Indiana University Health

IU Health Laboratory Services

350 W 11th Street, Indianapolis, IN 46202-4108 | Fax 317.491.6001

New High Sensitivity Troponin Test Offered at IU Health Laboratory Services

Effective Date: July 12, 2021
Contact: Customer Care

Overview:

As of July 12, 2021, High Sensitivity Troponin (hs-Troponin) has replaced the standard troponin lab test. Current Troponin and iSTAT POC Troponin testing will no longer be available.

Frequently Asked Questions:

How does it differ from the current troponin assay?
The assay is able to detect cardiac troponin at a lower concentration. It is more sensitive for detecting injury and accurately recognizes smaller changes in a shorter time frame.

What is the clinical impact?
Detects smaller myocardial infarctions (MIs) and other myocardial damage more efficiently, which allows for quicker triage and treatment. It also rules out MI more efficiently which allows for earlier emergency room (ER) discharge.

Is the scale changing?
Yes, it will be reported as "ng/L" and results will now be in "whole numbers" and not fractions.

Should hs-troponin be thought of as a "positive" or "negative" result?
No, it should be considered as a linear result, not a binary result.

Will hs-troponin be detected in some patients not having a myocardial infarction?
Yes, hs-troponin is detected above the 99th percentiles of 12 ng/L (for women) and 20 ng/L (for men)in patients having type I MI, type II MI, and in patients with myocardial injury not due to acute coronary syndrome (ACS). The definition of MI includes a rising and falling pattern of hs-troponin, plus some clinical evidence of ischemia.

Is there guidance on how to use hs-troponin for emergency department (ED) chest pain presentation?
Yes, a multidisciplinary team with emergency medicine, cardiology, hospitalist, and pathology representation has developed a suggested accelerated diagnostic protocol (ADP) for use in the ED. Please see below for details.

Questions

If there are any questions, please contact the IU Health Laboratory Customer Care at 317.491.6000. For additional questions, concern, or feedback please contact Pam Vollmer, Chemistry Manager, by calling 317.491.6520 or through email at pvollmer@iuhealth.org. You can also contact Michelle K. Zimmerman, MD, MBA, Director of Clinical Chemistry, at 317.491.6558 or through email at mzimmer1@iuhealth.org

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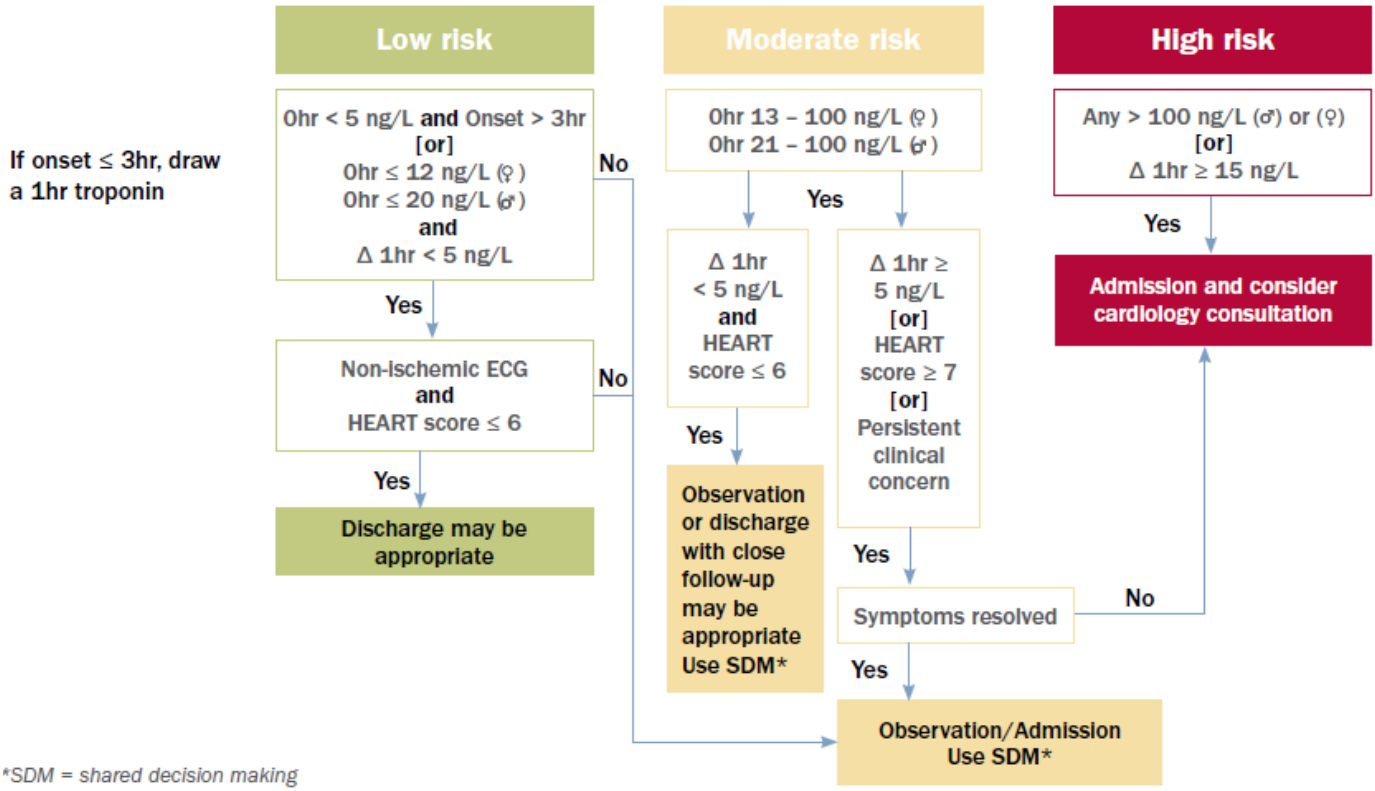
High-sensitivity troponin I in evaluation for ACS – Beckman Coulter Access hsTnI

Does not apply to STEMI or dynamic ST depression with CP



*SDM = shared decision making

Q. In the proposed ADP, can patients be "ruled out" for MI after a single hs-troponin result?

A. Yes, some patients presenting with > 3hr of symptoms and an initial (0hr) hs-troponin of < 5 ng/L may be appropriate for discharge.

Q. In the proposed ADP, how is the HEART score utilized?

A. A HEART score of 7 or greater is associated with a MACE rate of ~ 50% at six weeks, so these patients should generally not be discharged from the ED.

Q. In the proposed ADP, what is considered a significant 1hr Δ, indicating a rising hs-troponin?

A. A 1hr Δ of ≥ 5 ng/L is considered clinically relevant.

Q. In the proposed ADP, when should an early cardiology consult be obtained?

A. Consider early cardiology consultation for any absolute hs-troponin > 100 ng/L, or any 1hr Δ ≥ 15 ng/L, with ongoing symptoms.

Q. In the proposed ADP, how will "close outpatient follow-up" be defined?

A. In light of different processes already in place across the system, and variable resources, outpatient follow-up pathways will be defined locally, generally striving for follow up within 72 hours of release from the ED.