

Troponin T, High Sensitivity (hs-TnT)

April 20, 2022

Effective April 25, 2022, Pacific Diagnostic Laboratories (PDL) will be offering **Troponin T, High Sensitivity (LAB139) hs-TnT** and will be *discontinuing Troponin I (LAB747)*.

Key Highlights:

- ⇒ hs-TnT is primarily intended for use in the evaluation of suspected acute coronary syndrome
- ⇒ hs-TnT values are reported in whole numbers, unit of measure is ng/L, reference ranges are gender based:
 - Female <10 ng/L
 - Male <12 ng/L
- ⇒ hs-TnT specimen requirement is plasma (lithium heparin/green top)

TEST UTILIZATION

ACUTE CARE:

High sensitivity troponin is primarily intended for use in the evaluation of suspected acute coronary syndrome in inpatient and emergency department settings.

- The Roche Elecsys® Troponin T assay can detect cardiac troponin in serum within one hour of acute myocardial infarction (AMI).
- hs-TnT levels >99th percentile of the population are indicative of myocardial injury, and a serial testing algorithm is essential in differentiating AMI from chronic and/or non-MI elevations.
- hs-TnT is used in concert with electrocardiogram results and clinical risk assessment within a hospital system, population-specific accelerated diagnostic protocol (ADP) for acute cardiac care.
- hs-TnT reference ranges were selected to provide a negative predictive value of > 99%, effectively ruling out AMI and 30-day major adverse cardiac events.

Troponin T, High Sensitivity (hs-TnT):

- Primarily used in acute cardiac care
- Elevated in chronic cardiac injury
- Varied uses as cardiac biomarker

OUTPATIENT SETTING:

Outpatient practice patterns for use of hs-TnT vary considerably.

- Standardized, evidence-based professional society guidelines are still emerging to inform therapeutic decision making for individuals with chronic elevations of hs-TnT.
- hs-TnT is cardiac specific, but not disease specific.
- Chronic elevations of hs-TnT may be seen in a variety of conditions associated with chronic myocardial injury including congestive heart failure, chronic renal failure, and diabetes to name a few.
- No critical value is defined for use in the outreach setting.
- hs-TnT value of >100 ng/L is highly suggestive of acute myocardial injury in the appropriate setting.

Please see additional references included on the second page of this notice.

FOR MORE INFORMATION PLEASE CONTACT PDL CLIENT SERVICES AT 805-879-8100

Troponin T, High Sensitivity (hs-TnT)

April 20, 2022

ADDITIONAL INFORMATION AND REFERENCES

PDL is utilizing the Roche Diagnostics Elecsys® 5th generation Troponin T High Sensitivity (hs-TnT/hs-cTnT) test. The Siemens Troponin I assay has been discontinued due to the availability of the higher sensitivity Troponin tests.

ADDITIONAL REFERENCES:

- Roche Diagnostics: <https://streamingmedia.roche.com/channel/Gen+5+hsTnT/236147843>
- Ferro et al., Practice pattern of use of high sensitivity troponin in the outpatient settings. Clinical Cardiology 2020. <https://onlinelibrary.wiley.com/doi/full/10.1002/clc.23482>
- Incorporation of Biomarkers Into Risk Assessment for Allocation of Antihypertensive Medication According to the 2017 ACC/AHA High Blood Pressure Guideline: <https://www.ahajournals.org/doi/epub/10.1161/CIRCULATIONAHA.119.043337>
- The Cottage Health/PDL Accelerated Diagnostic Protocol (ADP) can be made available upon request.

ORDERABLE TEST CODE DETAILS FOR OUTREACH

NEW TEST					
Test Name	Order Code/Interface Code	Test Code	Order LOINC	CPT	CDM
Troponin T, High Sensitivity	LAB139/LAB139	1230119078	67151-1	84484	30101344
Result name		Result Code	Result LOINC	Insurance Price	
Troponin T, High Sensitivity		1808154	67151-1	\$51.38	
Troponin Delta		1230018823			
Specimen Requirements					
Specimen Type: Plasma		Transport Temperature: Freeze			
Specimen Container: Green Top Lithium Heparin		TAT: 24 hours			
Specimen Handling: Centrifuge and transfer separated heparin plasma to a plastic transport tube.					

DEACTIVATED TESTS		
Test Name	Order Code/Interface Code	Test Code
Troponin I	LAB747/CTNI	1230100804
CK, Total w/ Reflex to CKMB and Troponin	LAB10103/LAB10103	1230116395

FOR MORE INFORMATION PLEASE CONTACT PDL CLIENT SERVICES AT 805-879-8100