

“High–sensitivity cardiac troponins are the preferred standard for establishing a biomarker diagnosis of acute myocardial infarction, allowing for more accurate detection and exclusion of myocardial injury”

[2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR guideline for the evaluation and diagnosis of Chest Pain](#)

[HUP Spruce, PPMC, PAH]

INPATIENT

High-Sensitivity Troponin T (HsTN)

★VISIT penncvd.org/tn FOR MORE INFORMATION★

Inclusion:

Inpatients who present with concern for Acute Coronary Syndrome

Exclusion:

• Inpatients who present with concern for Acute Coronary Syndrome with the following features:

◦ STEMI

◦ Dynamic ECG changes concerning for ACS (ST Depression or T wave inversion)

◦ Non-ACS diagnosis made during ED evaluation that explains elevated troponin

• Outpatient / ambulatory setting - no role for obtaining HsTN for chest pain/ACS evaluation in the office setting

Patients with renal dysfunction may have elevated hsTn at baseline. Consider the below in those cases.

- Focus on delta and comparison with prior hsTn values, if available
- Delta values in this pathway can provide guidance, but should be interpreted in the context of:
 - Severity of renal disease
 - Clinical findings
 - ECG

What is Troponin at 0 hour?

<53 ng/L

What is Troponin at 3 hours?
Delta at 3 hours is compared to initial time 0 hour troponin value

≤ 11 ng/L
-AND-
Delta ≤ 6 ng/L

Acute myocardial infarction
RULED OUT

All other values

Indeterminate

Consider risk stratification using clinical decision tool
E.g. HEART, GRACE, TIMI, EDACS, etc.

≥ 53 ng/L
-OR-
Delta ≥ 7 ng/L

Acute myocardial infarction
RULED IN

>= 53 ng/L

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PRACTICE

Contact Nikhil Mull, MD or Emilia Flores, PhD, RN for more information on our PennPathways program.

This PennPathway was developed using a multidisciplinary approach and presents the best model of care based on the best available scientific evidence the time of publication. Recommendations are not intended to replace professional judgement.

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