

Patient information leaflet

Right heart catheterisation (RHC)

Introduction

This guide is for patients undertaking a right heart catheter (RHC) procedure. It explains why your doctor wants you to have it, how to prepare for it, any risks associated and how to look after yourself after the procedure. It is an invasive procedure performed in an operating theatre style setting and under x-ray guidance, to measure the pressures inside your heart.

Why might I need a right heart catheter?

A RHC is needed when your doctor needs to know the pressure inside your heart and lungs. Using these measurements, your doctor can manage your condition. One of the commonest reasons to do this procedure is to look for a condition called pulmonary hypertension (high pressure in the lungs). Other reasons to do this procedure include assessment before heart surgery, transplant or management of heart failure amongst others.

Preparation for the procedure

This is usually done as a day case procedure. You will be informed on the timing and ward to attend before your admission. It is advisable to come prepared with an overnight bag in case you may need to stay longer. It is advised you leave valuables, such as jewellery, at home.



Fasting

The day before the procedure you can eat and drink as normal. Before bedtime, please drink two glasses of water. Also drink one large glass of water at 6 am, this is to avoid dehydration. You can eat food up until 2 am the morning of the procedure and you can drink clear fluids until 6 am.

After 6 am in the morning you MUST remain nil by mouth. Do not eat or drink.

Medications

Please bring your usual medications on admission. Please follow the instructions given at pre assessment about any medications that can/cannot be taken on the morning of the procedure. There will be specific instructions if you are on blood thinners or pulmonary vasodilators. If you are not sure, please call the GUCH Clinical Nurse Specialist Team on 0203 765 8608 to confirm.

Transport

Please make your own travel arrangements home from Bart's Hospital. We advise you avoid public transport and walking immediately after the procedure. If you are entitled transport, please contact the transport department on: 0207 767 3344

What to expect on the day of your procedure

On the day of your admission, you will be admitted by one of the nursing team, who will take a brief history and prepare you for the procedure. A doctor doing or assisting in your procedure will evaluate you again and confirm you are ready and safe for the procedure. If needed, please ask for an interpreter beforehand.

Please be aware that although the timing of the procedure is usually set and planned from the day before, emergencies or unexpected events may delay your procedure.

You will be asked to continue fasting until your procedure is complete. You will be given fluids through a drip if you are at risk of dehydration.

Inpatient entertainment systems or TVs are not available on all wards, so it is advisable to bring devices for entertainment.

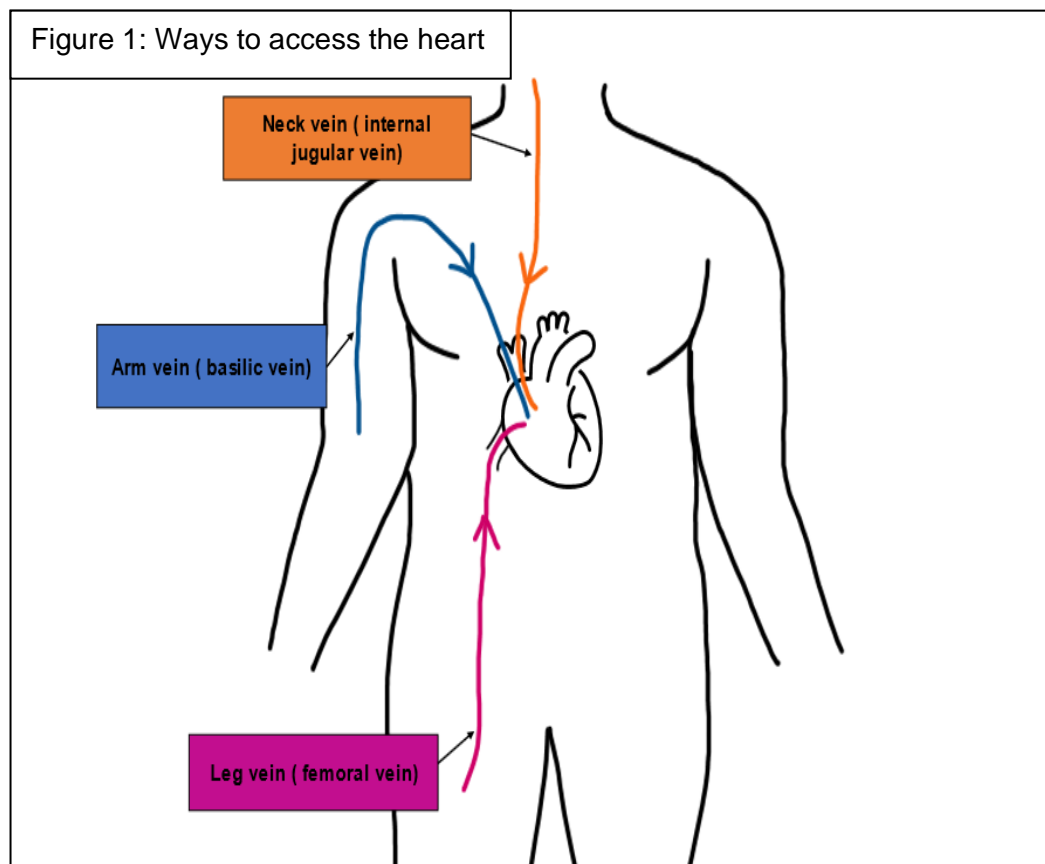
What happens during the procedure

Your doctor will do your RHC in the cardiac catheter laboratory (see picture 1). The procedure may vary, depending on your condition:



- You will be asked to change into a hospital gown and empty your bladder. Remove all jewellery, dentures and hearing aids can be left in place.
- A cannula (tube going into a vein) will be placed in your hand or arm before the procedure, for injection of medicine and to give fluids, if needed.
- In the catheter lab, you will be asked to lie on the procedure table (see picture 1) and be connected to a device monitoring your heart rate, oxygen levels and blood pressure during the procedure.
- We do not routinely give a sedative during a RHC as it can affect the pressure readings. But in some circumstances, this may be necessary and less often and for very specific reasons it can be done under a general anaesthetic (GA). This will usually be arranged and decided before the procedure.

- Once all the checks are complete, and it is safe to proceed, after cleaning and numbing the skin, we will place a cannula (tube) into a vein in your arm or top of the leg, and rarely from the neck. Through that we will pass a catheter (also a tube) through the cannula and guide it directly to your heart, be assured this is usually painless. (See Figure 1)



- You will be awake for the procedure, the staff in the catheter lab will be calling out results and talking about information related to your procedure. You will be instructed on taking deep breaths at times.
- Once your doctor obtains all the information needed, the catheter will be removed, and you will return to the ward for observation and recovery.

What other procedures could be done during the right heart catheter?

Coronary angiogram

In some circumstances, we may need to assess the arteries of your heart. This is called a coronary angiogram or a left heart catheterisation. This is usually planned. Another information leaflet detailing left heart catheterisation will be offered to you.

MRI and RHC

In some cases, you will undergo a RHC followed by a Magnetic Resonance Imaging (MRI) scan. Whilst the catheter remains in your heart, you will be transferred in a wheelchair or bed to the MRI scanning room. There you will have an MRI to measure flow in your pulmonary arteries providing us with simultaneous flow and pressure data. From there, you will return to the ward and the catheter will be removed on the ward.

What happens after the right heart catheter

Once on the recovery ward, all the monitoring devices and cannulas will be removed. You can eat and drink normally after the procedure. You will be monitored on the ward for a period after the procedure.

At home, check the insertion (cut) site for bleeding, unusual pain, swelling, and abnormal discoloration or temperature change at or near the insertion (cut) site. A small bruise is normal. Your doctor may advise you not to do any strenuous activities for a specified period. They may advise on when you can return to work and resume normal activities.

Seek medical help if you have any following, by calling 111 or 999 depending on how unwell you feel.

- Shortness of breath or trouble breathing
- Fever of 100.4 °F (38°C) or higher, or chills
- Increased pain, redness, swelling, or bleeding or other drainage from the insertion (cut) site.
- Coolness, numbness or tingling, or other changes in the affected extremity
- Chest pain or pressure, nausea or vomiting, profuse sweating, dizziness, or fainting.
- Coughing up blood

What are the risks of right heart catheter

Possible risks of RHC include:

- Bruising of the skin at the site where the catheter is inserted.
- Excessive bleeding from the puncture site where the cannula was.
- Partial collapse of your lung if we access your heart through the neck or chest veins (rarely performed).

Other, rare complications may include:

- Abnormal heart rhythms (you will feel this as palpitations or an irregular heartbeat)
- Cardiac tamponade (fluid build-up around your heart that affects its ability to pump blood effectively)
- Low blood pressure
- Infection
- Air embolism (air leaking into your heart or chest area)
- Damage to the main artery in your lung (pulmonary artery dissection). This can result in serious bleeding, making it hard to breathe.
- Risks of stroke, death or heart attack are less than 1%.

For some people, having to lie still on the procedure table for the length of the procedure may cause some discomfort or back pain. There may be other risks, depending on your specific condition. Be sure to discuss any concerns with your healthcare provider before the procedure.

Large print and other languages

This information can be made available in alternative formats, such as easy read or large print, and may be available in alternative languages, upon request. For more information, speak to your clinical team.

এই তথ্যগুলো সহজে পড়া যায় অথবা বৃহৎ প্রিন্টের মত বিকল্প ফরম্যাটে পাওয়া যাবে, এবং অনুরোধে অন্য ভাষায়ও পাওয়া যেতে পারে। আরো তথ্যের জন্য আপনার ক্লিনিক্যাল টিমের সাথে কথা বলুন।

Na żądanie te informacje mogą zostać udostępnione w innych formatach, takich jak zapis większą czcionką lub łatwą do czytania, a także w innych językach. Aby uzyskać więcej informacji, porozmawiaj ze swoim zespołem specjalistów.

Macluumaadkaan waxaa loo heli karaa qaab kale, sida ugu akhrinta ugu fudud, ama far waa weyn, waxana laga yabaa in lagu heli luuqaado Kale, haddii la codsado. Wixii macluumaad dheeraad ah, kala hadal kooxda xarunta caafimaadka.

Bu bilgi, kolay okunurluk veya büyük baskılar gibi alternatif biçimlerde sunulabilir, ve talep üzerine Alternatif Dillerde sunulabilir. Daha fazla bilgi için klinik ekibinizle irtibata geçin.

یہ معلومات متبادل فارمیٹس میں دستیاب کی جا سکتی ہیں، جیسا کہ پڑھنے میں آسان یا بڑا پرنٹ اور درخواست پر متبادل زبانوں میں بھی دستیاب ہو سکتی ہیں۔ مزید معلومات کے لیے، اپنی کلینکل ٹیم سے بات کریں۔!

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Please contact us if you need general information or advice about Trust services:

www.bartshealth.nhs.uk/pals

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