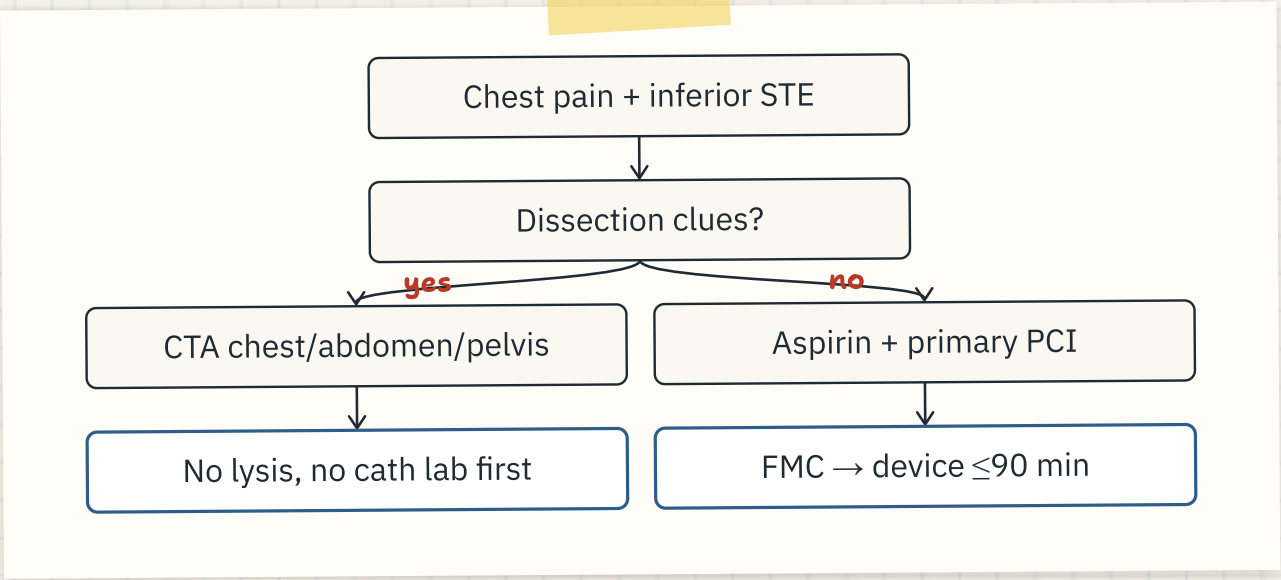
Chest pain: STEMI or dissection?

Check the stem for life threats before you treat the ECG



Step by step

1. Ladder in order: stability → ECG and life threats → troponin and risk.
2. Dissection clues → CT angiography of chest, abdomen and pelvis (TEE or cardiac MRI if CT not possible).
3. Meanwhile: IV beta-blocker first, pain relief, call cardiothoracic surgery.
4. No dissection clues + STEMI → aspirin and primary PCI, goal ≤90 min from first medical contact.

Clue	Note
Sudden, severe tearing pain into the back	Classic story; hypertension a major risk factor
Pressure gap between the arms	>20 mm Hg abnormal; pulse differential in only ~30%
Early diastolic murmur	Aortic regurgitation
Widened mediastinum	Pain + pulse gap + wide mediastinum: >80% probability
Inferior ST elevation	Dissection into the right coronary can cause it

Dissection clues and what they mean

Image before you thin the blood

Suspected dissection: no fibrinolysis (absolute contraindication)

and no cath lab first (antiplatelets and anticoagulants)

Exam traps

- ST elevation that meets STEMI criteria can come from a dissection.
- An absent arm gap does not exclude dissection (pulse differential in only ~30%).
- A repeat troponin can't confirm or exclude dissection, and costs time.
- A V/Q scan looks for PE, which doesn't explain an arm gap or a murmur.

Chest pain next best step: STEMI or aortic dissection?

Video, written lesson, practice question and sources: medservatory.com/usmle-step-2-ck/emergency-medicine/stemi-vs-aortic-dissection

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