

Information for Women Undergoing Uterine Artery Embolisation (UAE)

Introduction

This leaflet tells you about the procedure known as uterine artery embolisation (UAE) to treat symptomatic uterine fibroids and explains what is involved and what the possible risks are. It is not meant to be a substitute for informed discussion between you and your doctor, but can act as a starting point for such a discussion. It is almost certain that you are having UAE performed as a pre-planned procedure, in which case you should have plenty of time to discuss the situation with your consultant and the radiologist who will be performing the UAE procedure, and perhaps even your own GP. If you need uterine artery embolisation as an emergency, then there may be less time for discussion, but none the less you should have had sufficient explanation about the risks, benefits and alternatives to treatment before you sign the consent form.

What is uterine artery embolisation (UAE)?

UAE is a technique of treating uterine fibroids by blocking off the arteries that feed the fibroids and making the fibroids shrink. It is performed by a radiologist, rather than a surgeon, and is an alternative to an open surgical operation. Fibroid embolisation was first performed in France in 1995, and since then over 250,000 women have undergone the procedure world-wide.

Why do I need UAE?

Other tests that you have had will have shown that you have uterine fibroids, your gynaecologist or GP should have discussed this with you and determined that these are the cause of your symptoms. They will also have discussed different ways of dealing with them.

What are the alternatives or options?

The options for treating fibroids include an open surgical operation, generally a hysterectomy, where the womb is removed altogether or myomectomy where only the fibroid/s are removed from the womb. In your case, it has been decided that embolisation is an appropriate treatment option.

Who has made the decision?

The doctors in charge of your case, and the radiologist performing the UAE, will have discussed the situation, and feel that this may be the most suitable treatment. However, it is very important that you have had the opportunity for your opinion to be taken into account, and that you feel quite certain that you want the procedure performed. If, after full discussion with your doctors, you do not want UAE carried out, then you must decide against it.

Who will be performing the UAE procedure?

A specially trained doctor called an Interventional Radiologist. Radiologists have special expertise in using x-ray equipment, and also in interpreting the images produced. They use the x-ray images to guide the small tubes (catheters) and guide wires whilst carrying out the procedure. Consequently, Radiologists are the best trained people to insert needles and fine catheters into blood vessels (arteries), through the skin, and place them correctly. Radiographers and Radiology nurses will be present in the room during the procedure. They will introduce themselves at the start of the procedure. Occasionally student radiographers or medical students will be present to observe the procedure.

Where will the procedure take place?

In the Medical Imaging department, in a special "screening" room, which is adapted for specialised procedures.

Can I bring a friend/relative?

Yes, but for reasons of safety they will not be able to accompany you into the x-ray room.

How do I prepare for UAE?

You will need to be an in-patient in the hospital following the procedure. You will be asked to attend the Medical Imaging Department on the morning of the procedure having been asked not to eat for four hours beforehand, though you may be told that it is alright to drink some water. After initial assessment you will be asked to put on a hospital gown. As the procedure is generally carried out using the large artery in the groin, you may be asked to shave the skin around this area. You need to have a needle put into a vein in your arm, so that the radiologist can give you a sedative, antibiotics and painkillers. Once in place, this will not cause any pain. You will also receive a suppository to reduce inflammation. You will have a pair of compression stockings fitted to your lower legs as a precautionary measure against developing deep vein thrombosis.

- You will have had some blood tests performed before the procedure to check that you do not have an increased risk of bleeding.
- You will need someone to drive you home and to look after you for 24 hours.
- If you have any allergies or you have previously reacted to intravenous contrast medium, you must let the doctor know. Intravenous contrast medium is the injection we give you during some scans.
- If you are diabetic, please contact the Medical Imaging Department on **01392 402336 selecting option 2, in-patient enquiries, option 6** X-ray Special Procedures.

- If you normally take any medication to thin your blood (anticoagulation or antiplatelet drugs) such as: **warfarin / clopidogrel / aspirin / non-steroidal anti-inflammatory drugs (NSAIDs / brufen / ibrufen / nurofen) / dabigatran (Pradaxa) / rivaroxiban (Xarelto) / Apixaban (Eliquis) / phendione / acenocoumarol – then these may need to be stopped or altered. Please contact the Medical Imaging Department on 01392 402336 selecting option 2, in-patient enquiries and then option 6 for X-ray Special Procedures.**

- Other medication should be taken as normal.
- A pregnancy test will be performed on arrival.

What actually happens during the UAE?

You will lie on the x-ray table, generally flat on your back. You may also have a monitoring device attached to your chest and finger, and may be given oxygen through small tubes in your nose. The radiologist will keep everything as sterile as possible, and will wear a theatre gown and operating gloves. The skin near the point of insertion, usually the groin, will be thoroughly cleaned with antiseptic, and then most of the rest of your body covered with a theatre towel. The skin and deeper tissues over the artery in the groin will be anaesthetised with local anaesthetic, and then a needle will be inserted into this artery. Once the radiologist is satisfied that this is correctly positioned, a guide wire is placed through the needle, and into this artery. Then the needle is withdrawn allowing a fine, plastic tube, called a catheter, to be placed over the wire and into this artery. The radiologist will use the x-ray equipment to make sure that the catheter and the wire are then moved into the correct position, into the arteries which are feeding the uterus and fibroid(s). These arteries are called the right and left uterine arteries. A special x-ray dye, called contrast medium, is injected down the catheter into these uterine arteries, and this may give you a hot feeling in the pelvis.

Once the fibroid blood supply has been identified, fluid containing thousands of tiny particles is injected through the catheter into these small

arteries which nourish the fibroid. This silts up these small blood vessels and blocks them so that the fibroid is starved of its blood supply. Both the right and the left uterine arteries need to be blocked in this way. It can often all be done from the right groin, but sometimes it may be difficult to block the branches of the right uterine artery from the right groin, and so a needle and catheter needs to be inserted into the left groin as well. At the end of the procedure, the catheter is withdrawn and the radiologist then presses firmly on the skin entry point for several minutes, to prevent any bleeding. Alternatively the radiologist may insert a small stitch into the puncture site to prevent bleeding.

Will it hurt?

When the local anaesthetic is injected, it will sting to start with, but this soon passes off, and the skin and deeper tissues should then feel numb. The procedure itself may become painful. However, there will be a nurse, or another member of staff, standing next to you and looking after you. If the procedure does become too painful for you, then they will be able to arrange for you to have some painkillers through the needle in your arm. You will be connected to a PCA (Patient Controlled Anaesthesia) pump. This will be controlled by you and by pressing a button will deliver drugs which are strong painkillers. The PCA pump limits how much painkiller is delivered and will only allow a certain amount to be delivered every 5 minutes. As the dye, or contrast medium, passes around your body, you may get a warm feeling, which some people can find a little unpleasant. However, this soon passes off and should not concern you.

How long will it take?

Every patient's situation is different, and it is not always easy to predict how complex or how straightforward the procedure will be. Some UAE procedures do not take very long, perhaps only 30 minutes. Other embolisations may be more involved, and take rather longer, perhaps over two hours. As a guide, the procedure takes on average 45-60 minutes and you can expect to be in the Medical Imaging Department for about two hours.

What happens afterwards?

You will be taken to a ward on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no untoward effects. They will also look at the skin entry point to make sure there is no bleeding from it. You will generally stay in bed for 4-6 hours, until you have recovered. This will be less if a stitch has been placed in the groin at the end of the procedure. You will generally be kept in hospital overnight or for a day or two. Once you are home, you should rest for three or four days.

What will happen to the results?

A report of the procedure will be recorded in your notes immediately and also sent to your specialist within 48 hours.

Are there any risks or complications?

UAE is usually a safe procedure, but there are some risks and complications that can arise, as with any medical treatment. There may occasionally be a small bruise, called a haematoma, around the site where the needle has been inserted, and this is quite normal. If this becomes a large bruise, then there is the risk of it getting infected, and this would then require treatment with antibiotics. Most patients feel some pain afterwards. This ranges from very mild pain to severe crampy, period-like pain. It is generally worst in the first 12 hours, but will probably still be present when you go home. While you are in hospital this can be controlled by powerful pain killers. You will be given further tablets to take home with you. Most patients get a slight fever after the procedure. This is a good sign as it means that the fibroid is breaking down. The pain killers you will be given will help control this fever. Try and take these painkillers regularly to keep on top of any pain you may experience. A few patients get a vaginal discharge afterwards, which may be bloody. This is usually due to the fibroid breaking down. Usually, the discharge persists for approximately two weeks from when it starts, although occasionally it can persist

intermittently for several months. This in itself is not a medical problem, although you may need to wear sanitary protection. If the discharge becomes offensive and if it is associated with a high fever and feeling unwell, there is the possibility of infection and you should ask to see your gynaecologist urgently. More serious complications of UAE include severe uterine ischemia leading to necrosis and infection. This occurs in approximately two in every hundred women having the procedure. The signs that the uterus is infected after embolisation include severe pain, pelvic tenderness and a high temperature. Lesser degrees of infection can be treated with antibiotics. Once severe infection has developed, it is generally necessary to have an operation to remove the womb, a hysterectomy. One patient has died after fibroid embolisation because of severe infection (not in this hospital). If you feel that you would not want a hysterectomy under any circumstances, then it is probably best not to have UAE performed. Rarely, a small operation may be required whereby a telescope (hysteroscopy) is passed through the vagina and cervix into the womb in order to remove any fibroid tissue that may have become detached from the main body of the womb (Hysteroscopic resection).

In addition to severe infection rarer severe major complications have been reported which include, but are not limited to, pulmonary embolus (sudden blockage of the major artery that carries blood from the heart to the lungs) and death. At least three deaths are documented in the literature associated with UAE. One death occurred secondary to a large pulmonary embolus and two deaths resulted from uterine necrosis and sepsis with multi-organ system failure.

Advantages

UAE is generally a safe alternative to surgical myomectomy, resulting in shorter hospital stay, fewer and less severe adverse events, and similar rates of technical and clinical success.

What else may happen after this procedure?

Some patients may feel very tired for up to two weeks following the procedure, though some people feel fit enough to return to work three days later. However, patients are advised to take at least two weeks off work following UAE. Approximately 8% of women have spontaneously expelled a fibroid, or part of one, usually six weeks to three months afterwards. If this happens, you are likely to feel period like pain and have some bleeding. A very few women have undergone an early menopause, the change of life, after this procedure. This has probably happened because they were at this time of life to start with. In our experience we have not seen this in women under 45 years of age.

What is the success of UAE?

This procedure has been performed since 1995 and short and medium term results are good. Long term results are not available yet. The majority of women are pleased with the results, and most fibroids have shrunk by about 50-70% of the size they were before undergoing the procedure.

Some women, who could not become pregnant before the procedure because of their fibroids, have become pregnant afterwards. However, if having a baby in the future is very important to you, you need to discuss this with your doctor as it may be that an operation is still the better choice.

Finally

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure, before you sign the consent form. UAE is considered a safe procedure, designed to improve your medical condition and save you having a larger operation. There are some risks and complications involved (which in very rare cases can have severe consequences including death), and because there is the possibility of a hysterectomy being necessary, you do need to make certain that you have discussed all the options available with your doctors.

Contact us

If you found reading your leaflet difficult, you do not understand what it means for you, if you have any queries or concerns you can contact us on: 01392 402336 and we can talk it through.

How to get to the Royal Devon & Exeter Hospital at Wonford

Please refer to the enclosed “Welcome to the Medical Imaging Department” leaflet or use the Trusts website for the latest information:

www.rdehospital.nhs.uk/our-sites

For more information on the Medical Imaging Department, please visit our website:

www.rdehospital.nhs.uk/services/medical-imaging-radiology-x-ray/

For more information please visit this website:

www.ncbi.nlm.nih.gov/pmc/articles/PMC3036365/

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