Acute Chest Pain Algorthim

EKG → STEMI? → **YES** → STEMI Guidelines

STEMI? → **NO** → Symptom onset >3 hours ago?

Symptom onset >3 hours ago? → **NO** → And Initial troponin does not rule-in

Symptom onset >3 hours ago? → **YES** → hsTnT

hsTnT → hsTnT*
Males: ≤ 22 ng/L
Females: ≤ 14 ng/L

hsTnT → hsTnT ≥ 52 ng/l → **YES** → Rule-In

And Initial troponin does not rule-in → 2 hr protocol

hsTnT* Males: ≤ 22 ng/L Females: ≤ 14 ng/L → **NO** → 2 hr protocol

hsTnT* Males: ≤ 22 ng/L Females: ≤ 14 ng/L → **YES** → HEART Score ≤ 5?

2 hr protocol →
- Delta > 7 ng/L after 2 hours → High Risk
- Delta 4-7 ng/L Itermediate Risk → Intermediate Risk: shared decision-making
- Delta < 4 ng/L Rule Out → HEART Score ≤ 5?

HEART Score ≤ 5? → **NO** → Intermediate Risk: shared decision-making

HEART Score ≤ 5? → **YES** → Low Risk: Discharge

HEART SCORE

	Pts
History	
Highly suspicious	+2
Moderately suspicious	+1
Slightly suspicious	0
ECG	
Significant ST deviation	+2
Non-specific Repolarization	+1
Normal	0
Age	
≥ 65 years	+2
45-64 years	+1
≤ 44 years	0
Risk Factors	
Known ASCVD or ≥3 risk factors	+2
1-2 risk factors	+1
No Known risk factors	0

ASCVD: Prior MI, PCI/CABG, TIA/CVA, or PAD
Risk Factors:
HTN   HLPD   DM   BMI > 30
Smoking or Quit ≤3 months
Family history: parent or sibling with CVD < age 65

Troponin*

Women		Men	
≥ 52 ng/L:	+2	≥52 ng/L:	+2
>14, <52:	+1	>22, <5:	+1
≤ 14 ng/L:	0	≤ 22 ng/L:	0

TOTAL SCORE _____

HEART Score 9-10
High (9-11%) Risk
Consider hospitlization and Cardiology consult

HEART Score 6-8
Moderate (2-4%) Risk
Consider repeat troponin, observation, stress test, or discharge with expedited followup

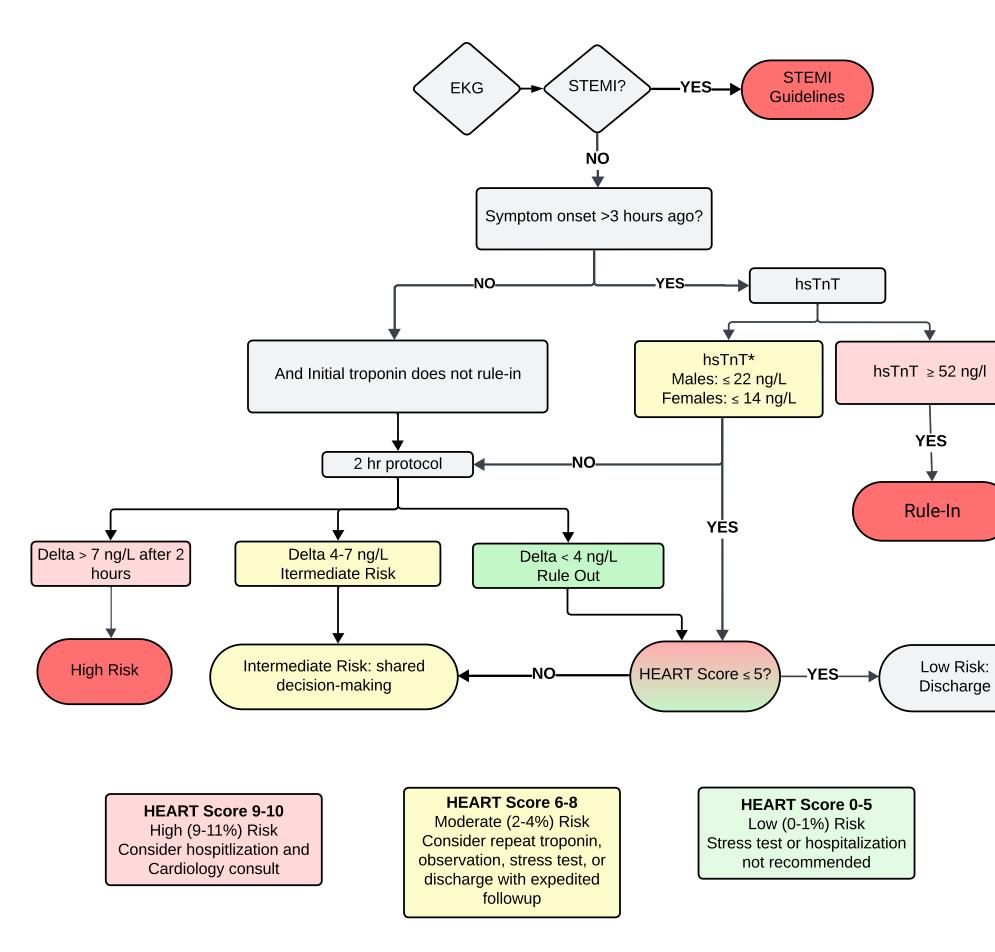**HEART Score 0-5**
Low (0-1%) Risk
Stress test or hospitalization not recommended

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* Sex assigned at birth should be used when applying these sex-specific reference ranges. If the patient-identified gender in Epic differs from the birth sex, the appropriate reference range will NOT be applied. Clinicians should be aware of which cut-off is being used by the EMR and consider its validity.

* Within the HEART score, 2 pts for troponin is alligned with a single "rule-in" value and 1 pt assigned for intermediate value. Using the original scoring by 1-3x upper limit of normal doesn't fit due to having different thresholds for assigned sex at birth.

As with any guidance, clinical decision making should be used to identify unique patient populations, clinical presentations or social factors that may warrant appropriate deviation from these recommendations.