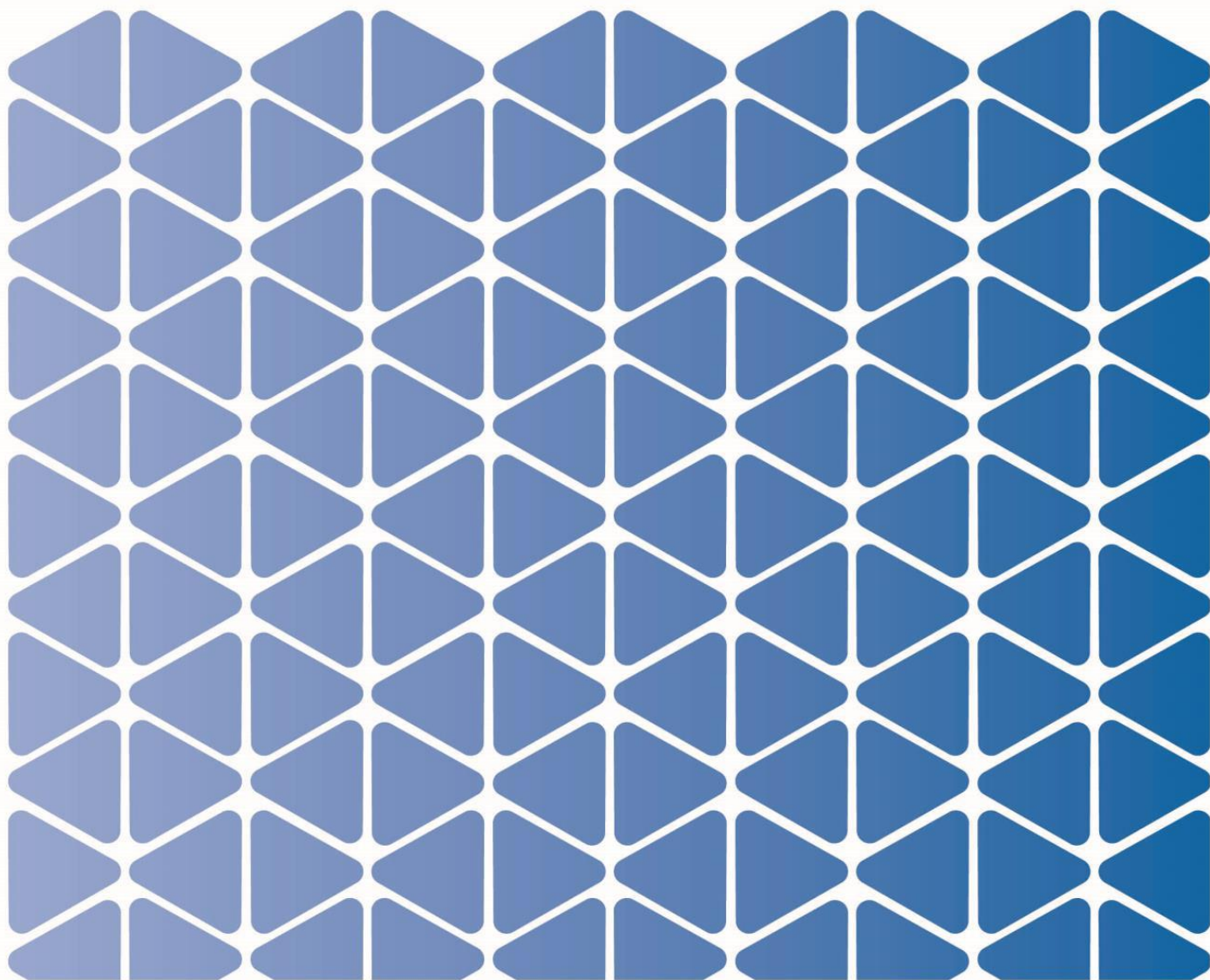


## PATIENT INFORMATION

# CORONARY ANGIOPLASTY



It has been recommended for you to have a coronary angioplasty. This is a treatment used to stretch narrowed or blocked coronary arteries. These are the arteries which supply the heart with blood. Blockages in these arteries can cause angina and heart attacks. You will normally have previously had a cardiac catheterisation and assessment of your coronary arteries. A thin plastic tube (guiding catheter) will be inserted through an artery or vein in your leg or arm and will be passed into the heart under X-ray guidance. This tube can then be used to inject contrast fluid into each of the coronary arteries to highlight the areas needing treatment.

A guide wire is then passed through the area of narrowing in the artery. If the artery is completely blocked, this is not always successful. A fine balloon catheter is then threaded over the wire and is used to dilate (stretch) the narrow part of the artery. It may be necessary to make several inflations to widen the narrowed artery. Usually one or more thin metal meshes (stents) are inserted to support the artery wall and keep it open. Once the procedure is complete the balloon is deflated and removed along with the guide wire. A thin film of cells will then grow through the stent to line the inner surface.

This leaflet explains some of the benefits, risks and alternatives to the procedure. We want you to have an informed choice so you can make the right decision. Please ask your cardiological team about anything you do not fully understand or want to be explained in more detail.

We recommend that you read this leaflet carefully. You and your doctor (or other appropriate health professional) will also need to record that you agree to have the procedure by signing a consent form, which your health professional will give you.

### **Intended benefits of the procedure**

The aim of the procedure is to stretch your narrowed or blocked coronary arteries. This is usually done to improve angina. If you have recently had a heart attack, it may also reduce the risk of future heart attacks.

### **Serious or frequent risks**

Everything we do in life has risks. A coronary angioplasty is considered to be a safe procedure. Occasionally complications can arise because of the test's invasive nature. These include:

#### **Bleeding;**

Bleeding from the needle puncture site can occur. This bleeding will normally stop on its own. Occasionally the bleeding is more severe and a blood transfusion may be

required. Very occasionally it will be necessary for you to have a small operation to seal off the artery.

**Infection;**

There is a small risk of infection at the puncture site.

**Bruising;**

Bruising in the groin or wrist is common but will disappear over a couple of weeks.

**Heart attack or stroke;**

Rarely a heart attack or stroke can occur during the procedure. If this does happen it is often minor however may require you to stay in hospital for a few days. Very rarely the heart attack or stroke can be much more serious and may result in you needing an emergency heart operation or even your death.

**Kidney function**

There is a small risk that the contrast used in the test could make your kidney function worse. Rarely your kidneys may be permanently damaged or you may need dialysis (a machine used in place of kidney function). This risk is higher if your kidney function is abnormal before the test. You may be given fluid into a vein or drugs if you are at risk of this.

**Damage to a heart artery**

Rarely the heart artery being treated can be severely damaged or even torn (rupture). This can cause an emergency with fluid or blood around the heart and may need urgent treatment including surgery. The chance of this complication is very low but it can also result in death.

**The artery may re-narrow;**

After the procedure the artery may re-narrow. If this occurs you will probably experience angina and a repeat angioplasty may be needed.

This risk of any of these complications occurring for an elective (planned) procedure is less than 1 case in 100. The risk for emergency procedures is higher than this – your doctor can give you an assessment of this risk if your case is an emergency. You will be cared for by a skilled team of doctors, nurses and other healthcare workers who are involved in this type of procedure every day. If problems arise, we will be able to assess them and deal with them appropriately.

## **Other procedures that are available**

You will normally have already been treated with medication in which case the only other treatment available is cardiac surgery.

## **Your pre-admission visit**

We may ask you to go to a pre-admission clinic where members of the nursing team of the cardiac catheterisation suite will see you, if you have not been there before. The aim of this visit is to record your current symptoms and past medical history, including any medication you are taking. A blood sample will usually be taken.

**You will be given some tablets called clopidogrel to take the night before the procedure. These are very important to reduce the risk of the procedure, and you will normally take these for some time (usually a year) after the procedure.**

A member of the team will check that you agree to have the planned procedure. Please bring your consent form (which you were given in outpatients), making sure that you have read and understood the form before your clinic visit. If you have not understood any part of the information, you will be able to ask any questions you may have about your test.

## **BEFORE YOU COME INTO HOSPITAL**

### **Instructions for eating and drinking**

It is important that you follow the instructions we give you about eating and drinking. On the morning of your test you may have a drink when you get up, but you should then have nothing to eat or drink until after the procedure.

### **Your normal medicines**

We will usually ask you to continue with your normal medication (except as instructed below), so please bring it with you.

### **Warfarin**

If you are taking warfarin, you may be asked to stop them before the procedure or you may be asked to continue taking it, with the procedure performed through your wrist. Please ask your doctors about warfarin if you have not been told what to do.

If you have an artificial heart valve or have not been given instructions regarding warfarin, please contact the cardiac catheter suite on 01905 733205 OR contact your cardiologist's secretary if you are in any doubt about what to do.

## **Warfarin Alternatives (Dabigatran/Pradaxa, Rivaroxaban/Xarelto, Apixaban/Eliquis, Edoxaban)**

There are now a number of anticoagulant drugs like Warfarin which might be used if you have an abnormal heart rhythm (atrial fibrillation) or have had blood clots in your lungs or legs (DVT or PE). If you are taking one of these drugs (Dabigatran, Rivaroxaban, Apixaban, Edoxaban), it may be possible to perform the procedure through the artery in the wrist without stopping it, and your cardiologist should have told you to do this. If you have been asked to stop the drug, please take the last dose on the morning of the day before you come to hospital.

If you are taking one of these drugs but have not been given advice about it, please contact the cardiac catheter laboratory on 01905 733205.

### **Restarting Warfarin or Warfarin Alternatives**

You will usually be asked to restart your anticoagulant drug at your usual dose on the evening of the procedure or the following day. You will be given instructions about this after your procedure. If you are taking warfarin, you will need to have an INR test about a week later with whoever usually measures your INR.

### **Diabetes**

If you have diabetes, you should follow the appropriate instructions below:

#### **Treated with a special diet**

- You do not need to follow any specific instructions other than the above.

#### **Treated with tablets**

- If you take metformin (Glucophage) do not take it on the day of your test or for the following 2 days. Do not take any other diabetic tablets on the morning of the procedure.

#### **Treated with insulin**

- If you take insulin you should not take your usual dose on the morning of your test. The nurses will do regular checks on your blood sugar levels. You will usually be able to have something to eat after the procedure. Please bring your insulin with you so that you can have your insulin at this time.

If you have any questions or concerns about your diabetic treatment please contact whoever normally advises you about your diabetes.

If you don't feel well and have a cough, a cold or any other illness when you are due to come into hospital for your investigation, we will need to know. Depending on your illness and how urgent your investigation is, your procedure may need to be delayed.

### **On the day of the procedure**

You will usually be admitted to the cardiac catheter suite on the day of your procedure so we and you can prepare for the test. We will welcome you to the suite and check your details. We will fasten an armband containing your hospital information to your wrist. We will ask you to change into a gown ready for your test.

You will need to bring with you a dressing gown and slippers. It may be worth bringing something to read as well, in case your procedure is delayed.

Prior to the procedure the Consultant cardiologist who will be carrying out your procedure will be available to answer any queries you may have. Please let us know in advance if you are allergic to any antibiotics or other drugs.

### **During the procedure**

Before the procedure you will be asked to remove any glasses, dentures or jewellery that you may be wearing. A coronary angioplasty is performed using a specialised X-ray machine in the cardiac catheter suite. We will ask you to lie on a couch, within the ring of the X-ray machine.

Local anaesthetic will be injected into the area where we will insert a small plastic tube into an artery. This is either through the wrist, or less commonly at the top of your leg. In some people it is necessary to insert a tube through a vein as well. You will usually be given some sedation to help you relax and heparin to thin your blood during the procedure.

The X-ray equipment will be brought close to your chest to allow the balloon catheter to be positioned. Whilst the balloon is being inflated you may feel some chest discomfort. This is due to the balloon causing a temporary blockage of blood flow through the artery and is normal. It is important to tell your cardiologist or member of the team if you feel any pain during the procedure.

A coronary angioplasty may take from 30 minutes to 2 hours depending on the complexity and number of narrowings in your coronary arteries.

At the end of the test the catheter is removed. If the small tube was put in your arm, it will usually be removed immediately after the procedure. If the small tube is in your leg, it may be removed immediately and a device used to close the hole in the artery,

or it may be left in for a few hours and removed later on the ward. You will have to lie flat during this time and this is often the most uncomfortable part of the procedure due to backache.

### **After your procedure**

You will go back to the cardiac catheter suite or less commonly the cardiac ward, and be attached to a heart monitor. If the sheath has been in your groin, you may have to lie flat and keep your legs as still as possible to prevent bleeding in the groin. If the sheath was removed in the laboratory, you may be able to sit up after 30 minutes. You will be closely observed by the nursing staff and regular checks on your blood pressure, pulse and puncture site to ensure there is no bleeding. If you feel any pain or discomfort, especially chest pain, report it to the nursing staff immediately.

## **LEAVING HOSPITAL**

### **Length of stay**

You will usually go home later the same day after your angioplasty, unless there is any reason to stay in hospital overnight. Blood tests will be taken the following morning, either in hospital or at your GP's surgery.

### **Medication when you leave hospital**

Before you leave hospital, the pharmacy will give you any extra medication that you need to take when you are at home. If you have had a stent inserted you will be given a supply of clopidogrel, which prevents blood clots forming on the stent and blocking it. Sometimes another tablet called ticagrelor or prasugrel may be used in place of clopidogrel. You will be advised on how to take this drug. Clopidogrel and aspirin are vital in ensuring that your stent remain open. You will need your GP to provide a repeat prescription of clopidogrel before your hospital supply runs out. You will probably need clopidogrel for 12 months after your stent – if anyone advises you to stop this, you must tell them to consult with your cardiologist first.

### **Convalescence**

How long it takes for you to fully recover from your test varies from person to person. Once home, it is important to rest quietly for the remainder of the day. Some people feel a slight bruised sensation where the tube was inserted. You can take a simple pain killer such as paracetamol.

### **Wound**

For the first few days after you get home, check your puncture site. You can expect to have some bruising, but if there is any redness, if you have swelling, or if the bruising is very widespread, contact your GP (family doctor) or the hospital doctor.

## **Personal hygiene**

You will be advised not to bathe or shower until the day after your procedure. Further advice will be given by the nursing staff.

## **Exercise**

It is best to avoid doing any demanding activities, like heavy lifting, for at least a week. Ordinary walking, for example round the house, garden or place of work should not be a problem. However, if you get chest pain when you are being active, avoid further exercise and tell your GP about the pain immediately.

## **Driving**

If you have an ordinary driving licence, you should not drive in the first week after having your angioplasty. If you have an LGV (large goods vehicle) or PCV (passenger-carrying vehicle) licence, you should not drive for at least six weeks after your angioplasty and you will need to have further tests before you can drive an LGV or PCV again.

## **Work**

When you return to work will depend partly on your job, but you should probably expect to be off work for a week after your angioplasty.

## **Procedure results**

We will usually explain the results and any recommendations about your treatment to you before you leave the hospital. Many people find it helpful to have someone with them when their results are explained.

A full report will be sent to your doctor (GP) within a few days.



## Contact details

If you have any specific concerns that you feel have not been answered and need explaining please contact the following:

- Nursing staff, Cardiac Catheter Suite, Worcestershire Royal Hospital, Mon-Fri 7.30am to 8pm (Phone 01905 733205)

## Additional Information

The following internet websites contain additional information that you may find useful:

- [www.worcestershirehealth.nhs.uk/acute\\_trust](http://www.worcestershirehealth.nhs.uk/acute_trust)  
Worcestershire Acute Hospitals Trust
- [www.patient.co.uk](http://www.patient.co.uk)  
Information fact sheets on health and disease
- [www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk)  
On-line Health Encyclopaedia and Best Treatments website
- [www.bhf.org.uk](http://www.bhf.org.uk)  
British Heart Foundation Website

**If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.**

### **Patient Experience**

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

### **Feedback**

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

### **Patient Advice and Liaison Service (PALS)**

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

### **How to contact PALS:**

**Telephone Patient Services: 0300 123 1732 or via email at: [wah-tr.PALS@nhs.net](mailto:wah-tr.PALS@nhs.net)**

### **Opening times:**

The PALS telephone lines are open Monday to Friday from 8.30am to 4.00pm. Please be aware that you may need to leave a voicemail message, but we aim to return your call within one working day.

If you are unable to understand this leaflet, please communicate with a member of staff.