

## Patient information

### **Percutaneous Image Guided Lung Biopsy**

#### Interventional Radiology Imaging

This document is designed to provide you with detailed information about this procedure. Please take the time to read through this leaflet carefully to gain a better understanding of what the procedure entails, its benefits, risks, and what to expect during and afterward. It is not meant to replace informed discussion between you and your doctor but can act as a starting point for such discussions. If you have any questions about the procedure, please ask the doctor who has referred you, or the doctor performing the procedure.

#### **What is a Percutaneous Image Guided Lung Biopsy procedure?**

A needle biopsy is a way of taking a small piece of tissue out of your body, using only a tiny cut in the skin, so that a pathologist can examine it under a microscope. A pathologist is an expert in making diagnoses from tissue samples. Because this biopsy is done through the skin, it is called a percutaneous biopsy.

#### **What are the benefits of Percutaneous Image Guided Lung Biopsy procedure?**

This is a less invasive treatment that avoids an operation, to obtain a tissue sample. The tissue sample helps reach a firm diagnosis, which can help direct any further treatment decisions.

#### **What will happen if I decide not to have treatment?**

There are some other tests or treatments that might be possible (please see alternative treatment section). If you choose not to proceed you should discuss this carefully with the doctor that recommended this test.

#### **Who will be doing the Percutaneous Image Guided Lung Biopsy?**

A specially trained team of doctors, nurses and radiographers in the x-ray department. The specially trained doctor is called an Interventional Radiologist. They have skills in using different imaging such as X-ray, Ultrasound and CT scanners to carry out procedures.

#### **Before the procedure**

The Interventional Radiology nursing team will contact you before your procedure with any information you need to know to get ready for it. This may include stopping medications, other tests, or stopping eating or drinking for some time before the procedure. If you are an inpatient on the ward, they will contact the ward nurse.

If you have any allergies, you must let the nurse/doctor know. If you have been unwell after receiving X-ray dye (used for CT scans) please let the team know.

On the day of the procedure the Interventional Radiologist will go through a consent form with you. You can ask any questions you may have then or call the department before your test on 0151 706 2748 Royal Liverpool hospital, or 0151 529 2925 Aintree hospital.

Please contact us if you are unclear on any of these instructions.

### **How is the procedure carried out?**

#### **Will I be given an anaesthetic?**

Yes, the doctor will freeze the skin with some local anaesthetic.

#### **Where will the procedure take place?**

Ultrasound room or X-ray operating theatre.

#### **How is it done?**

You will be required to change into a hospital gown. You may need to remove your jewellery, glasses, contact lenses or false teeth – check with the nurse. You will then be escorted to the theatre, where you will be looked after by the team.

Position – You may be asked to lie on your back, front or side depending on which lung has the target and where in the lung the target is.

The Interventional Radiologist will use the ultrasound machine or the CT scanner to decide on the most suitable point for inserting the biopsy needle. Then your skin will be cleaned, and local anaesthetic will be used to freeze the area. Then, the biopsy needle will be inserted into the abnormal tissue. Once the samples have been collected, the needle will be removed.

The region will be cleaned, and a small dressing will be applied.

#### **How long will it take**

About one hour.

#### **After the procedure**

##### **Recovery**

Nursing staff will check your blood pressure, pulse, and procedure site in the recovery area. The length of time this is done for depends on each patient/procedure. A chest X-ray will be performed around one hour post procedure.

##### **Discharge**

If you are an outpatient, you will normally be able to go home the same day, usually (two-four) hours from the end of the procedure (depends on the Chest x-ray result). You will usually need an escort home from hospital and a responsible adult to stay with you overnight. This can be discussed with nurse when they ring you.

If you are a ward patient, you will be returned to the ward for further observation by the ward staff.

**Your wound** There will only be a tiny wound on the skin which will have a dressing applied.

**Back to work/driving/normal activities** We would usually recommend not to drive for 24 hours post procedure. This can be discussed with nurse when they ring you.

### **What are the risks of Percutaneous Image Guided Lung Biopsy?**

#### **Minor:**

- air leak/pneumothorax (one in four-five people). This is usually small if it does happen, no intervention is required, and you can still go home the same day.
- coughing up blood (one in ten people). This is very rarely significant and settles down within 24 hours, usually much sooner.
- inconclusive or insufficient sample to get a diagnosis. If this happens your case will be re-discussed by a group of specialist doctors, such as x-ray doctors, surgeons, respiratory/lung doctors (multi-disciplinary team) to decide the next step. The benefit of this is that they can use all their knowledge to discuss the best steps for your diagnosis. This may be a repeat biopsy or another scan.

#### **Major:**

- large air leak/pneumothorax (one in 15-20 people). Sometimes the lung needs help in re-inflating, and this is done by inserting a tube/drain into your chest. This is done under local anaesthetic. You will be required to stay in hospital at least overnight to ensure the lung re-inflates.
- Major bleeding requiring intervention.
- Extremely rarely, there is a risk of fatality. This can be discussed with your doctor in advance of the procedure, or prior to the procedure.

#### **Other:**

- Allergic reaction.
- Radiation risk (X-ray or CT guidance)

There is always a slight risk of damage to cells or tissues from being exposed to any radiation, including the low levels of X-ray which may be used for this test. The risk of damage from the X-rays is usually very low compared with the potential benefits.

Please be aware that even a small extra amount of radiation may be harmful to an unborn child. If you think that there is a chance you may be pregnant, please contact the IR department.

If you would like more information about radiation risk we have leaflets available, or feel free to discuss this with our staff who will be happy to answer any questions you may have.

## **Are there any alternative treatments available?**

It is always up to you whether you choose to proceed with a particular treatment. Bronchoscopy can sometimes be used to obtain tissue samples from the lung, instead of a percutaneous lung biopsy. This may not be possible in your case.

You should speak to your doctor about this. They can provide a Patient information leaflet to advise you further.

## **Further Appointments**

**Follow-up:** If any further appointments are needed, you will be contacted by the team that sent you for the procedure.

If you think you need **urgent** medical assistance please contact NHS111 or attend your local A&E Department.

## **Feedback**

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

## **Further information**

**Unexpected problems or concerns: Ring the Interventional Radiology department if related to this procedure (RLUH – 0151 706 2748, AUH – 0151 529 2925).**

**Telephone number: RLUH – 0151 706 2748**

**Text phone number: 18001 0151 706 2748**

**Telephone number AUH – 0151 529 2925).**

**Text phone number: 18001**

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