

Barns Medical Practice Service Specification Coronary Heart Disease



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Introduction

Coronary heart disease (CHD) or ischaemic heart disease (IHD) is the leading cause of death both in the UK and worldwide.

CHD is an umbrella term that describes all diseases of the heart and circulation. It's responsible for around 170,000 deaths in the UK each year - or one death every 3 minutes. Heart and circulatory disease causes 25% of all deaths in the UK. CHD generally affects more men than women, but from the age of a woman's menopause the chances of developing the condition are similar for both men and women (BHF, 2023). As well as angina (chest pain), the main symptoms of CHD are heart attacks and heart failure. However, not everyone has the same symptoms and some people may not have any before CHD is diagnosed.

CHD describes what happens when your heart's blood supply is blocked or interrupted by a build-up of fatty substances in the coronary arteries. Over time, the walls of your arteries can become furred up with fatty deposits. This process is known as atherosclerosis and the fatty deposits are called atheroma.

Atherosclerosis can be caused by lifestyle, genetic predisposition, and other conditions, such as:

- Smoking and alcohol
- High cholesterol
- High blood pressure (hypertension)
- Diabetes
- Excess weight / obesity.

- Lack of exercise / sedentary lifestyle.
- Family history of atherosclerosis and CVD.
- Being of South Asian, African or African-Caribbean descent.

The clinical team in the practice work with other members of the multidisciplinary team work to ensure the optimum treatment and screening for this diagnosis. These team members include dieticians and referral to secondary care (hospital) if required.

Diagnosis

CHD is usually diagnosed after a risk assessment and tests. This involves taking a family history, checking blood pressure and a blood test to assess cholesterol level. Further tests may include a tracing of the heart called an electrocardiograph (ECG) before referral to hospital for more investigations. Other investigations may include:

An Exercise Tolerance Test

Identifies strain to the heart while exercising on a treadmill. You have leads attached to you which are connected to an ECG machine recording the rhythm of your heart.

X-rays

These may be used to look at the heart, lungs and chest wall to rule out any other conditions.

Echocardiogram (ECHO)

This is similar to an ultrasound scan used in pregnancy. It can identify the structure of the heart and thickness of heart muscle as well as heart valves. It involves smoothly gliding a probe over the skin of the chest wall.

Coronary angiography

This is also known as a cardiac catheter test and a thin tube is inserted in the groin or wrist and advanced via the arteries to the heart. Dye is then injected to identify coronary arteries that are narrowed or blocked.

Magnetic resonance imaging (MRI)

This is a scan where the patient is placed in a tunnel and can produce detailed images of the heart

Computerised tomography (CT) scan

This scan gives X-ray images of the inside of the body. It involves lying on a bed while a small tube rotates around the body.

Regular Review

Although CHD cannot be cured, treatment and improving lifestyle can help to prevent heart disease and heart attacks. Barns Medical Practice offers an annual review to all patients with CHD. They are lettered to attend a screening visit carried out by the Health Care Assistant (HCA). This includes blood sampling. The results from this visit are assessed by a trained nurse or doctor and these are then discussed, usually via a telephone consultation, with the patient. Any recommended changes to the management of the condition would be discussed at that telephone consultation and if follow up is required then that too will be arranged.

Lifestyle:

Smoking is one of the main causes of heart disease. Patients are encouraged to stop smoking and can be offered a variety of therapies to assist with this. These may include

1. NRT patches, gum, inhalator or lozenges.
2. Varenicline or Champix which is a 12 week course of tablets.

Discussion regarding stopping smoking is advised in the first instance. Patients can be signposted to services such as Fresh Ayrshire for initial and ongoing support. Some chemists also provide this service.

Blood pressure should be checked annually unless a patient is already on treatment for high blood pressure, in which case every 6 months. This should be below 140/85. In the UK, an estimated 5 million people are living with undiagnosed high blood pressure and around 50% of heart attacks and strokes are associated with high blood pressure (BHF, 2023)

If the patient has uncontrolled high blood pressure, this means that the heart has to work harder to push blood around the body. The heart muscle then becomes thicker and stiffer which makes the heart enlarged. This is called Left Ventricular Dysfunction or hypertrophy (LVD/LVH). It is managed with drugs called ACE inhibitors or A2 agonists. Patients who also have swelling or signs of fluid retention should also be treated with a diuretic (water tablet). Lifestyle advice is given as for annual review.

Exercise and increased physical activity on a regular basis helps to maintain a healthy weight and therefore reduces risk of further complications of CHD. It will improve circulation which will also help to maintain good blood pressure control. A variety of vouchers to attend the Citadel Leisure Centre can be prescribed by a clinician. These include the Activity for Health, Invigorate and Weigh to go vouchers. The patient can make an appointment at the Citadel for an assessment and a programme of activity can be tailored to suit that patient's needs, depending on their capability.

Eating a healthy diet Everyone should aim for a well-balanced diet. Faddy crash diets may not provide the balance of nutrients you need. The best way to understand it is to think of foods in food groups.

Try to eat:

- plenty of fruit and vegetables

- If eating starchy foods such as bread, rice, potatoes and pasta choose wholegrain varieties wherever possible
- some milk and dairy products
- some meat, fish, eggs, beans and other non-dairy sources of protein
- only a small amount of foods and drinks high in fats and/or sugar.

Choose options that are lower in fat and salt and sugar whenever you can. Referral can be made to a dietician to assist with weight loss. A voucher for Weigh to Go classes at the Citadel can also be given.

Alcohol intake recommendations are 2-3 units daily for women and 3-4 units for men. A FAST questionnaire (FAST ALCOHOL SCREENING TEST) is often completed by a clinician and any concerns regarding alcohol intake should be addressed.

Indications for referral

The HCA or Nurse will liaise with the GP if any concerns are raised at annual review.

Resources for Staff and or Patients

<https://www.bhf.org.uk/what-we-do/our-research/heart-statistics>

<https://www.bhf.org.uk/heart-health/conditions/coronary-heart-disease>

<http://www.nhs.uk/conditions/Coronary-heart-disease/Pages/Introduction.aspx>

SIGN guideline 149; Risk Estimation and the prevention of cardiovascular disease 2017

<https://www.sign.ac.uk/assets/sign149.pdf>

<https://cks.nice.org.uk/topics/cvd-risk-assessment-management/> [updated May 2023]

Staff involved and training required

HCA: blood sampling, annual review, onward referral and booking review/ telephone appointments.

GPs and nurse staff should be committed to ongoing personal development and updating knowledge with regard to CHD.