CORONARY ARTERY DISEASE (CAD)

Screening

Those at **INCREASED RISK** of coronary artery disease include:

- smokers
- Aboriginal people
- diabetes
- family history (< 65 female, < 55 male 1st degree relative)
- hypertension
- ACR > 3.6 mg/mmol
- dyslipidaemia
- truncal obesity (waist circumference > 100cm)

In those AT RISK:

- Ask annually 'Do you get chest pain?'
- Do baseline ECG at 25 years of age.

In those with Diabetes Mellitus (DM):

- ECG every 2 years.

- A **negative** result on screening does **not** exclude CAD.
- Have a **high index of suspicion** in those at INCREASED RISK.
- **Remember alternative manifestations of CAD** including SOB, atypical pain and sudden change in exercise tolerance.

Case Definition

CAD consists of a spectrum of clinical entities resulting primarily from atherosclerosis in the coronary arteries.

CAD includes:

- **Myocardial infarction (MI)** i.e. raised troponin levels, abnormal ECG.
- **Angina** i.e. chest pain (or an equivalent angina syndrome) ideally confirmed by stress testing – ECG exercise test, echocardiogram stress test or nuclear medicine scan.
- **Echocardiogram with segmental dysfunction** (this suggests silent MI or ischaemia).

Principles of Management

- **FIRST: Confirm diagnosis** and **document extent of disease** (See flow chart 'Diagnosing CAD' on page 3 of this guideline).
- **Smoking cessation** is a priority.
- Manage all other CAD risk factors (See HEALTHY LIVING).
- Be aware of co-existent heart failure (See HEART FAILURE).

BASELINE INVESTIGATIONS:

Document other cardiovascular risk factors (see 'Screening').

Check:

- BP, pulse, BMI, waist circumference.
- random venous glucose level, FBE, lipids, eGFR.
- ACR.

Therapeutic Protocols

Ensure **influenza** and **pneumococcal vaccines** are up to date.

SUSPECTED CAD
(Until diagnosis confirmed or refuted)

1. **Aspirin** 100mg daily.
2. **Atenolol** 25mg daily, double dose every 2 weeks to maximum 100mg daily.

NB: Avoid in asthma, substitute with **carvedilol** if associated heart failure (see HEART FAILURE) or **labetalol** in pregnancy (see 'Women of Child Bearing Age').

3. **Glyceryl trinitrate (GTN)** 400mcg metered dose pumpspray and educate re use i.e.
   - Sit or lie down.
   - Spray one dose sublingually.
   - Repeat after 5 minutes if pain persists.
   - Seek ***urgent*** medical help if pain persists after further 5 minutes.

STABLE ANGINA
i.e. no change in exercise related chest pain and no chest pain at rest.

Manage as for SUSPECTED CAD.

ADD **atorvastatin** 20mg daily, doubling the dose every 6 weeks to maximum 80mg daily if tolerated.

If episodes of angina persist:

Add **nifedipine SR** 30mg daily and double the dose to 60mg daily after 2 weeks as needed.

If angina continues add **isosorbide mononitrate** 30mg daily and double every 2 weeks to maximum 120mg daily.

Next, if pain continues add **nicorandil** 5mg bd and double weekly to maximum dose 20mg bd.

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CORONARY ARTERY DISEASE (CAD)

Therapeutic Protocols (cntd)

POST MYOCARDIAL INFARCTION

Manage as for SUSPECTED CAD ***and*** STABLE ANGINA.

Additionally:

ADD **quinapril** 5mg daily, doubling the dose every 2 weeks to maximum 40mg daily if diabetes, hypertension, anterior MI

and

ADD **clopidogrel** 75mg daily if recurrent stable angina or MI whilst on aspirin.

Follow–up

Within one week of discharge (for MI or unstable angina) and every 2 weeks whilst titrating medicines.

Once stable, every 3 months review frequency of exercise related angina and presence of angina at rest. Check BP, BMI, waist circumference and smoking status.

6 monthly: lipids, UEC.

Annually: ECG, ACR.

Women of Child Bearing Age

- Encourage use of reliable contraception and/or prepregnancy counselling and early antenatal care.
- Avoid **statins** if there is risk of pregnancy.

PREGNANT:

Start/continue **aspirin, GTN** (if indicated) as above.

WITHHOLD **nitrates, nicorandil, quinapril** and **statin.**

Substitute **atenolol** with **labetalol** 100mg bd increasing to maximum 200mg bd.

DISCUSS WITH OBSTETRICIAN PROMPTLY.

BREAST FEEDING:

NO **statin.**

AVOID **nitrates** and **nicorandil.**

Continue **aspirin** 100mg daily.

Substitute **quinapril** with **enalapril** 5 - 40mg daily.

Continue **labetalol** and **nifedipine SR.**

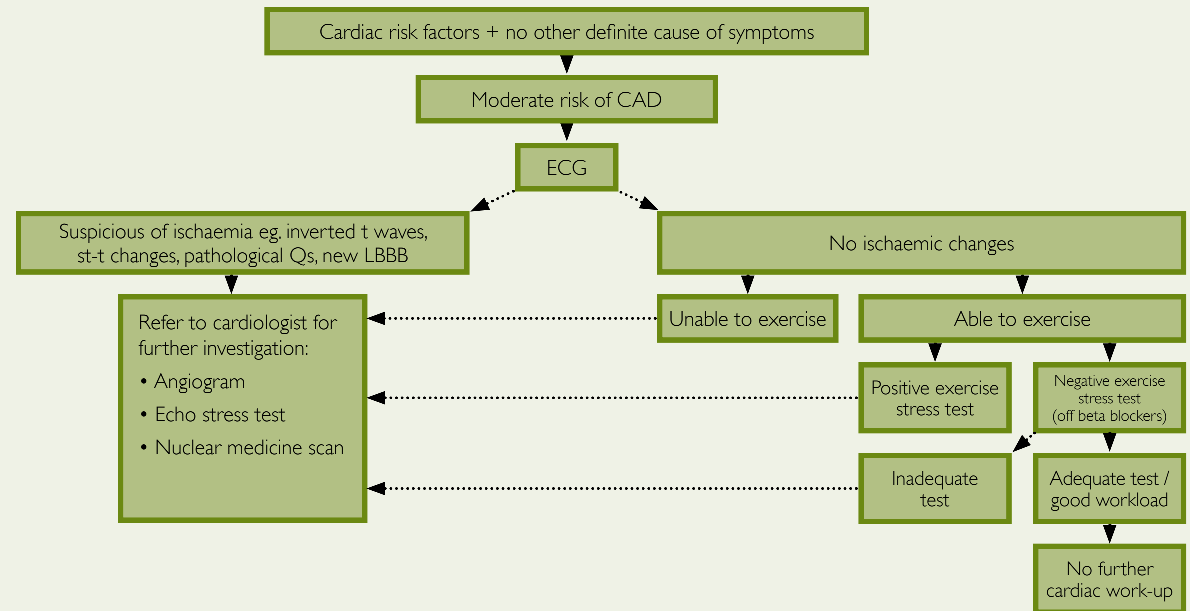
Refer / Discuss

TO CARDIOLOGIST/PHYSICIAN:

- Everyone with confirmed MI.
- Chest pain with high probability CAD (as above).
- Newly diagnosed angina.
- Unstable angina i.e. increasing exertional chest pain or angina at rest.
- Angina persisting despite maximal medical therapy.

TO OBSTETRICIAN:

- ALL pregnant women with CAD **promptly.**



CORONARY ARTERY DISEASE

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