

Pt presents with chest pain with concern for ACS, without STEMI on EKG  
Obtain history, physical exam, EKG, initial troponin

HEART score 0-3 with troponin  $\leq 0.02$  and no known CAD  
6 week MACE 1.7%

HEART score 4-6 with troponin  $\leq 0.02$   
6 week MACE 12-17%

HEART score 7-10 or troponin  $> 0.02$  or evolving EKG or clinician concern  
6 week MACE 50-65%

Shared decision making using Chest Pain Choice tool

2<sup>nd</sup> troponin 3 hours from initial troponin AND at least 6 hours from onset of pain. If negative and not increasing, 6 week MACE 1%: DC home with follow up.

[Click here for Chest Pain Choice Decision Aid »](#)

OR

Pt prefers to go home without second troponin, 6 week MACE 1.7%: DC home with follow up

OR

Pt prefers to stay in observation unit for stress test: place in CDU for stress test.

Observation unit for provocative testing

*If known CAD, consider this option as well even if HEART score 0-3*

Admit

#### HEART Score

History	Highly suspicious	2
	Moderately suspicious	1
	Slightly or not suspicious	0
EKG	Significant ST-depression	2
	Nonspecific repolarization disturbance	1
	Normal	0
Age	$\geq 65$ years	2
	$>45 - <65$ years	1
	$\leq 45$ years	0
Risk factors	$\geq 3$ OR h/o atherosclerotic disease	2
	1 or 2	1
	No risk factors	0
Troponin	$>3x$ normal limit	2
	$>1 - <3x$ normal limit	1
	$\leq$ normal limit	0

Risk factors: DM, Current or recent ( $<3$  months) smoker, htn, hld, family history of CAD (parent or sibling with CAD  $<65$  yo), obesity (BMI  $> 30$ ).

#### References:

- Backus et al. A prospective validation of the HEART score for chest pain patients in the emergency department. *Int J Cardiol* 2013;168: 2153-2158.  
Hess et al. The Chest Pain Choice decision aid: a randomized trial. *Circ Cardiovasc Qual Outcomes* 2012;5:251-259  
Mahler et al. Can the HEART score safely reduce stress testing and cardiac imaging in patients at low risk for acute coronary syndrome? *Crit Pathw Cardiol* 2011;10(3):128-133  
Mahler et al. Identifying patients for early discharge: performance of decision rules among patients with acute chest pain. *Int J Cardiol* 2013;168(2):795-802

This guideline was ratified by the emergency department faculty at Maine Medical Center in July 2017. It reflects our expert opinion and is not necessarily applicable to all institutions. It is intended to be a reference for clinicians caring for patients and is not intended to replace providers' clinical judgment.

# Chest Pain Choice Tool

- Your initial results are **negative** for a heart attack. These tests included:
  - A history and physical examination
  - An electrocardiogram
  - Blood tests to look for an enzyme called troponin that is released when heart muscle is damaged. Two blood tests are done at least 3 hours apart, and the second test must be done at least 6 hours after your pain started.
- **However**, the chest pain you are having today may be a **warning sign for a future heart attack**.
- Your personal risk of having a heart or pre-heart attack within the next 30 days can be determined by comparing you to people with similar factors who also came to the emergency department with chest pain.
- **You have a choice:** what would you prefer?
  - I would prefer to go home and follow up with my primary care physician to discuss any further testing.
  - I would prefer to stay for a stress test to lower my risk even further. I understand this may increase the cost of my care and/or lengthen my stay.
  - If only a single troponin has been done: I would prefer to go home now and follow up with my doctor. I understand that this raises my risk of a heart attack or pre-heart attack in the next 30 days from 1 in 100 to about 2 in 100.
  - I would like the physician caring for me to make this decision for me
- Additional information:

Patient signature \_\_\_\_\_

Provider signature \_\_\_\_\_

Date \_\_\_\_\_

