

Table 1. Summary of the clinical variables which make up each risk score and definitions of suitability for discharge according to each score and high-sensitivity troponin assay

Risk Score	m-Goldman	TIMI	GRACE	HEART	Vancouver Chest Pain Rule
Clinical Variables	<p>Typical new onset chest pain at rest</p> <p>Pain the same as previous myocardial infarction</p> <p>Pain not relieved by Nitro-glycerine within 15 minutes</p> <p>Pain lasting more than 60 minutes</p> <p>Pain occurring with increasing frequency</p> <p>Hypotension (Systolic BP <100mmHg)</p> <p>Acute shortness of breath</p> <p>Pain within 6 weeks of an myocardial infarction or revascularisation</p>	<p>Age ≥65 yrs</p> <p>≥3 Risk factors* for coronary artery disease</p> <p>Use of aspirin in last 7 days</p> <p>Significant coronary stenosis (>50%)**</p> <p>Recent severe angina (≥2 angina events in preceding 24h)</p>	<p>Killip Class:</p> <p>I: 0 points II: 20 III: 39 IV: 59</p> <p>Systolic BP (mmHg):</p> <p>≤80: 58 points 80-99: 53 100-119: 43 120-139: 34 140-159: 24 160-199: 10 ≥200: 0</p> <p>Heart Rate:</p> <p>≤50: 0 points 50-69: 3 70-89: 9 90-109: 15 110-149: 24 150-199: 38 ≥200: 46</p> <p>Age:</p> <p>≤30: 0 points 30-39: 8 40-49: 25 50-59: 41 60-69: 58 70-79: 75</p> <p>Creatinine Level (µmol/L):</p> <p>≤35: 1 point 36-70: 4 71-105: 7 106-140: 10</p>	<p>History:</p> <p>Highly suspicious: 2 Moderately suspicious: 1 Slightly suspicious: 0</p> <p>ECG:</p> <p>Significant ST depression[†]: 2 Non-specific repolarisation disturbance: 1 Normal: 0</p> <p>Age:</p> <p>≥65 years: 2 45-65 years: 1 <45 years: 0</p> <p>Risk Factors:</p> <p>≥3 Risk factors[†] for coronary artery disease: 2 1 or 2 risk factors: 1 No risk factors: 0</p> <p>Troponin:</p> <p>hs-cTnT:</p> <p>≥30ng/L[†]: 2 >14ng/L to <30ng/L[†]: 1 ≤14ng/L: 0</p> <p>hs-cTnI:</p> <p>≥78.6ng/L^{††}: 2 >26.2ng/L to</p>	<p>Vancouver Chest Pain Rule</p> <pre> graph TD A["Presentation hs-cTnT>14ng/L or hs-cTnI>26.2ng/L Prior acute coronary syndrome or nitrate use"] --> B["No to all"] A --> C["Yes to any: High Risk"] B --> D["Does palpation reproduce pain?"] D --> E["Yes: Low Risk"] D --> F["No"] F --> G["Age≥50 Does pain radiate to the neck, jaw or left arm?"] G --> H["No: Low Risk"] G --> I["Yes to any: High Risk"] </pre>

			141-175: 13 176-350: 21 >350: 28 hs-cTnT >14ng/L or hs-cTnI >26.2ng/L: 15 points	<78.6ng/L††: 1 ≤26.2ng/L: 0	
Score calculation	1 point for each factor present	1 point for each factor present	Total score depending on categorical data	Total score dependent on presence of clinical variables	Binary rule-out decision tool
Index Tests: Definition of patient suitable for discharge after a single high-sensitivity troponin result	hs-cTnT ≤14ng/L, non-ischemic ECG, either m-Goldman score 0 or ≤1 hs-cTnI ≤26.2ng/L, non-ischemic ECG, either m-Goldman score 0 or ≤1	hs-cTnT ≤14ng/L, non-ischemic ECG, either TIMI Score 0 or ≤1 hs-cTnT ≤26.2ng/L, non-ischemic ECG, either TIMI Score 0 or ≤1	Non-ischemic ECG and GRACE Score either <60 or <80 points (GRACE incorporates hs-cTn)	Heart Score ≤2 or ≤3 (HEART Incorporates ECG and hs-cTn)	Non-ischemic ECG, and clinical features as described in decision tree

Legend:

*Risk factors for coronary artery disease: Family history (<65 years) of premature coronary artery disease, hypercholesterolemia, diabetes mellitus, hypertension or current smoker.

**Patient reported coronary intervention or evidence from hospital record

†Patients with ST depression not included within this study cohort

†‡30ng/L for hs-cTnT selected as upper reference value due to manufacturer (Roche) recommendations.

††78.6ng/L chosen as upper reference value for hs-cTnI as no manufacturer recommendations and validation studies of the HEART score used an upper cut-off of ≥3 x normal limit (29).