

**Rapid Access Chest pain Clinic  
(RACPC)**

**Luton & Dunstable University  
Hospital NHS Trust**

# Referral criteria

- Patients having chest discomfort of possible cardiac origin
- Not a means of arranging followup for existing cardiac patients, especially if medical treatment has not been adjusted and re-evaluated
- Not for patients with new onset AF/ flutter.
- Shortness of breath alone is accepted as a referral criteria if the patient is diabetic and a primarily respiratory cause is considered unlikely or heart failure ruled out (pro BNPNT)

# Referral Criteria (continued)

- Patients with resting chest pain or on minimal exertion where a cardiac cause has not been ruled out should attend ED urgently
- Younger patients with chest pain, either typical or atypical and/or syncopal episodes also seen. Family history is key for this group of patients, especially sudden cardiac death. Reduced exercise tolerance / SOB also may be taken into consideration if Asthma not suspected (screening primarily for cardiomyopathy)

# Referral criteria (continued)

- Quality of referrals variable, a few rejected due to lack of information or if clearly non-cardiac symptoms described *or* if already under Cardiology with recent diagnostics
- Description of symptoms and what provokes them required, old 'box-ticking' proforma still in circulation, not to be used in isolation as not specific enough
- Q-risk not strictly adhered to as a filtering tool, many of our patients have a score of <10%

# Service design/ pathway

- A means for adults in an outpatient setting to be seen urgently to investigate chest discomfort or other symptoms of suspected cardiac origin-
- Waiting time between 2 and 4 weeks
- Patients mainly referred after initially presenting to GP, via choose and book
- Significant number referred via GP after ED attendance. A few are referred internally if especially urgent, but this route has funding implications

# Pathway (continued)

- Patients attending ED with Troponin negative chest pain may wait for the opinion of a cardiologist if already a known Cardiac patient and commonly verbal advice will be given to the admitting team. The team will then arrange appropriate urgent outpatient diagnostics, eg functional testing.
- These patients are then followed up with their results in consultant-led 'Hot clinics'

# Pathway (continued)

## **When seen in the RACPC patients can expect:**

- ECG and Chest x-ray if they have not had a recent one especially if they are a smoker
- Nurse- led consultation lasting approx 30 mins, taking in: relevant medical history, presentation, medication/ allergies, physical examination and possible Exercise test
- Concluding consultation with/ without consultant. Management plan proposed

# Pathway (continued)

- Once assessed in the RACPC, referred for diagnostics and will only be seen again in RACPC followup clinic if:
- Results are abnormal/ inconclusive
- Close monitoring and titration of medical therapy required
- Patient or GP request followup



# History taking

As you are aware, history taking is key and at times a considerable challenge.

Challenges include:

- Language barrier/ relatives speaking for the patient
- Lack of specificity or the clinician accepting a vague response due largely to time constraints.
- Over-use of the word 'sometimes'!

# History Taking (continued)

- Re the chest pain: Quality, location, pattern, positional? Duration, precipitating or relieving factors, reproducibility, radiation, recently ill?
- Shortness of breath: duration, precipitating and relieving factors, weight gain? Wheeze? Smoking? Expectorant? Pleuritic chest pain?
- Syncope /Presyncope? Associated symptoms? Frequency, duration, prodrome
- Palpitations with/ without symptoms

# Diagnostics

- Anatomical: ECG, CT Coronary angiogram, Conventional Coronary angiogram, Echocardiogram, Bubble Echo, MRI, PET CT
- Functional: Exercise ECG, Stress Echocardiogram, Nuclear medicine myoview perfusion scan, Stress Perfusion MRI, Tilt test
- 24 or 48 hour holter monitor, Loop, Memo, Implantable Loop

# Ionizing Radiation awareness

Any diagnostic choice is made in the context of acceptable radiation exposure. In our trust:

- Requesting physician has to have asked whether the patient is pregnant or likely to be so.
- CT Coronary angiogram with Calcium scoring exposes the patient to a total average 3-3.5mSv, or over a year's worth of background radiation or at least 30 chest x-rays (each 0.1mSv)
- 2 day Myoview perfusion scan can generate 8-8.5-mSv, dependent on body habitus
- Conventional Coronary angiography 7mSV or PCI potentially over 20mSv

# CT Coronary Angiography

NICE guidelines 2016 established CT Coronary angiography as the default diagnostic.

- Problematic for younger patients-radiation
- Rate control often a challenge, especially for asthmatics or those taking anxiolytics
- Relatively high rate of misinterpretation especially in the presence of significant calcium deposits
- Vulnerable to bloom or movement artefact

# **‘Secondary’ prevention**

A term we use to denote pharmacological and non- pharmacological strategies in the presence of coronary artery disease/ calcification, not necessarily after a cardiac event. Specifically:

- Commencement of Antiplatelet and Statin aiming at LDL Cholesterol of  $\leq 1.8$
- Optimising BP and heartrate control
- Smoking cessation
- Diabetes Prevention Programme
- Regular cardiovascular exercise

# Discharge

- Once a non-cardiac cause of symptoms proven via diagnostics/ resolution of symptoms
- If I refer a patient for coronary angiogram , my role usually ends there, except for up-titration of anti-anginals in the intervening weeks
- Transfer to the general clinic or a specialist branch such as Cardiomyopathy team at Harefield for those with longstanding issues

# Case Studies