

Created by Martin Wiese

LRI Emergency Decisions Unit

CAD likelihood assessment tool

Version 37

To be used following ACS rule-out to enable appropriate planning of further management

Do not use if raised cTnI or acutely ischemic ECG

Disclaimer:

This is a clinical template; clinicians should always use judgment when managing individual patients

Approved by ED consultant team on 01Jun16
Review date Jan 18 - Trust Ref C74/2016

Patient details

Full name

DoB

Unit number

(use sticker if available)

① Confirmed CAD?

☐ YES, as at least one of the below

Previous myocardial infarction ☐

Coronary artery bypass graft (CABG) ☐

Previous coronary angioplasty (PCI) ☐

☐ NO, as none of the above

② Features of anginal pain?

Pain or discomfort in the front of the chest, neck, shoulders, jaw or arms ☐

Precipitated by physical exertion ☐

Relieved by rest or GTN in about 5min ☐

☐ Yes, as all features (Typical angina)

☐ Yes, as 2 features (Atypical angina)

☐ No, as < 2 features (Non-anginal pain)

③ Key CAD risk factors

Smoking ☐

Treated diabetes OR glucose in ED > 11 ☐

Total cholesterol > 6.47mmol/L OR on statin ☐

None of the above ☐

④ CAD likelihood

Find correct table for pain typicality below. Next, circle risk as appropriate for age, sex and number of risk factors (as per box 3). Finally, tick correct risk range at the bottom.

NB: CAD likelihood is higher in each cell if resting ECG ST-segment changes or Q waves

Flowchart logic:

- Confirmed CAD (see box 1)?
 - Y: Angina TYPICAL (see box 2)?
 - Y: GP to continue / optimize CAD treatment
 - N: GP to consider (re-)referral for CAD diagnostic testing
 - N: Non-anginal pain (see box 2)?
 - Y: Angina TYPICAL (see box 2)?
 - Y: GP to consider individualised management
 - N: CAD likelihood >90% AND angina TYPICAL?
 - Y: Refer for follow-up within 4/52 in cardiology OPD. GP to start CAD treatment.
 - N: CAD >60% likely?
 - Y: Refer to RACP clinic
 - N: GP to consider referral for CAD diagnostic testing
 - N: Complete box 3. Determine CAD likelihood (box 4). CAD <10% likely?
 - Y: No action required
 - N: Patient too frail for standard management approach?
 - Y: GP to consider individualised management
 - N: Angina TYPICAL (see box 2)?
 - Y: GP to consider referral for CAD diagnostic testing
 - N: GP to consider cardiology OPD referral to explore non-CAD angina causes

Complete GP letter on reverse and attach a copy of the final ECG. Consider providing patient with a copy of both items.

① Assessment by

② Senior sign-off by (consultant, substantive ST4-6 or cardiac nurse/reg)

①

②

Print name

Signature

Position

Date

Time

Atypical angina								
Risk factors								
Age	Men				Women			
	0	1	2	3	0	1	2	3
<40	8	25	42	59	2	12	27	39
40-49	21	37	54	70	5	18	30	43
50-59	45	56	68	79	10	22	35	47
60-69	71	76	81	86	20	30	41	51
>69	>90				61-90			

Typical angina								
Risk factors								
Age	Men				Women			
	0	1	2	3	0	1	2	3
<40	30	49	69	88	10	33	55	78
40-49	51	65	78	92	20	40	59	79
50-59	80	85	90	95	38	53	67	82
60-69	93	94	96	97	56	65	75	84
>69	>90				61-90			

☐ 0-9%

☐ 10-60%

☐ 61-90%

☐ 91-100%

Patient details

Full
name

DoB

Unit
number

(use sticker if available)

Emergency Decisions Unit (EDU)

Leicester Royal Infirmary
Infirmary Square
Leicester, LE1 5WW

EDU desk 0116 258 6214
EDU fax 0116 258 5920

Date

Dear Doctor,

Your patient attended our ED with chest pain of recent onset.

History in
one single
sentence:

We have excluded an acute coronary syndrome (ACS) using a validated rule-out protocol. ^[1]

Suggested further management (EDU clinician please tick the statement(s) below as applicable)

We have assessed the likelihood that your patient has symptomatic coronary artery disease (CAD), using an approach recommended by NICE (see pathway on reverse). ^[2] Our suggestions for further management are as followed:

- ☐ Your patient has an established diagnosis of CAD (see box 1 on reverse for details)...
 - ☐ ... and reports typical anginal pain – continue / optimize treatment for stable angina as recommended by NICE. ^[3]
 - ☐ ... but we are not certain that your patient's chest pain is caused by CAD. Consider (re-)referral for diagnostic testing.
- ☐ CAD was excluded, as patient had non-anginal pain. Diagnostic testing for CAD is not required; consider other causes of chest pain (e.g. gastrointestinal and musculoskeletal conditions) when reviewing the patient.
- ☐ CAD is <10% likely and diagnostic testing is not required. Consider other causes of chest pain (e.g. gastrointestinal and musculoskeletal conditions) when reviewing the patient.
- ☐ CAD is <10% likely but your patient reports typical anginal pain. Testing for CAD is not indicated but consider referral to a cardiologist to look for non-CAD causes of angina (such as hypertrophic cardiomyopathy or syndrome X).
- ☐ CAD is between 10 and 60% likely (see box 5 on reverse for more details). We recommend referral for CAD diagnostic testing.
- ☐ CAD is between 61 and 90% likely (see box 5 for more details). We have referred your patient to the UHL Rapid Access Chest Pain Clinic (RACP), as coronary angiography is likely required. We recommend Aspirin 75mg PO once daily (unless allergic).
NB: Further recommendations for patients in whom the results of CAD diagnostic testing is awaited (as indicated):
 - ☐ Your patient requires appropriate management for anaemia (Hb <130g/L in men; <120g/L in women); Hb: _____ g/L
 - ☐ Your patient reports typical anginal pain and should be managed as stable angina as recommended by NICE. ^[3]
- ☐ Your patient reports typical anginal pain and CAD is >90% likely. We have referred him / her for follow-up within 4 weeks to the UHL cardiology OPD and provided a GTN spray. We recommend treatment for stable angina as per NICE guidance. ^[3]
- ☐ Your patient is very frail and unlikely to benefit from a standard management approach. Consider an individualized care plan.

Further
suggestions
(if applicable):

References

1. HammCW, BassandJP, AgewallS et al. ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation. Eur Heart J 2011;32:2999-3054.
2. National Institute for Health and Clinical Excellence. Chest pain of recent onset: assessment and diagnosis of recent onset chest pain or discomfort of suspected cardiac origin (clinical guideline 95). 2010. www.nice.org.uk/guidance/CG95
3. National Institute for Health and Clinical Excellence. Management of stable angina (clinical guideline 126). 2011. www.nice.org.uk/guidance/CG126

Please do not hesitate to contact myself or ED consultant Martin Wiese if you have questions about our management of this case.

