

Primary PCI for acute myocardial infarction

Introduction

Your doctor believes you may be having a heart attack and recommends a special investigation called a coronary angiogram. If a narrowing or blockage is found in your coronary arteries treatment is required to improve the flow of blood in the coronary (heart) arteries. We call this treatment percutaneous coronary intervention (PCI).

The initial coronary angiogram (sometimes called a cardiac catheterization) is a special investigation to examine the structure and function of the heart and its arteries.

Under a local anaesthetic, a very narrow, flexible, plastic tube (called a catheter) is guided from the artery in the arm or leg to examine the chambers of the heart and the coronary arteries. A special contrast dye which shows up on an X-ray is injected into the arteries and allows the doctor to see any blockages or narrowings that may be responsible for your symptoms.

After the angiogram the doctors may need to treat any narrowed or blocked coronary arteries. This is called percutaneous coronary intervention (also known as PCI, stenting or angioplasty). A small inflatable balloon on the tip of a narrow tube (a catheter) is passed across the blockage or narrowing in the coronary artery. The balloon is inflated to open the artery and a stent, a short tube made of stainless-steel mesh, may also be inserted. The balloon/stent expands so that it holds open the narrowed artery. The balloon is then let down and removed, leaving the stent in place. In this urgent situation this procedure is called Primary Percutaneous Coronary Intervention (PPCI) and is the most effective and safest treatment for an acute heart attack.

Benefits

The majority of procedures (90%) (90 out of 100 patients) result in a successful outcome. After a successful procedure most patients feel benefit immediately. Rarely the artery can re-narrow and the procedure needs to be repeated. Your Cardiologist will discuss the results of your procedure with you afterwards and will be very willing to answer any questions you may have.

Risks

The chances of success and the risks associated with any procedure vary for each person. Important factors that can influence risk include age, level of heart injury and presence of other medical conditions.

Up to 1 in 10 (10%) people used to die from a heart attack. This has been more than halved by modern treatment methods. Risks include:

- less than 1 in 100 (1%) of patients may suffer a stroke as a result of a heart attack and its treatment.
- Acute heart rhythm disturbances may occur and this would require emergency treatment.
- Some bruising and discomfort at the site of the artery puncture is common but there is a less than 1 in 100 (1%) chance of a major problem occurring at the artery site. This includes excessive bleeding or blockage of the artery which may require blood transfusion or an operation to correct.
- There is less than 1 in 100 (1%) chance of significant damage to the artery used for the procedure.

- The contrast dye used to visualise the coronary arteries can very rarely cause kidney function to deteriorate. Severe allergic reactions to the dye are also rare.

Your Cardiologist will recommend that you have primary coronary intervention if he/she feels that the benefits of the procedure outweigh the risks. The figures quoted in this document are average figures for all cases. Your Cardiologist will discuss with you any specific additional aspects of your case before the procedure.

Alternatives

Your doctors have recommended that this is the most appropriate investigation for your condition. If you wish to discuss alternatives, please talk to the doctor before you sign the consent form.

How to contact us

Cardiac Angiography Suite	(01865) 572616 (Mon-Fri 7.30am-9pm)
Cardiology Ward	(01865) 572671 (24 hours)
Coronary Care Unit	01865 221304 / 220629 (24 hours)

Further information

For further information the following web sites are recommended:

British Heart Foundation:	www.bhf.org.uk
British Cardiac Society:	www.bcs.org.uk
British Cardiovascular Interventional society:	www.bcis.org.uk

Please note:

The department where your procedure will take place regularly has professional observers. The majority of these observers are health care professionals, qualified or in training, and on occasions, specialist company representatives. If you do not wish observers to be present during your procedure please tell a doctor or nurse.