Clinical Laboratory Test Update

Effective Date: Wednesday, May 24, 2023

PFA-100 Platelet Function

Effective Wednesday, May 24, 2023, Memorial Hospital Central Laboratory will discontinue PFA-100 Platelet Function Testing. This test will be replaced by TEG Platelet Mapping.

TEG Platelet Mapping

Platelet mapping is a special TEG assay to measure the effects of antiplatelet drug therapy on platelet function. Platelet mapping will provide a baseline assessment of platelet function (MA), a fibrin clot test, and platelet inhibition/aggregation at two main pathways: ADP (Plavix, Brilinta, Effient, etc) and AA (Aspirin/NSAIDs). TEG 6s was the only device able to distinguish between four established drug concentration zones.

Antiplatelet drugs, whose efficacy can be tested, include the following:

- ADP receptor inhibitors such as clopidogrel and ticlopidine
- Arachidonic acid pathway inhibitors such as aspirin
- GpIIb/IIIa inhibitors such as abciximab, tirofiban and eptifibatide

TEG PLATELET MAPPING

TEST NAME	DRUGS OF ABUSE SCREEN
Lab Test Code	LAB2027
Acceptable Specimen	Sodium Heparin (Dark Green, No Gel) Note: Discard Tube Required
Specimen Collection	To ensure accurate results, draw a discard tube first: • Clear top tube, No Additive • Sodium Citrate (Blue) **OR** • Syringe, No Additive <u>Note:</u> Serum (Gold and Red) tubes are not recommended for discard draw as these can contain clot activators.
Specimen Stability	Room Temperature: 2 hours Refrigerated: Unacceptable Frozen: Unacceptable
Performed	Sunday through Saturday
CPT	85576

REFERENCE INTERVALS

TEST NAME	REFERENCE INTERVAL
HKH-MA (Kaolin w/ Heparinase Max Amplitude)	53 – 68 mm
ActF-MA (Max Amplitude):	2 – 19 mm
ADP-MA (Max Amplitude)	45 – 69 mm
ADP % Inhibition	0 - 17 %
ADP % Aggregation	83 – 100 %
AA-MA (Max Amplitude)	51-71 mm
AA % Inhibition	0-11 %
AA % Aggregation	89-100 %

RESULT COMMENTS

ADP-MA

ADP MA < 35 mm, significant platelet dysfunction.
ADP MA 35 - 45 mm, moderate platelet dysfunction.
ADP MA < 45 mm, platelet inhibition of ADP pathway. Consider the presence of drugs including a P2Y12 ADP receptor inhibitor (i.e. Plavix, Brilinta, Effient), a GPIIb/IIIa inhibitor (i.e. Integrilin & Aggrastat) Persantine or Pletal. Genetic predisposition, dietary supplements and underlying pathology are also potential causes.

AA-MA

AA MA < 51 mm, platelet inhibition of Thromboxane A2 (Arachidonic Acid) pathway. Consider presence of Aspirin or other NSAIDs. Consider platelet transfusion or DDAVP if patient is bleeding. Clinical correlation required.

AA% INHIBITION

AA Inhibition 50% - 100%, therapeutic if patient taking Aspirin (ASA).
AA Inhibition 0% - 49.9%, sub-therapeutic if patient taking Aspirin (ASA).
Clinical correlation required.

For any questions about this test update, please contact:
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