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Medical Thoracoscopy: Patient Information

One of the tests that you need to sort out your chest problem is called a Medical Thoracoscopy. This leaflet explains the test.

What is a Medical Thoracoscopy?

Fluid has formed in the space between your lung and the chest wall (known as the pleural space). A medical thoracoscopy uses a small telescope which is inserted in to the pleural space through a small skin incision over the ribs.

The fluid can be drained off and samples can be taken from the area that produces the excess fluid to see why it has formed.

Further treatment, if needed, can then be planned.

How to prepare

You should not be taking any blood thinners before the procedure (Warfarin, Clopidogrel, Ticagrelor etc). If you are on blood thinners (anticoagulants) then there are risks associated with stopping them. In some patients (eg those with metal heart valves) we need to change to an injectable anti-coagulant to cover the procedure. Please make sure you understand the plan with your blood thinners when you are discussing your procedure with your doctor in clinic. (You can take aspirin as usual). Please let the medical or nursing staff know if you are taking these medications.

If you have diabetes we should have given you instructions on what to do with your treatment.

You should fast (have nothing to eat or drink) for 4 hours before the procedure. You can, however, take your usual morning tablets with a sip of water when you first wake up on the day.

Please bring your medications with you.

On the day

Patients will either be admitted to the Respiratory Ward the day before or you will be asked to attend Day Case Surgery on the morning of the procedure. If you are on the ward, you will be brought down to the Day Case Surgical Unit, where the nursing staff will check some medical details with you. The doctor performing the procedure will then discuss the procedure again and go through the consent form with you. You can ask any further questions that you may have at this time. We may check your clotting ability with a blood test at this stage. If it is abnormal we may decide that it would not be safe to proceed. We may also re-check the ultrasound scan to ensure it is safe to proceed.

A needle is put in your arm through which, in the operating theatre immediately before the procedure, a sedative and a pain killer are given. These can be topped up during the procedure.

If we decide to offer a deeper anaesthesia, this will be discussed with you before the procedure starts.

In the operating theatre you will be asked to lie flat, on your side on the operating table. You will have pillows around you to make you as comfortable as possible.

Your blood pressure, pulse and oxygen levels will be recorded throughout the test and extra oxygen will be given through a mask or nasal cannulae during the procedure.

An ultrasound will be used to locate the fluid to make sure there is still enough to continue safely with the procedure. **Please note if there is**

not enough fluid the procedure will be discontinued at that point. You will be asleep or extremely drowsy throughout the examination.

During the procedure a small (2-3 cm) cut is made in the skin, through which the telescope and other instruments can be inserted. All the fluid will be removed. The lung will partially deflate which allows us to inspect the inside of the chest wall and the coating of the lung. We may take small biopsies at this stage.

If we think the fluid may come back, we may coat the pleural surfaces with medical talc. This is done through the same equipment that allowed us to put the telescope into the chest cavity. This is to try and stick together the two layers of pleural membrane (which resemble a double layer of cling-film coating the outside of the lung) and prevent the fluid re-accumulating between them.

After completion of this part of the procedure, we remove the telescope and leave in place a drainage tube to drain any additional fluid and air – allowing the lung to re-inflate. Re-inflation may happen more or less immediately or may take a day or so. Sometimes, particularly if the fluid has been present a long time or if the lung surface is coated in a thickened peel, the lung may not fully expand (we call this “trapped lung”) and we would need to consider an alternative to simply removing the drain.

You may have some minor recollection of the procedure but this is usually hazy and most patients remember little of what went on. If you are in any pain we will provide necessary medication – this is sometimes a particular issue after talc is used (as it acts by sticking the pleural membranes together by creating inflammation - this is

known as “pleurisy”).

You will return to the ward with a chest drain in place which is attached to a bottle/container. Once this stops bubbling and the lung has re-expanded the drain will be removed (later the same day or, more commonly, the following day). We are introducing a new device which measures the drainage electronically and does not bubble.

On rare occasions the bubbling continues beyond 24 – 48 hours – in which case you would need to remain in hospital until it stops.

If the lung is trapped and does not re-expand, we will discuss options for the next step.

Is there an alternative test that I can have?

The alternative to Medical Thoracoscopy is a referral to the thoracic surgeons in Southampton for a similar procedure termed a Video-Assisted Thoracoscopy (VATS).

VATS is performed under general anaesthesia (in which you are fully unconscious). General anaesthetics are not always appropriate if you have other medical conditions. Medical Thoracoscopy is usually performed under local anaesthesia with conscious sedation and may be more suitable for patients who are not particularly well.

Medical Thoracoscopy, as it is performed 'in-house', minimises referral delays and may involve a shorter length of stay. Balanced against this, VATS, as a more invasive procedure, yields bigger specimens for laboratory analysis - this can be important in difficult cases.

Sometimes we may recommend a Medical Thoracoscopy as the initial procedure and only proceed to a VATS if the specimens cannot give a

definite answer (this may be the case in between 1 in 10 and 1 in 20 patients).

What are the risks of medical thoracoscopy?

The procedure is normally very safe. You may experience some discomfort during or after the procedure but you will be given pain relief to minimise this.

1. Bleeding

Like all biopsy procedures there is a small risk of bleeding or damage to internal organs – however this complication is rare. In severe cases an operation may be required to treat this.

2. Infection

Infection around the skin wound occasionally happens (about one in twenty patients) and usually clears with simple measures such as antibiotics. More rarely the pleural space can become infected in which case prolonged drainage, anti-biotics and, very occasionally, an operation may be necessary.

3. Fever and pain

If medical talc is used it is quite common to develop a fever and pain after the procedure - this usually settles with paracetamol. Rarely, the talc can cause an exaggerated reaction in the lung and cause breathlessness or, in very rare cases, respiratory failure – a serious complication.

4. Persistent air leak

If there is a persistent air leak from the lung (the tube keeps bubbling

for more than 24hours) or a leak of air under the skin (crackling skin and some swelling) we very occasionally have to insert larger, or additional drains.

Any medical procedure carries a risk to life and very rarely a complication during or after thoracoscopy can be fatal – however this is exceedingly rare (less than 1 person in 1000).

If you have any questions feel free to ask us and we will do our best to answer them and to reassure you that everything possible will be done to complete the procedure safely and effectively.

How long will I stay in hospital?

The length of time you will stay in hospital will vary from patient to patient and depends on how quickly the lung re-expands and when the drain stops bubbling. This is usually within 48 hours and may be less. Occasionally the lung is slow to re-expand or the tube continues to bubble for longer than expected - and your stay may then be a little more prolonged.

If you have any further questions

If you have any questions feel free to ask us and we do our best to answer them and to reassure you that everything possible will be done to complete the procedure safely and effectively.

Notes:

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