ELISA assay

Low probability of HIT (4T ≤ 3)

Heparin, LMWH, or fondaparinux may be continued, or therapy may be withheld at clinicians’ discretion.

Consider alternative diagnosis. Watch and repeat HIT evaluation if other causes not apparent. Monitor for thrombosis+

Strongly positive PF4 test AND High probability of HIT

HIT probability high enough to warrant continued alternative management. If there is a strong desire to avoid alternative anticoagulation, a SRA test can be considered

Weakly positive or indeterminate PF4 test (OD <1) AND High probability 4T score for HIT

Consider functional platelet assay (Serotonin Release Assay) if the result will change the management approach, or continue alternative anticoagulation if warranted. ** +

Strongly positive (OD > 1), weakly positive or indeterminate PF4 test AND Intermediate probability of HIT

Negative PF4 test AND High probability of HIT

Consider alternative diagnosis; HIT indeterminate. Assess risk and benefit of using a DTI or fondaparinux. Can repeat the PF4 assay in a few days+

Negative PF4 test AND Intermediate probability of HIT

Consider alternative diagnosis; can consider restarting heparin/LMWH or consider fondaparinux. Another option is to continue DTI/Fondaparinux and repeat the PF4 assay. Monitor platelet count and signs of thrombosis+

Approved by UCDHS Pharmacy and Therapeutics Committee 5/2017.