Ablation for Atrial Fibrillation

Cardiac Services

Introduction

This booklet aims to:

- Tell you more about this procedure which your doctor has already explained to you
- Help you understand what will happen to you
- Explain the possible risks of the procedure
- Explain other alternatives if you do not wish to go ahead with the procedure
- Make sure you know as much as possible about the procedure before you agree to it and sign the consent form.

The electrical system of the heart:

The heart has four chambers, two upper chambers called the atria (right and left) and two lower chambers called the ventricles (right and left). The heart has its own electrical system. The natural pacemaker of the heart is situated in the upper portion of the right upper chamber and generates electrical impulses which spread throughout the upper and lower chambers of the heart using its specialised wiring system. This enables the upper and lower chambers of the heart to beat in a regular coordinated manner called 'sinus rhythm'. A normal adult heart generally beats at between 60 and 100 beats per minute.

What is atrial fibrillation?

An abnormal heart rhythm is called an 'arrhythmia'. The type of abnormal heart rhythm you have is called atrial fibrillation. It is one of the most common types of abnormal heart rhythms. During atrial fibrillation, the heart beats irregularly, usually fast and in a chaotic fashion. In the vast majority of cases, atrial fibrillation originates in the left upper chamber of the heart. Usually, there are four veins ('pulmonary veins') which drain into the left upper chamber of the heart, bringing oxygenated blood from the lungs. Abnormal electrical signals present in the mouth of the pulmonary veins usually trigger atrial fibrillation. However, additional triggers in the upper chambers of the heart can also be present.

There are different types of atrial fibrillation, namely, 'paroxysmal' in which the abnormal heart rhythm starts and stops on its own or 'persistent', when either drugs or other treatments have to be used to restore normal rhythm.

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- **Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available**
- **If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111**
- **Keep the environment clean and tidy**
- **Let's work together to keep infections out of our hospitals and care homes.**

Ablation for atrial fibrillation

Ablation for atrial fibrillation is usually undertaken if:

- Patients continue to experience symptoms due to atrial fibrillation which are difficult to control with medication
- Medication that has been prescribed to control symptoms due to atrial fibrillation has been associated with significant side effects
- Patients do not wish to take medication to control the heart rhythm in the longer term. In spite of a successful ablation, patients may need to take blood thinning medication indefinitely
- If atrial fibrillation is thought to be responsible for a decrease in pumping function of the heart

Consent

We must seek your consent for any procedure or treatment beforehand. Your doctor will explain the risks, benefits, and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

Benefits of the procedure

Your doctor has recommended that you undergo an ablation for atrial fibrillation. The main benefit of the ablation procedure is to improve your symptoms or the pumping function of the heart by destroying, using either radio frequency energy ('burning' or 'cauterising') or cryotherapy ('deep freezing'), the abnormal electrical signals found in the mouth of the pulmonary veins that trigger the arrhythmia. In the process, recurrence of atrial fibrillation is prevented and/or normal heart rhythm restored. Newer forms of energy for ablation are emerging for example, PFA or pulsed field ablation, etc. are also sometimes used.

Apart from ablation near the mouth of the pulmonary veins, there may be a need to undertake ablation elsewhere in the upper chambers of the heart. Your doctor will inform you the type of ablation that is planned for you.

Risks:

Ablation for atrial fibrillation is a safe procedure. However, as with any invasive procedure, it can be associated with a small degree of risk. The risks will be discussed by your doctor before you are asked to sign a consent form.

The commonest complication (5 in 100 chance) which can occur is bleeding or bruising around the area of tube insertion. A small lump may develop, called a haematoma, which should go down in a few days.

Other possible risks of the procedure are as follows:

- 1 in 100 risk of damage to the blood vessels in the groin requiring further treatment, including an operation
- 1 in 100 risk of collection of fluid in the sac surrounding the heart ('pericardial effusion'). If it is found that the fluid is pressing on your heart, it may need to be removed, by inserting a drain, in an emergency. The drain is normally inserted from beneath the lower end of your breast bone. This problem usually settles in 2-3 days
- Less than 1 in 100 chance of a clot formation in the heart leading to a 'minor' (TIA - transient ischaemic attack) or 'major' stroke or occlusion of the blood vessel elsewhere in the body; damage to the wiring system of the heart resulting in the need for a temporary or permanent pacemaker; narrowing of the veins which insert into the left upper chamber of the heart ('pulmonary vein stenosis'); damage to the nerve supplying the diaphragm ('phrenic nerve palsy') resulting in shortness of breath; excessive radiation or sedation
- 1 in 500 risk of an infection of the groin

- 1 in 1000 risk of a channel forming between the left upper chamber of your heart and the food pipe / gullet ('atrio-oesophageal fistula'); a decrease in blood supply to the heart ('myocardial infarction'); too much sedation; an allergic reaction to medication or death

In addition, there may be a need to restore your heart to a normal rhythm using medication or electrical shock treatment ('direct current cardioversion'). This is most often needed when ablation is undertaken for atrial fibrillation which is present all the time ('persistent').

The procedure involves exposure to radiation. Your doctor feels that the benefits of the procedure outweighs any associated potential harm.

If you are concerned about the possible risks from radiation as a result of the procedure, in the first instance, discuss it with your doctor. If you need further information about radiation, contact public health England at https://www.gov.uk/government/organisation/public-health-england.

It is not uncommon for extra heart beats, palpitations, or 'flutters' to occur in the first few weeks following the procedure.

Some patients may also experience a recurrence of atrial fibrillation, the recurrence rate being higher when ablation has been undertaken for 'persistent' rather than 'paroxysmal' atrial fibrillation. Some patients may require multiple procedures to eliminate atrial fibrillation.

Before we can take you up for an ablation, you will need to be on uninterrupted blood thinning medication for example, apixaban, dabigatran, edoxaban, rivaroxaban for at least 3 weeks before we can do the procedure. If you are on warfarin (or phenindione / acenocoumarol 'sinthrome'), levels will need to be in the desired range (INR 2.0-3.0) for at least 3 weeks prior to the procedure. Occasionally, we may have to do a special scan of your heart through your food pipe ('transesophageal echocardiogram') before the procedure in order to ensure that there are no clots in the heart.

What happens if I decide not to have the procedure?

If you choose not to have the procedure, you may continue to have symptoms and may need to continue to take tablets ('medical therapy') or the pumping function may not recover. If your doctor has recommended an ablation, they will explain to you individually the reasons for this and your options if you choose not to have this procedure. Please take this opportunity to ask questions and discuss any concerns that you may have.

What preparation is needed?

In the weeks prior to the ablation:

- If you are on warfarin / phenindione / acenocoumarol ('sinthrome'), as soon as you receive the letter from the New Cross Hospital that you are on the ablation list, inform your Anticoagulation Clinic that you are awaiting an ablation and require weekly INR tests
- Once you have started your weekly tests, you need to telephone 01902 694271 and leave a message on our answering machine giving us the result of your INR. You will need to do this each time you have a test
- When asked to leave your message, please speak clearly and state your full name, hospital number, INR result and the date it was taken
- Once your INR has reached a level of 2.0 or more, for 3 consecutive weeks as a minimum, you will be considered for ablation. We would ask you however, to continue with weekly tests until you have had your procedure. We currently have a waiting list, and we will contact you once an appointment has become available
- If you are taking one of the newer anticoagulants (NOAC's/DOAC's) we would ask you to telephone us on a weekly basis to confirm that you have taken your medication on a daily basis. It is important (when leaving a message) that if you feel you have missed a dose, this is highlighted. As with warfarin /phenindione / acenocoumarol ('sinthrome'), you will need to be on one of the newer anticoagulants for at least 3 weeks before you will be offered an ablation procedure

- All patients are also seen by the Arrhythmia Nurse in the Out Patient Clinic a few days prior to the procedure

On the day of the procedure

- You will be admitted to the Cardiology Day Care Ward
- You will be asked not to eat or drink for about 4 hours prior to the procedure
- Bring all your normal medications with you in their original containers and your last prescription
- Your doctor may ask you to stop some or all of your medication for a few days prior to the procedure
- We need to know if you have any allergies
- The nurse will shave the site of the insertion of the tubes. You may wish to perform this yourself in the privacy of your home
- A doctor or a nurse will ask you to reconfirm your consent
- Please use this opportunity to raise any concerns you may have
- You will be fitted with a wristband which will contain your details. It ensures that staff can identify you correctly and give you the right care. It is important that you do not remove it until you go home
- Pre-procedure checks will include blood pressure, pulse, weight, height, heart tracing and blood tests
- We will provide you with a gown and disposable paper pants to change into and wear during the procedure. A small plastic tube will be inserted into a vein in your arm; this will allow us to give intravenous medication
- Avoid wearing jewellery, make-up and nail varnish; your wedding ring maybe left on if you wish, we will cover it with tape
- We advise you not to bring large sums of money or valuables with you. If this is unavoidable they should be handed in for safe keeping
- You maybe hospitalised overnight. So please come prepared (dressing gown, slippers and overnight bag etc.) for an overnight stay. Some patients may be suitable to go home the same day. We will let you know if that is the case after your procedure has been undertaken
- Please tell us before the procedure if there is any possibility you may be pregnant as we would want to avoid any exposure to X-rays

Medications:

What to do if you are diabetic?

- If your diabetes is diet controlled, do not have anything to eat or drink for 4 hours prior to the procedure
- If you take tablets to control your diabetes do not take them if you are not having breakfast. You make take them later after your procedure with food
- If your procedure is in the afternoon and you are having breakfast, take your normal tablets
- If you normally take metformin tablets do not take them on the day of the procedure and for a period of 48 hours following the procedure

Diabetics on insulin should follow these instructions:

- If your procedure is in the morning: Don’t have any breakfast and don’t take your usual morning insulin. We will try and ensure that you are first on the list
- You will be offered food and your usual morning insulin after the procedure

- If your procedure is in the afternoon: take half of your morning dose of mixed insulin (minimum 10 units) with breakfast. If you take insulin four times a day, please take your usual morning dose
- Please ensure you bring your insulin, blood glucose monitoring equipment and a snack with you

Further advice can be obtained from the Diabetes Outreach Team on 01902 695310

What to do if you are taking blood thinning medication?

If you take warfarin / phenindione / acenocoumarol ('sinthrome'), or one of the newer anticoagulants (for example, apixaban, dabigatran, edoxaban, rivaroxaban etc.) please continue taking it unless asked not to.

What happens during the procedure?

- The procedure is carried out in a room called the cardiac catheterisation laboratory
- The team involved will consist of doctors, nurses, cardiac physiologists, radiographers and if necessary, representatives from industry. If the procedure is being performed under a general anaesthetic, the anaesthetic team will also be present
- You will be taken to the catheterisation laboratory on your bed and transferred to the X-ray table, which can be narrow. You will be lying on your back with your head supported throughout the procedure
- Small adhesive electrodes will be attached to your body to monitor your heart rate and rhythm. Your blood pressure and oxygen levels will also be monitored throughout the procedure
- Additional patches may be applied to your back and/or chest
- As most of the procedures are undertaken under sedation, you will be given a sedative to help you relax during the procedure. It is normal practice to also give you oxygen, using a face mask
- If the procedure is being done under a general anaesthetic, the anaesthetic team will 'put you under' or anaesthetise you
- The skin over one or both groins will be cleaned with an antiseptic and you will be covered in sterile towels, only a small area around your groin will be left uncovered
- The skin over the area will be 'frozen' with a local anaesthetic injection following which fine plastic tubes will be inserted into your groin
- You may experience a warm sensation in your chest transiently if dye is injected into your heart
- Wires will be passed through the tubes up to your heart under X-ray screening. Your doctor will cauterise or freeze the abnormal electrical impulses starting usually near the mouth of the pulmonary veins. During the cauterization process ('radiofrequency'), you may feel a 'burning' sensation in your body. If you are undergoing the freezing process ('cryotherapy'), you may get a headache, as if you have had a very cold substance to eat e.g., an ice cream. If freezing energy is used, you may also experience hiccoughs for part of the procedure. This is to ensure that the nerve to the right side of the diaphragm is not affected
- The procedure can last anywhere from two and half to 4 hours. Occasionally it may last longer
- You will be sedated throughout the procedure
- At the end of the procedure, pressure will applied to the top of the leg. A special device ('Femostop') or a stitch ('Z' stitch) may also be applied to your groin to seal the area from which the plastic tubes were passed. The 'Femostop' or 'Z' stitch will be removed prior to discharge

What happens after the procedure?

- You will be helped back from the X-ray table onto your bed
- You will return to the ward on your bed and remain on bed rest for up to 4 hours. On the ward, your heart rate, blood pressure and oxygen levels will be monitored. A repeat heart tracing will also be performed

- A watch will be kept on the groin sites from where the procedure was performed
- If a pressure device has been applied to your groin, the nurse on the ward will remove it at the appropriate time and before you are able to move about
- You will be given food and drink after the procedure
- An ultrasound scan of your heart may be undertaken to check that there is no fluid in the sac which surrounds the heart
- You will be allowed home once you are able to walk about and the dressing on your groin has been checked

Going home advice?

- If you are allowed to go home the same day, it is important that you have the company of a responsible adult overnight and access to a telephone line (land or mobile). Alternatively, it is advisable to have the telephone number of a neighbour, friend or relative who could help you in an emergency. If this is not possible, please inform the waiting list clerk on 01902 694064 before the day of the procedure.
- You should not drive for at least 2 days after an ablation. If in doubt please clarify the driving instructions with your doctor
- You can remove your dressing after 24 hours. A further dressing should not be required; if there is any discharge from your puncture site, contact your GP
- Bruising maybe confined to a small area or extend as far as your knee and may take several weeks to disappear. Any bruising or discomfort should ease within a few days. If you notice your puncture site is hard, swollen, red or warm to touch, or if you develop a fever, contact your GP or contact us on the telephone numbers given at the end of the leaflet, so we can advise you
- If your puncture site starts to ooze a small amount of blood, lie or sit down and apply pressure for five or ten minutes. If slight oozing continues, call your GP. If the bleeding is heavy and forceful (this is unusual), press hard over the puncture site, call an ambulance and explain that you had an ablation
- Advice regarding medication, including blood thinning medication, will be given to you before you are discharged

How to contact us:

Cardiac Catheter Suite
3rd Floor, Heart and Lung Centre, New Cross Hospital
Wolverhampton, West Midlands WV10 0QP, Tel: 01902 694273

If you need to telephone for advice or information after you have been discharged, please use these numbers:

Heart and Lung Centre
New Cross Hospital
Cardiology Wards Telephone 01902 694330 / 694223

Or

Russell's Hall Hospital

Coronary Care Unit 01384 244138

Secretary to Dr Forsey 01384 244178

Additional Information is available from:

Arrhythmia Nurses New Cross Hospital
Heart and Lung Centre
Arrhythmia Nurse Team
01902 684271

Wolverhampton Coronary Aftercare Support Group (WCASG)
Heart and Lung Centre, New Cross Hospital
Wolverhampton, WV10 0QP
Tel: 01902 755695 Mobile: 07889 063647
Fax: 01902 563186 Email: wcasg79@gmail.com

Patient Advice & Liaison Service (PALS)
PALS Coordinator, Patient Liaison Centre
New Cross Hospital Tel: 01902 695362 Mobile: 07880 601085
Pager: 1463 (Dial 01902 307 999 and ask switchboard operator to connect you to the pager, Email: rwh-tr.PALS@nhs.net

Age Concern Wolverhampton
Supportive discharge for anyone aged 50 or over, based in New Cross Hospital
Tel: 01902 695517 or 07753 718929

Asian Support Link Worker
Based in New Cross Hospital
01902 695319, Email: promila.chandel@nhs.net

British Cardiac Patient Association
15 Abbey Road, Bingham, Nottingham, NG13 8EE
Helpline: 01223 846845 (0900-1900 hours)
Website: www.bcpa.co.uk

British Heart Foundation
Greater London House, 180 Hampstead Road
London, NW1 7AW Website: www.bhf.org.uk

DVLA
Drivers Medical Group, Swansea, SA99 1TU
Tel: 0300 7906806 (08:15 – 16:30 hours Monday to Friday)
Website: www.dvla.gov.uk

Walsall Cardiac Arrhythmia Service
Manor Hospital, Walsall
Consultant Cardiologist's: Dr R Jaumdally, Dr A Hamaad or Dr Sunni
Cardiac Arrhythmia Nurse: Jayne Lewis
01922 721172 Ext 7690

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。

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