

Memorandum

To: Northwell Health Laboratories' Clients

From: Nkem Okoye, Ph.D., DABCC, Director, Clinical Chemistry and Diagnostic Immunology
Dwayne Breining, M.D., Senior Vice President, Northwell Health Laboratories

Date: August 11, 2025

Re: Gender Specific 99th Percentile Upper Reference Limits for High-Sensitivity Troponin T

Dear Valued Northwell Health Laboratories 'Clients,

Effective August 20, 2025, Northwell Health Rapid Response Laboratories will adopt gender-specific 99th percentile upper reference limits for high-sensitivity troponin T testing, in accordance with FDA-approved manufacturer instructions for use and diagnostic thresholds.

Test name	Troponin T, High Sensitivity
Test manufacturer	Roche Diagnostics
99th percentile upper reference limit	Female: <14 ng/L (values 14 ng/L and above will flag as abnormal for female patients) Male: <22 ng/L (values 22 ng/L and above will flag as abnormal for male patients)
Computer Interface Code	PDM # 1853066
Test Order	TROPTHS

Current clinical practice guidelines from the American Heart Association, American College of Cardiology and Society for Academic Emergency Medicine recommend high-sensitivity cardiac troponin as the preferred biomarker for myocardial injury, with the 99th percentile upper reference limit defining the diagnostic threshold for acute myocardial infarction (AMI).¹⁻³

Patients with AMI typically show a pattern of rising and/or falling troponin levels, with at least one value exceeding the 99th percentile upper reference limit.⁴ Clinical correlation remains essential as AMI diagnosis requires integrating troponin values with clinical history, symptoms, and ECG interpretation. Due to the release kinetics of cardiac troponin, serial measurements are necessary for ruling in or ruling out suspected non-ST-segment elevation myocardial infarction.¹⁻⁴

Sincerely,
Dr. Nkem Okoye, Ph.D., DABCC and Dr. Dwayne Breining, MD
on behalf of
Northwell Health Laboratories Chemistry Joint Standards Committee

References

- ¹ 2025 ACC/AHA/ACEP/NAEMSP/SCAI Guideline for the Management of Patients With Acute Coronary Syndromes. Circulation, Volume 151, Number 13. <https://doi.org/10.1161/CIR.0000000000001309>
- ² High-Sensitivity Cardiac Troponin and the 2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guidelines for the Evaluation and Diagnosis of Acute Chest Pain. Circulation, Volume 146, Number 7, <https://doi.org/10.1161/CIRCULATIONAHA.122.059678>
- ³ 2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain. Circulation, Volume 144, Number 22, <https://doi.org/10.1161/CIR.0000000000001029>
- ⁴ Thygesen et al. Fourth Universal Definition of Myocardial Infarction (2018). Circulation, Volume 138, Number <https://doi.org/10.1161/CIR.0000000000000617>



If you have any questions, please contact Client Services at (800) 472-5757

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