

Identifying Low Risk Patients with Chest Pain in the ED

HEART Score

TABLE

HEART Score for Predicting Major Adverse Cardiac Events in Patients with Chest Pain

Element	Points
History	
Highly suspicious	2
Moderately suspicious	1
Slightly or nonsuspicious	0
Electrocardiography	
Significant ST-depression	2
Nonspecific repolarization	1
Normal	0
Age (years)	
≥ 65	2
> 45 to < 65	1
≤ 45	0
Risk factors	
≥ 3 risk factors or history of atherosclerotic disease	2
1 or 2 risk factors	1
No known risk factors	0
Troponin ★	
≥ 3 times the normal limit	2
> 1 to < 3 times the normal limit	1
≤ normal limit	0
Total:	_____

Scoring: 0 to 3 points = low risk (0.6% to 1.7% risk of major adverse cardiac events); 4 to 6 points = intermediate risk (16.6% risk); 7 to 10 points = high risk (50.1% risk).

Adapted with permission from Backus BE, Six AJ, Kelder JC, et al. A prospective validation of the HEART score for chest pain patients at the emergency department. Int J Cardiol. 2013;168(3):2154.

History: atherosclerotic disease, previous myocardial infarction, prior PCI, prior CABG, stroke or peripheral vascular disease

Risk Factors: HTN, hyperlipidemia, Diabetes, Family history of premature CAD, current smoker, obesity (BMI > 30)



"The original HEART score consisted of 5 components: history, ECG, age, risk factors, and cTn. To calculate an HS, each component is assigned a number on a scale of 0 to 2, and then component scores are summed to produce the final score (0–10).

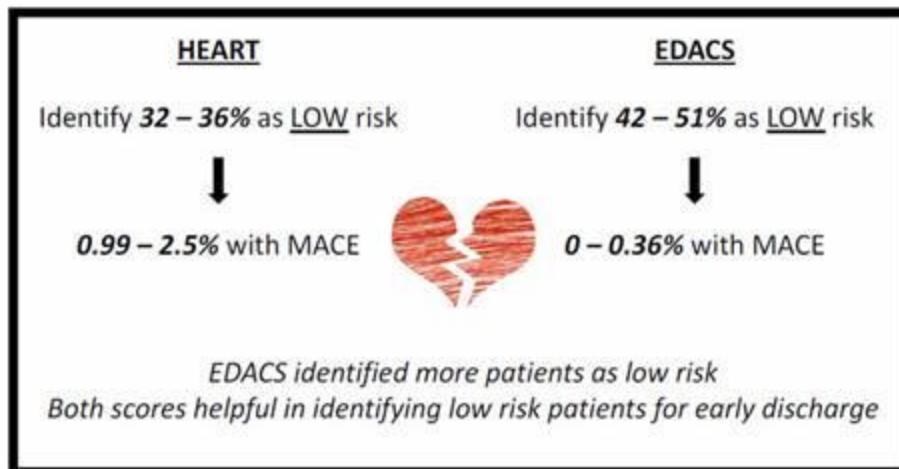
The **modified HEART SCORE** eliminated the cTn component of the score, instead requiring cTnI <[URL] at 0 and 3 hours."

EDACS Score

(Emergency Department Assessment of Chest Pain Score)

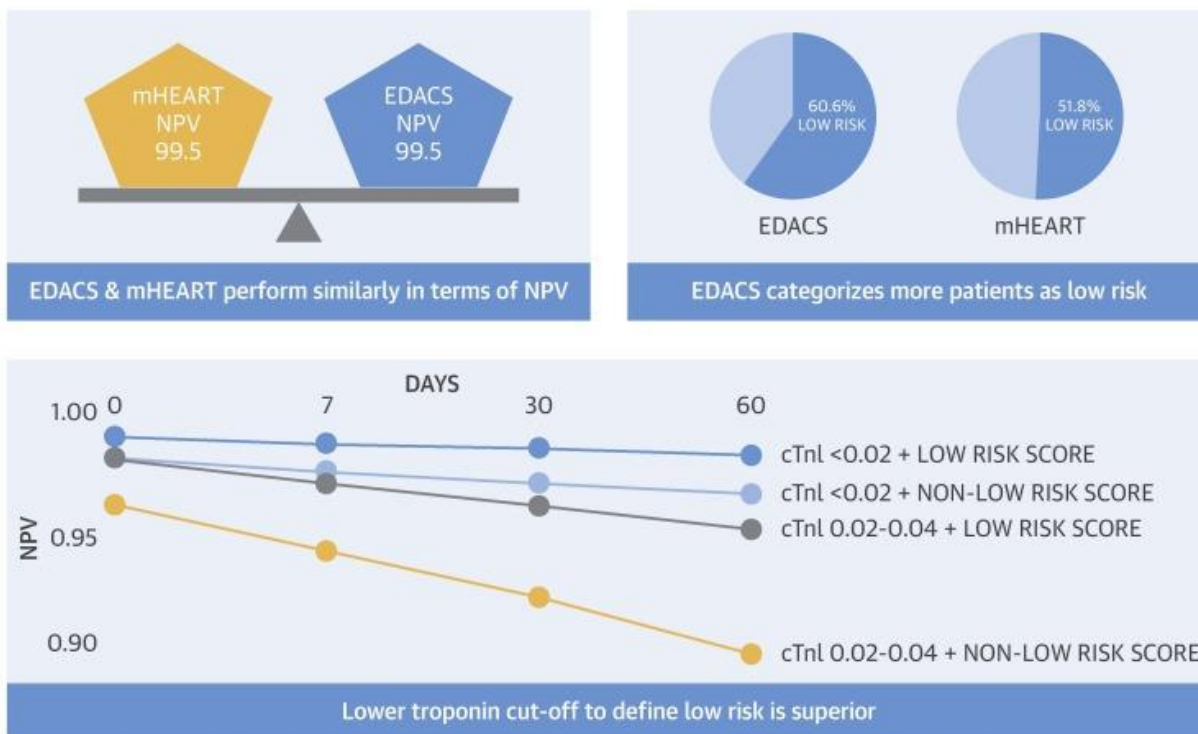
Clinical characteristics	Score
A) Age (please circle single best answer)	
18-45	+2
46-50	+4
51-55	+6
56-60	+8
61-65	+10
66-70	+12
71-75	+14
76-80	+16
81-85	+18
86+	+20
B) Male sex (please circle if true)	+6
C) This component is to be used only for ages 18-50 with either	
Known CAD (previous AMI, CABG, or PCI in men <55 years or women <65 year)	OR
≥3 risk factors present (family history premature CAD, diabetes, hypertension, dyslipidemia, and current smoker)	+4
D) Signs and symptoms (circle each that present)	
Diaphoresis (in association with pain)	+3
Pain occurs or worsened with inspiration	-4
Pain radiates to the arm or shoulder	+5
Pain reproduced by palpation	-6
EDACS total (please add score of all circled figures)	[]
EDACS: <16 (LOW RISK), 16-21 (INTERMEDIATE RISK), ≥21 (HIGH RISK). EDACS: EMERGENCY DEPARTMENT ASSESSMENT OF CHEST PAIN SCORE, CAD: CORONARY ARTERY DISEASE, CABG: CORONARY ARTERY BYPASS GRAFT, PCI: PERCUTANEOUS CORONARY INTERVENTION, AMI: ACUTE MYOCARDIAL INFARCTION	

http://www.onlinejets.org/viewimage.asp?img=JEmergTraumaShock_2017_10_2_74_201586_t3.jpg



<https://epmonthly.com/article/calc-corner-heart-score-vs-edacs/>

CENTRAL ILLUSTRATION: Performance of the EDACS Versus Modified HEART Score Among Emergency Department Patients With Chest Pain



Mark, D.G. et al. J Am Coll Cardiol. 2018;71(6):606-16.