Date: 09/22/2022

From: Mark A. Cervinski, PhD

 Director of Clinical Chemistry

RE: Initiation of High Sensitivity Troponin T Testing

On Tuesday, September 27 2022, the chemistry laboratory at DHMC will transition to measuring troponin with a new high sensitivity troponin T assay for all patients. This new high sensitivity troponin T (hs cTnT) assay is more sensitive and precise than the currently available troponin T assay.

The change in measuring technology will also coincide with a change in the reporting units and reference intervals (99th Percentile). The new hs cTnT results will be reported in ng/L, and the reported values will be approximately 1000 fold higher than the currently reported values.

**Test Units and 99th Percentile Changes**

|  |  |
| --- | --- |
| Current TroponinTest Units | High SensitivityTroponin Test Units |
| ${ng}/{mL}\rightarrow x1000\rightarrow ng/L $  |

|  |  |
| --- | --- |
| Current Troponin Test 99th Percentile | High Sensitivity Troponin 99th Percentiles |
| < 0.01 ng/mL | Females 14 ng/L |
| Males 22 ng/L |

The increased sensitivity of the hs cTnT assay will permit the detection of troponin within reference interval, and approximately 50% of the healthy population will have detectable troponin concentrations. Consequently the interpretation of troponin values with the new hs cTnT assay differs from the current test. The increased precision of the new test will facilitate a more rapid assessment for the presence of acute myocardial injury.

To assist in the interpretation of the new hs cTnT assay, a DHH specific Rapid Rule-Out Algorithm has been developed by a working group, consisting of representatives from the Departments of Emergency Medicine, Cardiology, and Pathology and Laboratory Medicine. The algorithm is appended on the following page.

A recorded video presentation regarding this change is available via the following link.

<https://dhvideo.webex.com/recordingservice/sites/dhvideo/recording/819406ddd93a103ab7ff00505681e571/playback>

A separate “The Cure Podcast” regarding this topic is also available via the following link.

<https://anchor.fm/the-cure-podcast/episodes/Episode-20-Navigating-Chest-Pain-e1k5gks/a-a84pt50>

For **non-urgent** questions regarding this clinical laboratory update, please contact: Jennifer.V.Pope@hitchcock.org for questions about the rapid rule out algorithm

Mark.A.Cervinski@hitchcock.org for questions regarding the laboratory results reporting

For **urgent** questions about the interpretation of results and clinical assessment, please page the Cardiology Attending Physician or Cardiology Fellow on call.



