Orderable - TNT

Turnaround Time: 4 hours

STAT: 1 hour

Alternate Name(s):
- hs-TnT
- Troponin T - High sensitivity
- TNT - High sensitivity

Specimen:

<table>
<thead>
<tr>
<th></th>
<th>Adult</th>
<th>Pediatric</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.5 mL Green (Lithium Heparin) top Vacutainer tube</td>
<td>2-10 years: 3 mL Green top tube</td>
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</tbody>
</table>

Reference Ranges:

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
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<tbody>
<tr>
<td></td>
<td>≤14 ng/L</td>
<td>≤9 ng/L</td>
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</table>

Interpretive Comments:

Order hs-TnT on patients with symptoms of myocardial ischemia to diagnose AMI. Reference limit is based on 99th percentile value in healthy population. hs-TnT may be significantly elevated in non-ACS patients. Evaluate hs-TnT results in the clinical context and not in isolation.

Comments:

Please note that the hs-TnT reporting units are ng/L.
See Algorithm Details:

**Acute Coronary Syndrome (ACS) Clinical Algorithm**

Using the High-Sensitivity Cardiac Tropinin T (hs-TnT) on Chest Pain Patients

- **Clinical Findings - ECG**
  - Suspected ACS
  - Ischemic ECG Changes
  - ACS

- **hs-TnT at Presentation (t=0 hr)**
  - Chest Pain Onset >3 hr AND hs-TnT ≤5
  - Chest Pain Onset <3 hr hs-TnT 0-51 OR Chest Pain Onset >3 hr hs-TnT ≤51
  - Chest Pain Onset Anytime hs-TnT ≥52

- **hs-TnT 2 hrs after presentation (t=2 hr)**
  - Chest Pain Onset Anytime 2 hr hs-TnT <9 (Females) OR 2 hr hs-TnT ≤14 (Males) AND 0 to 2 hr |Delta| <4
  - Other Results
  - ACS Not Ruled Out
    - Consider repeating hsTnT and/or alternative causes for troponin elevation. Consult cardiology if clinically appropriate
  - ACS Likely

- **ACS Unlikely**

- **ACS Not Ruled Out**

**Additional Notes:**
- Consider repeating hsTnT at 4hr (t=4hr) if “ACS Not Ruled Out” and use 2 hrs (t=2hr) cut-off absolute values & deltas to rule-in or rule-out ACS
- Chest Pain Onset refers to the time between onset of chest pain & presentation to the Emergency Department
- t-10 refers to the time of draw of blood for hsTnT at presentation
- Approved by the LHSC working group of Cardiology, Emergency Medicine, & Pathology and Laboratory Medicine
- Modified Jan 11, 2022