

Endobronchial Ultrasound (EBUS)

An examination of the lungs

This leaflet provides essential information to prepare you for your forthcoming procedure. You have been advised to have an **endobronchial ultrasound (EBUS)**. EBUS is a procedure used to help diagnose some conditions of the lungs and airways (the tubes that carry air to the lungs) by taking tissue samples from the neighbouring lymph glands. This sheet covers frequently asked questions.

Please read this leaflet and complete the medical questionnaire on pages 4 and 5 before you arrive for your procedure.

What does an endobronchial ultrasound involve?

An EBUS involves using a thin, flexible tube called a bronchoscope, which is about as thick as a pencil. This is passed via the mouth or nose to the back of the throat, into the windpipe and then further on into the airways. It is attached to an ultrasound probe that allows the doctor to see the lungs and lymph glands that sit next to the airways.

The ultrasound probe produces sound waves that are converted into pictures by a computer. The doctor can then use a very fine needle to take the tissue sample from the right place. This technique is called **transbronchial needle aspiration (TBNA)** and is painless. The sample is always sent to the lab for more tests to help reach a diagnosis.

Preparation

You **must not** eat for at least **6 hours** before the test and have only clear fluids up to **2 hours** before the test. You should still take your usual medicines with a small amount of water.

Patient with diabetes, please follow the instructions below:

- **Insulin dependent diabetic patients** should contact the diabetic specialist nurses before the procedure - see the 'useful contacts' at the end of this information sheet.
- **Tablet controlled diabetic patients**, please ring the endoscopy nurse's enquiry line for advice - see the 'useful contacts' at the end of this information sheet.

Instructions for stopping blood-thinning medications before the procedure:

- **Warfarin** - usually stopped 5 full days before the procedure. You will need an INR blood test 1-2 days before the procedure to ensure your INR is below 1.5 - Please ring the anticoagulation nurses for advice, the telephone number is on the last page of this leaflet.

Please let us know if you are on warfarin and the reason for this. In some situations, we may give you an alternative shorter-acting agent to take instead for the lead-up to your procedure.

- **Aspirin** - do not take on the morning of the procedure.
- **Clopidogrel, Dipyridamole, Ticagrelor** - usually stopped 7 full days before the procedure.
- **Rivaroxaban, Apixaban, Dabigatran** - usually stopped 3 full days before the procedure.
- **Dalteparin** (injections), **Enoxaparin** (injections) - usually stopped 1 full day before the procedure.

Please contact your respiratory clinical nurse specialist if you have any questions about stopping any of these medications.

What will you need to bring with you on the day?

Please wear comfortable clothing as you will not need to get changed for the procedure. Please bring the following with you:

- Any inhalers and medication needed, and a list of current medication.
- The completed medical questionnaire.
- Please do not bring any valuables with you, apart from your mobile phone if you wish to.
- If you have an exemption certificate, please bring it with you in case you are prescribed medication.
- You can bring a book or magazine as you could be in the unit for a while.
- Please check with your nurse on arrival for an estimated time for your friend/relative to collect you.
- The waiting areas in the Endoscopy Centre are mixed sex facilities. However, when patients are required to undress, same sex facilities are provided to maintain your privacy and dignity.

Admission to the Endoscopy Unit

On arrival to the department you will be asked to take a seat in the waiting area. If a relative has come with you, they may go home and be contacted when you are ready for discharge, or may wait in the department. The time of your admission may not be the time you will have your procedure, please be prepared to stay for 3-4 hours.

You will be escorted to an admitting room where all relevant details will be recorded and the procedure explained. The nurse will be happy to answer any further questions you might have and ask you to confirm with you that you are willing to proceed. You will be asked to sign the consent form on admission, if you have not already done so. This is to ensure that you understand the procedure and any possible complications.

A cannula (needle) will be put in your hand or arm for medication. You may keep your dentures and hearing aids in. You will not need a general anaesthetic. You will be given some medicine to make you feel relaxed or even sleepy before the test.

Sedative and painkiller

A sedative and painkiller may be worth considering if you are anxious about the procedure, the admission nurse will help you come to a decision. It will be administered through the line that you will already have had inserted in your arm/hand. It may have an amnesic effect (give you short term memory loss) but it will not 'knock you out' as the endoscopist may require you to change position to help the camera round.

If you choose to have this, it is **ESSENTIAL** that you organise for someone to pick you up and stay with you for the rest of the day. **You cannot drive for 24hrs** as insurance may be invalid.

Also, following sedation **you should not:**

- drink alcohol for 24 hours.

- operate machinery for 24 hours.
- return to work for 24 hours.
- sign important documents.

What happens during the procedure?

You will be settled on a couch and a monitoring device will be placed on your finger. The doctor will spray the back of your throat with a local anaesthetic to make it numb; this will make it easier to pass the bronchoscope into your windpipe. You will also be offered a sedative to help relax you during the procedure which will be given by injection into a vein in your hand or arm. It is not a general anaesthetic and so you will remain awake, but you will feel sleepy and **will require someone to drive you home and stay with you overnight.**

The bronchoscope will be passed gently into your airways. A fine needle is then passed down the bronchoscope into the gland/tissue and a sample is taken; this is painless. More than one sample will be needed during the procedure. The procedure will normally take 30-60 minutes.

After the procedure

After the procedure you will be taken to the recovery area and made as comfortable as possible. You may have a drink and something to eat after 60 minutes if you are not too sleepy and feel able to manage.

How long will I be in hospital for?

You should be able to go home later that same day. However, if your lung has collapsed, your doctor may ask you to stay in hospital overnight for observation.

When will I get the results?

An outpatient appointment will be made for one week after the procedure. At this appointment, the doctor will discuss the result of the test with you. If you have any questions about the test, please discuss them directly with your respiratory clinical nurse specialist.

What are the possible risks with the procedure?

The problems that may occur after this procedure are not usually serious:

- You may cough and feel slightly breathless during the test.
- You may have a sore throat and hoarse voice for a few days afterwards.
- It is not unusual to cough up small amounts of blood for 12-24 hours after the test.
- There is a very, very small risk of the lung collapsing. Your doctor will explain this to you in more detail when asking you for your consent for the procedure.

If the collapse is minor, nothing will need to be done but you may have to stay in hospital for 24 hours for monitoring. If the lung has to be re-expanded because you are breathless, a tube will be placed into the space between the lung and the chest wall to allow the air to escape. You will then need to stay in hospital for a few days while the lung heals.

Other possible problems risks with the procedure

- There is a small risk of developing a chest infection, which occurs in fewer than 5 in 100 people. However, it will respond quickly to antibiotics so if you feel unwell following the procedure, you should consult your GP.
- Death from EBUS has been described as occurring in around 1 in 5,000 cases. Almost always, however, the patients who have died from EBUS have been very ill in hospital beforehand.

Medical questionnaire

This section is for you to complete prior to arriving at the Endoscopy Unit. **Please bring this with you on the day of the procedure.**

It is important that you fill it in accurately so that the nursing staff can provide you with the best care possible. If you have any concerns or questions, please call the nurses' enquiry line - see the 'useful contacts' at the end of this information sheet.

| <u>HEART</u> | Yes | No |
|---|-----|----|
| Heart disease | | |
| Valve surgery, angina, heart attack | | |
| When did you last have chest pain..... | | |
| High blood pressure | | |
| Rheumatic Fever | | |
| Stroke | | |
| Circulation (e.g) thrombosis) | | |
| Other | | |
| Did any of above require anticoagulants | | |
| Nursing notes | | |

| <u>LUNG</u> | Yes | No |
|---|-----|----|
| Lung Condition (e.g. emphysema, asthma) | | |
| Coughing up blood | | |
| Other | | |
| Nursing notes | | |

| <u>LIVER/KIDNEY/URINARY TRACT</u> | Yes | No |
|--|-----|----|
| Liver Condition (e.g. jaundice, cirrhosis) | | |
| Kidney (e.g. kidney stones, infection) | | |
| Urinary Tract (e.g. infection, blood in urine) | | |
| Nursing notes | | |

| <u>INFECTIOUS DISEASES</u> | Yes | No |
|---|-----|----|
| TB | | |
| Hepatitis (B or C) | | |
| HIV/AIDS | | |
| MRSA/ Other | | |
| Have you ever been notified that you are at risk of CJD or vCJD for public health service | | |
| Nursing notes | | |

| <u>GASTROINTESTINAL TRACT</u> | Yes | No |
|---|-----|----|
| Stomach (e.g. ulcers, hiatus hernia) | | |
| Bowel (irritable bowel, polyps, cancer) | | |
| Nursing notes | | |

| <u>OTHER CONDITIONS</u> | Yes | No |
|--------------------------------|-----|----|
| Diabetes | | |
| Epilepsy | | |
| Anaemia | | |
| Glaucoma | | |
| Addison's disease | | |
| Nursing notes | | |

| <u>OTHER DETAILS</u> | Yes | No |
|---|-----|----|
| Dentures | | |
| Hearing Aid | | |
| Glasses/contact lenses | | |
| Body piercing | | |
| Metal joints or any bones pinned | | |
| Are you sensitive/allergic to anything? (e.g. antibiotics/latex/foods/adhesive etc) | | |
| Nursing notes | | |

| <u>LIFESTYLE</u> | Yes | No |
|--|-----|----|
| Do you smoke | | |
| Do you take any illegal substances? | | |
| Do you drink alcohol (If yes – how many units/week – 21 male/ 14 female) | | |
| Nursing notes | | |

Have you had any operations? Please give details:

| Name of medicine | Dosage (amount) | Number of times taken per day |
|------------------|-----------------|-------------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

- Endoscopist has been informed of relevant conditions and medication Yes / No
- Transferred to care plan Yes / No

Next of kin name and address:

Telephone details:

Valuables disclaimer

You are advised not to bring valuables into the hospital. We cannot accept responsibility for lost items.

Patient signature Print Date.....

Primary nurse signature Print Date.....

To ensure that your examination is a success, please follow all the instructions carefully:

- **Please read** this information booklet and complete the medical questionnaire on pages 4 and 5 before you arrive for your procedure.
- **Drinks** - You can have clear fluids up to 2 hours before your appointment time. This includes water, squash, black tea or coffee (without milk).
- **Diet** - You can eat a light snack up to 6 hours before your appointment time.
- Please wear loose, comfortable and washable clothing.

Please tick the checklist below to ensure you have read all the information and are ready for your procedure:

I have read this patient information sheet

☐

I have understood the information provided

☐

I have completed the medical questionnaire on pages 4 and 5

☐

I have read the consent form (if given/sent one)

☐

I am aware of when I should stop eating and drinking

☐

I have contacted the diabetes nurse (if required)

☐

I have contacted the anticoagulant clinic (if required)

☐

I have contacted the nurses with any queries

☐

If you are unsure about anything, please contact us.

Your procedure could be cancelled if you have not followed the instructions properly.

Additional information

To view the Lister and New QEII site maps for navigating your way around our hospitals, please visit our Trust website - www.enherts-tr.nhs.uk

Useful contact details

East and North Hertfordshire NHS Trust:

- Website www.enherts-tr.nhs.uk
- Telephone 01438 314333

Endoscopy Unit - Lister and New QEII:

- Lister: Telephone 01438 288603 - Option 1
- New QEII: Telephone 01707 247728

Anticoagulation Clinic

- Lister: Telephone 01438 285335
- New QEII: Telephone 01707 224032

Nurses' Enquiry Line

- Telephone 01438 288603 (please ring between 8am - 10am and 4pm - 6pm) - Option 2

Diabetic Specialist Nurses

- Telephone 01438 284560
- Telephone 01438 284645
- Telephone 01438 284615

This is not an emergency service. Messages left on the answerphone may not be answered for 24-48hrs.



You can request this information in a different format or another language; please speak to your doctor or nurse.

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