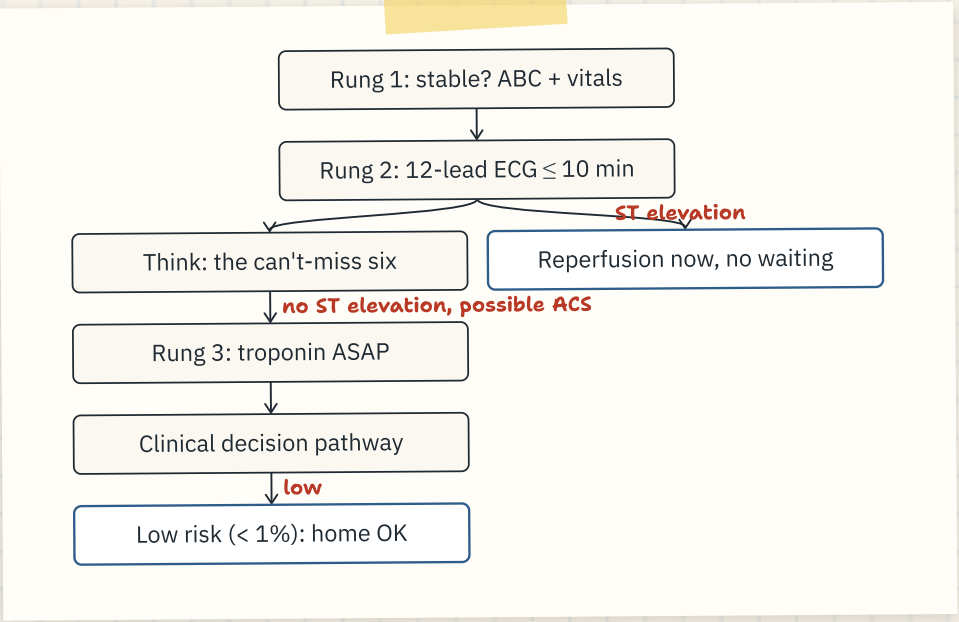
Chest pain: the first 10 minutes

The three-rung ladder for any adult with acute chest pain



Step by step

1. Rung 1: stable? Airway, breathing, circulation, full vital signs incl. SpO_2.
2. Rung 2: 12-lead ECG acquired + reviewed for ST elevation ≤ 10 min of arrival.
3. Nondiagnostic ECG ≠ ruled out → repeat it if ACS suspicion is high, pain persists or patient worsens.
4. Rung 3 (possible ACS, no ST elevation): troponin as soon as possible → clinical decision pathway → low / intermediate / high risk. ST elevation → reperfusion, don't wait for troponin.
5. Low risk (< 1% death or major cardiac event at 30 days): home is reasonable, no urgent testing.

Diagnosis	Clue
ACS	Crushing pressure → arm or jaw, sweating; exam can be normal
Aortic dissection	Sudden tearing pain → back; ± arm pulse or BP difference
Pulmonary embolism	Worse on breathing in, breathless, fast heart rate
Tension pneumothorax	Low BP, distended neck veins, quiet + hyperresonant on one side
Cardiac tamponade	Low BP, distended neck veins, distant heart sounds, pulsus paradoxus
Esophageal rupture	Severe pain after forceful vomiting or endoscopy; ± air under the skin

The can't-miss six

Climb the ladder in order

Stable → ECG + life threats → troponin + risk

The ECG clock: 10 minutes from arrival

Exam traps

- No pulse difference does not exclude dissection: it appears in only about 30%.
- A chest x-ray cannot show ST elevation, so it must not delay the ECG.
- Suspected ACS with SpO_2 90% or above: no routine oxygen; it brings no benefit.
- CT coronary angiography and stress tests come after risk stratification, not first.

For exam study only, not medical advice. Follow local guidelines and your lab's ranges.
© 2026 Medservatory, a project of ADMR Solutions Ltd. Free to print and share for personal study.