






High Sensitivity Troponin FAQ

<i>Question</i>	<i>Answer</i>
1) <i>What is high-sensitivity troponin test (hsTnl)?</i>	The high-sensitivity troponin I test (hsTnl) is the latest generation cardiac enzyme test that allows for precise detection of very low levels of troponin I (Tnl). It can help to diagnose heart attacks more quickly, to distinguish those with more stable chronic heart disease, and to “rule out” heart damage.
2) <i>What is the difference between the old troponin test and hsTnl?</i>	Similar to the old Tnl test, hsTnl has high specificity for the cardiac form of troponin. Unlike the old test, hsTnl detects very low concentrations of Tnl, even those found in most healthy people. Also, very small changes in Tnl concentration (“delta” Tnl) can be reliably detected by the hsTnl test.
3) <i>What is the difference between the new hsTnl orders?</i>	<p>The new orders are designed for different clinical settings: <u>TROPONIN I, HIGH SENSITIVITY W REFLEX TO REPEAT [84484L]</u> triggers an immediate measurement and one in two hours. It is generally the best choice for the initial evaluation of patients with chest pain. Note that a separate sample must be collected for the second measurement! Besides the two Tnl measurements, a “delta” Tnl will be reported with the second hsTnl result.</p> <p><u>TROPONIN I, HIGH SENSITIVITY [84484M]</u> is a stand-alone test suitable for tracking Tnl trends in patients who have already been diagnosed. It may sometimes be appropriate in Urgent Care.</p>
4) <i>What is the “delta” Tnl? What is its clinical significance?</i>	The “delta”Tnl is defined as the change between two successive hsTnl measurements. A large “delta” can signify the presence of acute cardiac injury. A small “delta” suggests either a healthy heart or stable chronic heart disease.
5) <i>Is the 2nd Troponin the same as delta Tnl?</i>	No, the second troponin is just another Tnl concentration measured at a different point in time (ideally between two and three hours later). The delta Tnl is reported along with the second hsTnl result.
6) <i>What hsTnl test will I order for Q4 measurement?</i>	Order TROPONIN I, HIGH SENSITIVITY [84484M] with “Timing Critical” priority set to 4 hours, 8 hours, 12 hours, and so on.

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<p>7) <i>What happens if a serum sample is drawn for hsTnI?</i></p>	<p>Lithium heparin (PST4) is the preferred sample for hsTnI measurement. Serum produces slightly higher results. Lithium heparin plasma and serum samples should not be used interchangeably.</p> <p>Reference interval – 99th percentile url: Access 2</p> <table border="1"> <thead> <tr> <th>Sample Type</th> <th>Population</th> <th>Access hsTnI</th> <th>AccuTnI+3 (A2)</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Lithium heparin plasma</td> <td>Overall N = 1089</td> <td>17.5 pg/mL</td> <td>20 pg/mL (0.02 ng/mL)</td> </tr> <tr> <td>Female N = 595</td> <td>11.6 pg/mL</td> <td>N/A</td> </tr> <tr> <td>Male N = 494</td> <td>19.8 pg/mL</td> <td>N/A</td> </tr> <tr> <td rowspan="3">Serum</td> <td>Overall N = 1088</td> <td>18.2 pg/mL</td> <td>20 pg/mL (0.02 ng/mL)</td> </tr> <tr> <td>Female N = 595</td> <td>11.8 pg/mL</td> <td>N/A</td> </tr> <tr> <td>Male N = 493</td> <td>19.7 pg/mL</td> <td>N/A</td> </tr> </tbody> </table> <p style="text-align: right;"></p>	Sample Type	Population	Access hsTnI	AccuTnI+3 (A2)	Lithium heparin plasma	Overall N = 1089	17.5 pg/mL	20 pg/mL (0.02 ng/mL)	Female N = 595	11.6 pg/mL	N/A	Male N = 494	19.8 pg/mL	N/A	Serum	Overall N = 1088	18.2 pg/mL	20 pg/mL (0.02 ng/mL)	Female N = 595	11.8 pg/mL	N/A	Male N = 493	19.7 pg/mL	N/A
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8) <i>What are other differences between the old troponin test and the new hsTnI?</i>	<u>Old Troponin (TnIDx)</u>	<u>"New" hs Troponin (hsTnI)</u>
8a. Units of measure	ng/mL	pg/mL
8b. Specimen Container	PST4mL	PST4mL
8c. Specimen Stability	Ambient: 2 hours Refrigerated: 24 hours Frozen: 180 days at -20°C	Ambient: 4 hours Refrigerated: 48 hours Frozen: 180 days at -20°C
8d. Quality Control	Cardiac Markers Level 1 & 3	Cardiac Markers Level 1B & 3
8e. Reference Range	Normal: <0.04 ng/mL Indeterminate: 0.04 – 0.5 ng/mL	Females, all ages: <=12pg/mL Males, 0-17 years: <=12pg/mL Males, >=18 years: <=20 pg/mL hsTnI Delta: <=5 pg/mL
8f. Critical Value	Greater than 0.5 ng/mL	Females, all ages: >=76 pg/mL Males, 0-17 years: >=76 pg/mL Males, >=18 years: >=101 pg/mL hsTnI Delta = >=11 pg/mL
8g. Cerner labels Old Troponin I (TROPONIN I) New High-Sensitive Troponin I (HSTNI)	 A Cerner label for Troponin I. It includes patient information: SBB, TESTPT ZZ000007127, F, 18-SEP-1979, RT DSCH. A barcode is present with the number 2-21-194-054111A. The label is for TROPONIN I, PST4, HAR REF Chem.	 A Cerner label for High-Sensitive Troponin I. It includes patient information: SBA, TESTPT ZZ000006084, M, 25-SEP-1980, RT DSCH. A barcode is present with the number 2-21-194-053657A. The label is for HSTNI, PST4, HAR REF Chem.
High-Sensitive Troponin w/ Reflex to Repeat (HSTNI RFX)	Not Applicable	 A Cerner label for High-Sensitive Troponin with Reflex to Repeat. It includes patient information: SBB, TESTPT ZZ000007127, F, 18-SEP-1979, RT DSCH. A barcode is present with the number 2-21-194-054022A. The label is for HSTNI RFX, PST4, HAR REF Chem.
High-Sensitivity Troponin I Delta Check (.HSTNI DLT)	Not Applicable	 A Cerner label for High-Sensitivity Troponin I Delta Check. It includes patient information: SBB, TESTPT ZZ000007127, F, 18-SEP-1979, RT DSCH. A barcode is present with the number 2-21-194-054049A. The label is for .HSTNI DLT, PST4, HAR REF Chem.