



Confidence: 100/100 | Prova v1.0.0 | Validator v0.1.0

### Argument Graph

ID	Claim	Type
claim-1	The patient reports sudden-onset crushing substernal chest pain with radiation to the left arm, onset 45 minutes ago	premise
claim-2	ECG shows ST elevation of 2mm in leads II, III, and aVF	premise
claim-3	The AHA criterion requires ST elevation in two or more contiguous leads	premise
claim-4	Serum troponin I is 2.8 ng/mL against an institutional upper limit of normal of 0.04 ng/mL	premise
claim-5	The ECG changes satisfy the AHA criterion for qualifying ECG changes	claim
claim-6	Elevated troponin confirms acute myocardial injury	claim
claim-7	The characteristic symptom criterion for STEMI is satisfied	claim
claim-8	The three independent STEMI diagnostic criteria are each satisfied: characteristic symptoms, qualifying ECG changes, and	claim
claim-9	The diagnosis is inferior STEMI	conclusion
claim-10	The patient meets the Class I indication for emergent primary PCI via catheterization lab activation	conclusion
edges	claim-2→claim-5, claim-3→claim-5, claim-4→claim-6, claim-1→claim-7, claim-7→claim-8, claim-5→claim-8, claim-6→claim-8, claim-8→claim-9 (+2 more)	

### Original Reasoning Chain

The patient reports sudden-onset crushing substernal chest pain with radiation to the left arm, onset 45 minutes ago. ECG shows ST elevation of 2mm in leads II, III, and aVF, satisfying the AHA criterion of elevation in two or more contiguous leads. Serum troponin I is 2.8 ng/mL against an institutional upper limit of normal of 0.04 ng/mL, confirming acute myocardial injury. The three independent STEMI diagnostic criteria are each satisfied: characteristic symptoms, qualifying ECG changes, and elevated cardiac biomarkers. Therefore, the diagnosis is inferior STEMI and the patient meets the Class I indication for emergent primary PCI via catheterization lab activation.

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