Chest Pain Pathway

This pathway has been developed from published guidance, in collaboration with local cardiologists.

This guidance is to assist GPs in decision making and is not intended to replace clinical judgment.

Chest Pain

- Character: Dull, heavy, aching, crumpling, other
- Frequency and onset of chest pain
- Duration: Radiation: jaw, arm, other
- Where any associated symptoms
- Does patient have the pain now or within the last 12 hours?
- Any associated symptoms which says, any exacerbating factors including exercise or inspiration?
- Are there any associated symptoms which says, any contributing factors including fever, infection, first degree relatives, lipid, diabetes?
- Is there a history of ischaemic heart disease or any previous cardiac investigations?
- Any history of respiratory, gastrointestinal or musculoskeletal disease, trauma, or amniotic fluid embolism?
- Are patients for the symptoms of ACS
- Does patient have the pain now or within the last 12 hours, are there any associated symptoms which says any simple chest pain occurring frequently and with little or no exertion, and with episodes lasting 10min?

Examination

- Pulse rate, rhythm and character, delay between arms
- Blood pressure in both arms (>10mmHg consider aortic dissection)
- Heart sounds - 7 murmur, pericardial rub
- Signs of heart failure
- Asthmatics

If patient clearly needs hospital admission do not delay for investigations

12 Lead ECG if available - a normal ECG does not rule out cardiac ischaemia

FBC, Renal, TFTs, Lipids, Gluc, HbA1C, CRP, ESR, LFTs, Anti Cardiolipin

Expected

- Sustained chest pain
- Signs of complications e.g. pulmonary oedema
- Pain free but pain in last 12 hours with abnormal ECG or ECG not available

A recall of ACS with further chest pain

Other various causes of chest pain as per clinical judgement

Clinical signs

- RR: 30/min
- HR: 150/min
- BP/HbG/SpO2 unless normal for them (e.g. hypotension)
- Altered consciousness
- High temp esp if Altered consciousness

Does the patient have any of the below?

- Chest pain at rest or minimal exertion
- New chest pain
- Abrupt deterioration from normal chest pain (in previously stable angina)
- Character:
- Cough
- History of IHD
- New onset chest pain
- Extremal radiation
- New onset chest pain
- Cardiac risk factors

Assess patients for the symptoms of ACS

Does patient have the pain now or within the last 12 hours, are there any associated symptoms which says any simple chest pain occurring frequently and with little or no exertion, and with episodes lasting 10min?

Estimated % likelihood of coronary artery disease (CAD) [See appendix 1]

Refer to Rapid Access Chest Pain service

Peripheral Embolism: risk factors: smoking

Refer for urgent same-day cardiology assessment

Whilst waiting for ambulance to arrive:

- CS patient up
- For suspected ACS:

Suspected ACS with:

- Pain within 48 hours, single leading di of 300µg aspirin
- Other aspirin agents should only be offered in hospital

Further investigations

- Oxygen should not routinely be prescribed
- Monitor oxygen saturations
- Only offer supplemental oxygen where: 90% < SaO2 < 94% in those at risk of hypercapnic respiratory failure, aiming for SaO2 of 94-98% in those with COPD at risk of hypercapnic respiratory failure, to address a target SaO2 of 90-92% until blood gas analysis available

Estimate % likelihood of coronary artery disease (CAD) [See appendix 1]

+15% likelihood

- Previous cardiac history?

Patient needs information about their condition and how to manage it

- Drug therapy and patient involvement in treatment to promote adherence
- Psychological wellbeing
- Information on returning to work
- Offer information on welfare

Refer to Rapid Access Chest Pain service

+15% likelihood

- No previous cardiac history

Those holding HGV license may need to inform the DVA. For further information please refer to the following:

- No

- Yes

Refer to Cardiac Rehab (e.g. cardiology).

It includes:

- Exercise component
- Patient involvement in weight-loss, smoking cessation
- Information on returning to work
- Lifestyle changes
- Drug therapy and patient involvement in treatment to promote adherence

Will the patient need to use a cardiac rehabilitation pathway?

Pathway created by NCL

Approved by Clinical Cabinet Nov 2021

Clinical Contact for pathway queries: Camden.pathways@nhs.net

References

https://www.nice.org.uk/guidance/cg115

Comments & queries relating to medication:

CCHG Medicines Management Team med.cardiac@camden.ac.uk

Clinical Commissioning Group

Camden

Camden Council

NHS

Camden

NHS

Approved by Clinical Cabinet

Nov 2021

Reviewer: NCL

Revised Nov 2020
Atypical angina presents with two of the above features. In addition, atypical symptoms include gastrointestinal discomfort, and/or breathlessness and/or nausea.

Typical angina presents with all three of the following features:
- Precipitated by physical exertion.
- Constricting discomfort anterior chest, neck, shoulders, jaw, or arms.
- Relieved by rest or GTN within 5 mins.

For men older than 70 with atypical or typical symptoms, assume an estimate > 90%. For women older than 70, assume an estimate of 61–90% except women at high risk and with typical symptoms where a risk of > 90% should be assumed.

Values are per cent of people at each mid-decade age with significant coronary artery disease (CAD). Hi = High risk = diabetes, smoking and hyperlipidaemia (total cholesterol > 6.47 mmol/litre). Lo = Low risk = none of these three.

The ‘non-anginal chest pain’ columns represent people with symptoms of non-anginal chest pain, who would not be investigated for stable angina routinely.

Note:
These results are likely to overestimate CAD in primary care populations.
If there are resting ECG ST-T changes or Q waves, the likelihood of CAD is higher in each cell of the table.


Appendix 1 Percentage of people estimated to have coronary artery disease according to typicality of symptoms, age, sex and risk factors

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Low/high risk</th>
<th>Non-anginal chest pain</th>
<th>Atypical angina</th>
<th>Typical angina</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
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<tr>
<td>65</td>
<td>49</td>
<td>69</td>
<td>9</td>
<td>29</td>
</tr>
</tbody>
</table>

For men older than 70 with atypical or typical symptoms, assume an estimate > 90%. For women older than 70, assume an estimate of 61–90% except women at high risk and with typical symptoms where a risk of > 90% should be assumed.

Legend:
- Lo = Low risk
- Hi = High risk
- Non-anginal chest pain
- Atypical angina
- Typical angina