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| Subject: | ROMI PANEL (RULE OUT MYOCARDIAL INJURY PROFILE) | | | | |
| Approved by: Laboratory Executive Director, Ed Hughes (electronic signature) | | | | | |
| Approved by: Laboratory Medical Director, Mark P. Burton, MD (electronic signature) | | | | | |

ROMI PANEL

(RULE OUT MYOCARDIAL INJURY PROFILE)

Cardiac troponin is the established biomarker in the diagnosis of acute coronary syndrome (ACS). Current consensus guidelines recommend use of the 99th percentile of the reference range for the employed assay as suggestive of myocardial injury.

Typically in ACS, cardiac troponin I is detectable in the bloodstream 4-6 hours after onset of chest pain with a peak at 12-16 hours, remaining elevated for several days thereafter.

Current assays are more sensitive than their predecessors; therefore minor elevation of troponin I may occur more frequently. While any troponin concentration above the 99th percentile of the reference range is abnormal, it may be difficult to interpret analytically significant yet clinically minor elevations. Conditions other than ACS resulting in myocardial cell damage can cause elevated troponin levels. These include demand ischemia (sepsis, tachyarrhythmias), direct myocardial damage (myocardial contusion, DC cardioversion, myocarditis, cardiac surgery), myocardial strain (heart failure, pulmonary hypertension, pulmonary embolism), and cardiac toxins.

Troponin I Reference Ranges

| | Biosite Method performed in E.D. Lab | ECI Method performed in Core Lab |
|---|---|--|
| Reference Range: Upper Reference limit for healthy individuals | <0.05 ng/mL | <0.034 ng/ml |
| Diagnostic AMI cut-off | 0.40 ng/mL | 0.12 ng/mL |
| Additional Interpretative Data: | | 0.034-0.12 ng/mL Suspicious for myocardial injury. Serial measurements may be necessary to confirm or exclude the diagnosis of acute coronary syndrome |

Testing Protocol:

1. Upon presentation of patient with complaint of chest pain, order ROMI panel. This is the onset,
2. For ROMI Panels in the Emergency Department the onset will be performed by the Biosite method in the E.D. Lab. A critical troponin (>0.4 ng/mL) will be called to the appropriate care giver. Additional samples will be drawn at 3 hr., 6 hr., and 12 hrs. and sent to the Core Lab for analysis.
3. For Inpatient ROMI Panels (not ordered in the Emergency Department) the onset, 3 hr, 6 hr, and 12 hr will all be performed in the Core Lab using the ECI method. A critical troponin (>0.12 ng/mL) is only called and faxed with the first occurrence.
4. Changes in results should be interpreted based on method.