NHS
Royal Papworth Hospital
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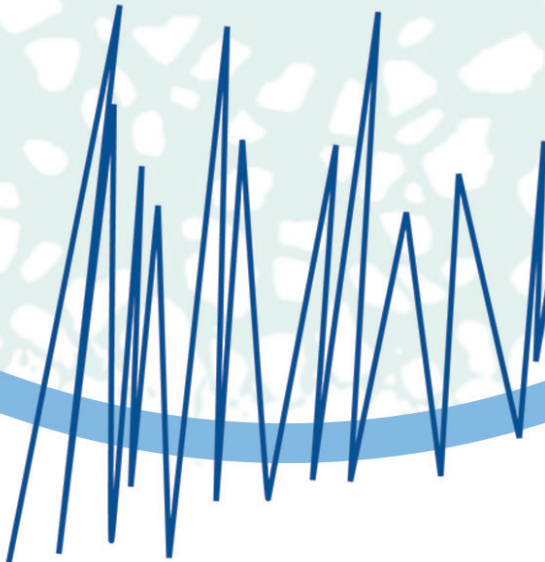
Right heart catheterisation for pulmonary hypertension

A patient's guide and consent form



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Introduction

This guide is for patients who are having a right heart catheterisation (RHC). It explains what is involved and any risks associated with the procedure.

A right heart catheterisation is a medical procedure where a small tube (catheter) is passed into a vein and guided around the right side of your heart to measure pressures inside your heart and the main blood vessels of your lungs.

Why might I need a right heart catheteristaion?

A right heart catheterisation is the 'gold standard' test to diagnose pulmonary hypertension. It is also helpful in diagnosing and managing other conditions such as heart failure, congenital heart disease or heart valve disease. It will help your doctors to tell what is causing your symptoms and help guide the best treatment for you.

Preparation for the procedure

This is usually performed as a day case procedure. Your specialist team may tell you to stop taking certain medications around the time of the procedure. This will most often relate to blood thinning medication such as warfarin, rivaroxaban, apixaban, heparin injections or similar and specific instructions will be given to you about this.

There is no need to fast for the procedure. Wear loose and comfortable clothing and shoes. You will be given a hospital gown to change into.

You will see a doctor before your procedure and have the opportunity to ask any questions, before being asked to sign a consent form to show you agree to the test and understand what is involved. Please let the staff know if you have an allergy or sensitivity to any medications, latex, etc.

What does the procedure involve?

The procedure is usually performed in a specially equipped room in the hospital called the cardiac catheterisation laboratory (cath lab). It usually takes approximately 30 minutes. The room is a little cold to prevent the equipment from over-heating. You will need to lie flat on your back on a movable table beneath an X-ray machine. The heart rhythm, blood pressure and oxygen saturation are monitored throughout the procedure.

The team will prepare an entry point for the catheter, usually at the neck or occasionally the groin. Local anaesthetic is injected to numb the skin and a small plastic tube (sheath) is inserted into a vein. A catheter tube is then inserted through the sheath and guided into the heart and lung arteries. The pressure is measured throughout the procedure. Blood samples are obtained to measure oxygen levels. A saline solution is injected through the catheter to measure the blood flow through the lungs.

A vasodilator challenge may be done during the procedure. This can help guide your treatment. It involves giving a short-acting medication, often something that can be breathed in from a nasal cannula, to see if the pressure in your lungs falls in response to that medication.

A 'fluid challenge' might be given at the time of the procedure. This is to see how the heart copes with a little extra fluid and can help work out why the pressure is high in the lungs.

You may be asked to undertake some form of exercise during the procedure. This is to see how the heart and the pressure responds to working a bit harder than when resting. It may involve turning the pedals of a special exercise bike during the test and can give a bit more information about how the heart and lungs work together.

Please affix patient label or complete details below.

Full name:

Hospital number:

NHS number:

DOB:

PIC 262: patient agreement to PI 262 - right heart catheterisation for pulmonary hypertension

Intended procedure/surgery

Statement of healthcare professional

(To be filled in by healthcare professional with appropriate knowledge of proposed procedure, as specified in consent policy).

I have explained the procedure to the patient. In particular I have explained:

The intended benefits: to measure the pressures inside your heart and the main blood vessels of your lungs. This will help your doctors to diagnose and manage conditions such as pulmonary hypertension and heart failure and determine which treatments you may need.

Significant, unavoidable or frequently occuring risks: as listed on page four of PI 262 right heart catheterisation for pulmonary hypertension.

Additional risks specific to you or your operation - please specify below:

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Any extra procedures, which may become necessary during the procedure:

- ☐ Pulmonary angiogram
- ☐ Nitric oxide challenge

Other procedure - please specify below:

.....

.....

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

This procedure will involve local anaesthesia and occasional sedation.

Healthcare professional

Signed: .....

Date: .....

Name (PRINT): .....

Job title: .....

Contact details

.....

.....

Statement of patient

Please read the patient information and this form carefully. If the treatment has been planned in advance, you should already have your own copy of which describes the benefits and risks of the proposed treatment. If not, you will be offered a copy now. If you have any further questions, do ask - we are here to help you. You have the right to change your mind at any time, including after you have signed this form.

Yes	No	
☐	☐	**I agree** to the procedure or course of treatment described on this form and have read this information leaflet on insert title (PI 262) and had the opportunity to ask questions.
☐	☐	**I agree** to the use of photography for the purpose of diagnosis and treatment and I agree to photographs being used for medical teaching and education.

- **I understand** what the procedure is and I know why it is being done, including the risks and benefits.

Please affix patient label or complete details below.

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- **I understand** that any tissue removed as part of the procedure or treatment may be used for diagnosis, stored or disposed of as appropriate and in a manner regulated by appropriate, ethical, legal and professional standards.
- **I understand** that any procedure in addition to those described on this form will be carried out only if necessary to save my life or to prevent serious harm to my health.
- I have listed below any procedures **which I do not wish to be carried out** without further discussion:

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.....

I have been told in the past by Public Health that I am at increased risk of CJD (Creutzfeldt Jakob disease) or vCJD (variant Creutzfeldt Jacob disease).

☐ Yes ☐ No

(Where patient indicates 'yes' health professional to refer to Trust CJD procedure DN092)

Statement of interpreter (where appropriate)

If an interpreter was present to support this consent, please state the name and number of the interpreter present:

Date: ……

Interpreter's number:……

Name (PRINT): ……

If a telephone / video service has been used, please document the name of the interpreter and company below

.....

.....

.....

Patient

Patient signature: ……

Date: ……

Name (PRINT): ……

Confirmation of consent

(To be completed by a health professional when the patient is admitted for the procedure, if the patient has signed the form in advance).

On behalf of the team treating the patient, I have confirmed with the patient that they have no further questions and wish the procedure to go ahead.

Signed: ……

Date: ……

Name (PRINT): ……

Job title: ……

Important notes (tick if applicable).

☐ Patient has advance decision to refuse treatment

☐ Patient has withdrawn consent (ask patient to sign/date here)

Patient signature: ……

Date: ……

Name (PRINT): ……

Please use and attach Consent form C for a young person who is not Gillick competent.

A pulmonary angiogram may be performed, injecting iodine contrast (dye) and taking an x-ray movie of the blood vessels in the lungs. Once the procedure has been completed, the catheter is removed. The doctor will apply pressure and apply a dressing over the entry site. You will be asked to apply pressure on the dressing for 10-15 minutes.

What are the risks of having a right heart catheterisation?

Most people under go RHC without any problems, however, there are risks associated with any medical procedure. The risks associated with RHC are listed here for your information. A doctor will also discuss these risks with you, answer any questions you have, providing any further information if needed to be sure you understand everything. Only then will you be asked to sign a consent form.

Common (1 in 20 – 1 in 100)

- Minor bleeding and bruising at the site of catheter insertion
- Abnormal heartbeat lasting several seconds that settles by itself
- Difficulty passing the catheter into the vein
- Flushed hot feeling that settles quickly
- Back discomfort related to lying flat

Uncommon (1 in 100 – 1 in 1,000)

- Local anaesthetic around your voice box may cause temporary loss of voice – this wears off quickly
- Fainting reaction
- Abnormal heart rhythm that continues for a longer time and may need treatment either to slow down a fast heartbeat or speed up a slow one
- Punctured artery near the access site that may cause bruising or bleeding and need repair
- Allergic reaction
- Air entering the vein and lodging in the lung
- Collapsed lung

Rare - (1 in 1000 – 1 in 10,000)

- Life threatening damage to the lung blood vessels
- Stroke
- Infection
- Death
- If performing a pulmonary angiogram, we will inject iodine x-ray contrast (dye); dye may rarely (1 in 2,000) cause an allergic reaction or impair your kidney function

What happens after the procedure?

You will be taken back to the room to recover. The team will discuss the results of your tests and management plan. You may start new medication before you go home.

Avoid heavy lifting for 24 hours. Things like coughing, sneezing or bending over can cause the site to bleed a little, so applying support to the puncture site if needed can help. The dressing can usually be removed the next day.

If you experience swelling, increased pain or bleeding after you leave hospital, you should apply direct pressure to the site and seek assistance from your local doctor or emergency department.

Research

Royal Papworth Hospital is a teaching hospital and you may be approached to participate in research.

Contact numbers

For further information please contact the pulmonary hypertension specialist nurses on 01223 638826.

Royal Papworth Hospital NHS Foundation Trust

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Alternative versions of this leaflet

Large print copies and alternative language versions of this leaflet can be made available on request.

View a digital version of this leaflet by scanning the QR code.

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