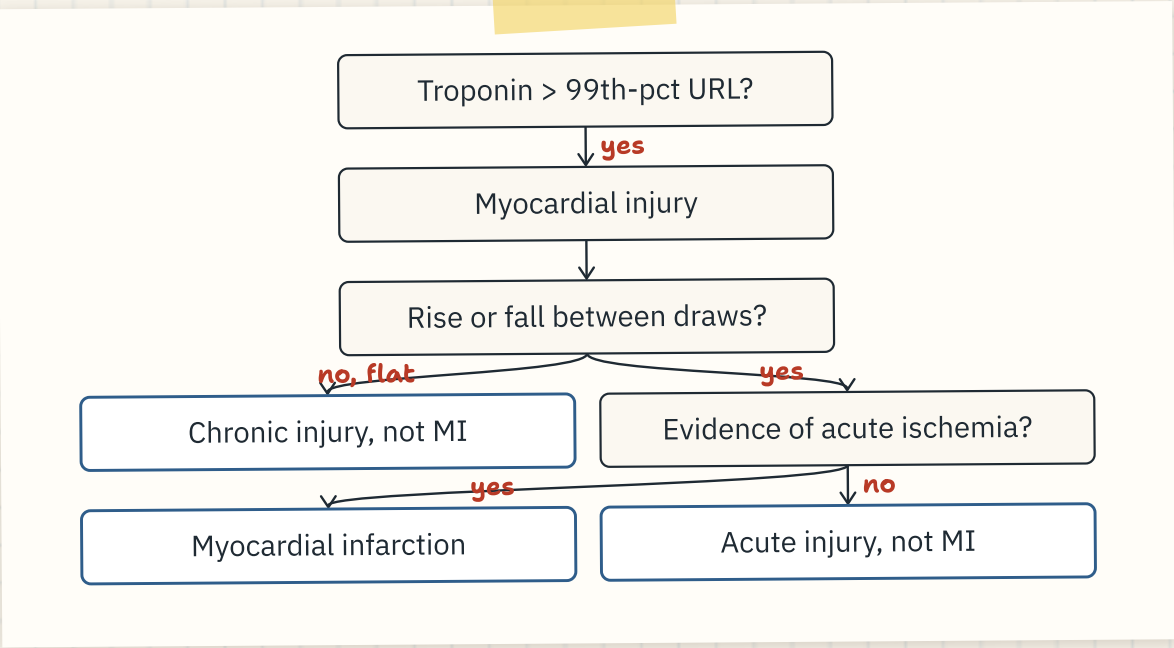
High-sensitivity troponin

Suspected ACS without ST elevation: work-up, and injury vs infarction



Step by step

1. No ST elevation → repeat the ECG (serial ECGs), especially if pain continues.
2. hs-troponin as soon as possible; CK-MB and myoglobin add nothing for diagnosis.
3. Repeat hs-troponin on your pathway's schedule: 1–2 h (2025; 2021: 1–3 h); conventional 3–6 h.
4. Look for the change: a rising or falling pattern.
5. The clinical decision pathway then sorts by risk.

Finding	Label
Troponin > 99th-percentile URL	Myocardial injury
… rising or falling between draws	Acute injury
… high and flat	Chronic injury
Rise/fall + evidence of acute ischemia, atherothrombosis	Type 1 MI
Rise/fall + ischemia, supply–demand mismatch, no acute clot	Type 2 MI
Troponin release, no evidence of ischemia (sepsis, myocarditis, PE)	Injury, not infarction

Injury or infarction?

Injury + ischemia = infarction

Above the line = injury; moving = acute

Type 2: supply and demand, not a clot

Exam traps

- Single-sample rule-out needs all three: onset ≥ 3 h before arrival, normal ECG, hs-troponin below the limit of detection.
- Below the URL but detectable is not a rule-out: take a second sample.
- The 99th-percentile limit belongs to each assay; know your lab's.
- Fibrinolysis is a treatment for STEMI, not for a nondiagnostic ECG.

For exam study only, not medical advice. Follow local guidelines and your lab's ranges.
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