

Fibreoptic bronchoscopy and Endobronchial ultrasound (EBUS)

affix patient label

If you are having a Fibreoptic Bronchoscopy please read the whole document apart from the section on EBUS.

If you are having an EBUS please read the whole of this document.

What is a fibreoptic bronchoscopy?

A bronchoscopy is a test which allows a doctor to look directly into the windpipe (trachea) and airways (bronchi) in your lungs. The test is carried out with a camera (bronchoscope), which is long and flexible with a bright light and video chip (fibreoptic) at the end.

Why do I need this procedure?

The purpose of the test is to examine your airways, and possibly take samples of lung tissue (biopsy) or fluid in order to help find the cause of your symptoms.

Are there any alternatives?

Other tests such as X-rays and scans may give information about your lungs, but only a bronchoscope can allow the doctor to see inside the airways and take samples. Alternatives to this include an operation under general anaesthetic (performed at Derriford Hospital, Plymouth) to take samples from your lung, which is sometimes necessary if bronchoscopy fails to provide an answer.

Another alternative is for a needle to be inserted through the chest wall under local anaesthetic if the area to be sampled lies close to the chest wall.

How do I prepare for it?

If your bronchoscopy is on a Tuesday, you may have a light breakfast before 7.00am and then nothing further to eat. Clear fluids may be continued until 11am and you may have a glass of clear fluid at that time. If your bronchoscopy is on a Thursday, do not eat solids from midnight the night before, but continue clear fluids until 6.30am – you may have a glass of clear fluid at that time.

If you wear glasses for reading, please bring them on the day of your bronchoscopy when we will ask you to sign a copy of this consent form. Please remove any nail varnish on your finger nails or false nails.

Can I still take my usual medications?

All medication should be taken as normal with a little water.

If you have diabetes, we usually advise you not to take your diabetic medications on the morning of the procedure as you will be fasting.

If you are on blood thinners or antiplatelet drugs please let your doctor know. In most cases your medication should be stopped in advance of 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 let us know if you are on warfarin and why, as in some situations, we may give you an alternative shorter-acting agent to take instead, in the lead-up to your procedure

- **Aspirin** – do not take on the morning of the procedure
- **Clopidogrel** – usually stopped 7 full days before the procedure
- **Dipyridamole** – usually stopped 7 full days before the procedure
- **Ticagrelor** – usually stopped 7 full days before the procedure
- **Rivaroxaban** – usually stopped 2 full days before the procedure
- **Apixaban** – usually stopped 2 full days before the procedure
- **Dabigatran** – usually stopped 2 full days before the procedure
- **Dalteparin (injections)** – usually stopped 1 full day before the procedure
- **Enoxaparin (injections)** – usually stopped 1 full day before the procedure

What does it involve?

A nurse will stay with you throughout the bronchoscopy. During the examination you will be made comfortable on a couch in a sitting or lying position.

The doctor may give you an injection into your arm to make you feel sleepy and relaxed. A local anaesthetic will be sprayed into your mouth to the back of your throat. The local anaesthetic spray has a very bitter taste which disappears quickly as the anaesthetic takes effect. Local anaesthetic jelly is inserted into your nostril(s) – this makes it more pleasant to have the tube in your nose. Before the bronchoscope is passed through your larynx (voice box), more local anaesthetic will be sprayed. This may make you cough a little. As the local anaesthetic takes effect, your throat will relax.

Extra oxygen may be given to you via a soft plastic tube into your nostril. Your oxygen levels will be monitored continuously throughout the procedure.

Samples may be taken by squirting saline solution through the bronchoscope into the bronchial tube being examined and sucking back the liquid. Tissue samples (biopsies) are taken with tiny forceps passed through the scope and are sent for examination under the microscope. The bronchoscopy usually takes fifteen to twenty minutes.

The EBUS procedure varies a little from the above. Please ensure you also read the additional EBUS information if you are having this procedure.

What happens afterwards?

Following the bronchoscopy you will be taken to the recovery area, a few yards away from the examination room. For two hours the nurses will check your pulse, blood pressure, oxygen levels and breathing at intervals. During this time you will not be able to eat or drink due to the numbness in your throat. You will usually be allowed home after two hours. You must not drive yourself, and should not operate or drive machinery for 24 hours.

We do not routinely discuss the results of the examination with you before you go home. This is because the sedative injection often makes it hard to remember things for a few hours. Also it may take some days before the lab results are back.

Endobronchial Ultrasound (EBUS)

For an EBUS, you will be sedated in the same way as described above for a fibreoptic bronchoscopy. However, the local anaesthetic may be sprayed directly onto your voice box via a tiny butterfly needle inserted just below your Adam's Apple. The doctor doing the procedure will advise you on this. It may make you cough.

EBUS involves using a thin, flexible tube called a bronchoscope, which is about as thick as a pencil. This is passed via the mouth to the back of your 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 which 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 may be analysed immediately, but it is always sent to the lab for more tests to help reach a diagnosis.

Are there any risks or complications?

Fibreoptic bronchoscopy and EBUS are very safe, but there are sometimes side effects and rarely complications, which you need to be aware of to help you decide whether or not to agree to this procedure.

Side effects

During this examination, coughing is common, though local anaesthetic is used to reduce this as much as possible. Following the procedure, it is likely that you will have a sore throat for a day or two or some soreness of the nose. You might also have a hoarse voice for a short time.

Following bronchoscopy it is quite common to cough up small amounts of blood for a few hours, especially if biopsies have been taken. You may cough up small amounts of blood for 12 to 24 hours after the test. However, if you are coughing large amounts of blood (ie more than an egg cupful) or the bleeding has not stopped after this time, you should contact one of the chest doctors on Wellington Ward (01872 252100). Outside of working hours (9am – 5pm), go to your local Emergency department. The risk of serious bleeding is around 1 in 400 people.

Nose bleeds may also occur following bronchoscopy.

Complications

Major complications are uncommon, affecting 1-5 patients per 1000 bronchoscopies, but can include:

- major bleeding from the biopsied lung (see above)
- collapse of the lung (pneumothorax). In a small proportion of these patients, we might need to insert a chest drain (tube) to remove the unwanted air from your chest (please seek medical advice if you develop new breathing difficulties – see above)
- infection in the lung
- adverse reaction to local anaesthetic or sedative
- breathing difficulties.

Very serious complications such as cardiac arrest and death are extremely uncommon (one per 5,000 bronchoscopies), but the risk is greater if there is already serious lung or heart disease.

If you would like this leaflet in large print, Braille, audio version or in another language,
please contact the General Office on 01872 252690

CONSENT FORM 1
PROCEDURE SPECIFIC PATIENT AGREEMENT

NHS number:

Name of patient:

Address:

Date of birth:

CR number:

AFFIX PATIENT LABEL

Fibreoptic Bronchoscopy and Endobronchial Ultrasound (EBUS)

STATEMENT OF HEALTH PROFESSIONAL (to be filled in by health professional with appropriate knowledge of proposed procedure, as specified in consent policy)

I have explained the procedure to the patient. In particular, I have explained the intended benefits and summarised the risks, as below:

- *To help us diagnose your symptoms*

Significant, unavoidable or frequently occurring risks:

- *For a short time you may have a sore throat, sore nose, or a hoarse voice. Nose bleeds and coughing up blood is also possible, especially if biopsies have been taken.*

Uncommon but more serious risks:

- *Major bleeding from biopsied lung, collapse of the lung, infection in the lung, bad reaction to the anaesthetic, breathing difficulties*

Rare but serious risks:

- *Cardiac arrest and possible death (one per 5,000 bronchoscopies)*

Any extra procedures which may become necessary during the procedure:

- *Blood transfusion (required very infrequently)*
- *Other procedure (please specify):*

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

I have given and discussed the Trust's approved patient information leaflet for this procedure: Fibreoptic bronchoscopy and Endobronchial Ultrasound CHA3234 which forms part of this document.

I am satisfied that this patient has the capacity to consent to the procedure.

This procedure will involve: General and/or regional anaesthesia Local anaesthesia Sedation

Health Professional signature: Date:

Name (PRINT): Job title:

STATEMENT OF INTERPRETER (where appropriate)

I have interpreted the information above to the patient to the best of my ability and in a way in which I believe he/she can understand.

Interpreter signature: Name (PRINT): Date:

affix patient label

STATEMENT OF PATIENT

Please read this form carefully. If your treatment has been planned in advance, you should already have a copy of the patient information leaflet which describes the benefits and risks of the proposed treatment. If not, you will be given a copy now. If you have any further questions, do ask - we are here to help you. You have the right to change your mind at any time, including after you have signed this form.

I agree to the procedure or course of treatment described on this form.

I understand that you cannot give me a guarantee that a particular person will perform the procedure. The person will, however, have appropriate experience.

I understand that I will have the opportunity to discuss the details of anaesthesia with an anaesthetist before the procedure, unless the urgency of my situation prevents this. (This only applies to patients having general or regional anaesthesia).

I understand that any procedure in addition to those described on this form will only be carried out if it is necessary to save my life or to prevent serious harm to my health.

I understand that tissue samples will only be taken in relation to the procedure explained to me. No samples will be taken for quality control, clinical education or research purposes.

I have been told about additional procedures which may become necessary during my treatment. I have listed below any procedures **which I do not wish to be carried out** without further discussion.

I have received a copy of the Consent Form and Patient Information leaflet: Fibreoptic bronchoscopy and Endobronchial Ultrasound (EBUS) CHA3234 which forms part of this document.

Patient signature: _____ Name (PRINT): _____ Date: _____

A **witness** should sign below if this patient is unable to sign but has indicated his or her consent. Young people / children may also like a parent to sign here (see guidance notes).

Witness signature: _____ Name (PRINT): _____ Date: _____

CONFIRMATION OF CONSENT (to be completed by health professional when the patient is admitted for the procedure, if the patient has signed the form in advance).

On behalf of the team treating the patient, I have confirmed with the patient that they have no further questions and wish the procedure to go ahead.

Health Professional signature: _____ Date: _____

Name (PRINT): _____ Job title: _____

Important notes (tick if applicable):

See advance decision to refuse treatment Patient has withdrawn consent (ask patient to sign/date here)

Patient signature: _____ Name (PRINT): _____ Date: _____

CONSENT FORM 1
PROCEDURE SPECIFIC PATIENT AGREEMENT

Fibreoptic Bronchoscopy and Endobronchial Ultrasound (EBUS)

NHS number:

Name of patient:

Address:

Date of birth:

CR number:

AFFIX PATIENT LABEL

STATEMENT OF HEALTH PROFESSIONAL (to be filled in by health professional with appropriate knowledge of proposed procedure, as specified in consent policy)

I have explained the procedure to the patient. In particular, I have explained the intended benefits and summarised the risks, as below:

- *To help us diagnose your symptoms*

Significant, unavoidable or frequently occurring risks:

- *For a short time you may have a sore throat, sore nose, or a hoarse voice. Nose bleeds and coughing up blood is also possible, especially if biopsies have been taken.*

Uncommon but more serious risks:

- *Major bleeding from biopsied lung, collapse of the lung, infection in the lung, bad reaction to the anaesthetic, breathing difficulties*

Rare but serious risks:

- *Cardiac arrest and possible death (one per 5,000 bronchoscopies)*

Any extra procedures which may become necessary during the procedure:

- *Blood transfusion (required very infrequently)*
- *Other procedure (please specify):*

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

I have given and discussed the Trust's approved patient information leaflet for this procedure: Fibreoptic bronchoscopy and Endobronchial Ultrasound CHA3234 which forms part of this document.

I am satisfied that this patient has the capacity to consent to the procedure.

This procedure will involve: General and/or regional anaesthesia Local anaesthesia Sedation

Health Professional signature: Date:

Name (PRINT): Job title:

STATEMENT OF INTERPRETER (where appropriate)

I have interpreted the information above to the patient to the best of my ability and in a way in which I believe he/she can understand.

Interpreter signature: Name (PRINT): Date:

affix patient label

STATEMENT OF PATIENT

Please read this form carefully. If your treatment has been planned in advance, you should already have a copy of the patient information leaflet which describes the benefits and risks of the proposed treatment. If not, you will be given a copy now. If you have any further questions, do ask - we are here to help you. You have the right to change your mind at any time, including after you have signed this form.

I agree to the procedure or course of treatment described on this form.

I understand that you cannot give me a guarantee that a particular person will perform the procedure. The person will, however, have appropriate experience.

I understand that I will have the opportunity to discuss the details of anaesthesia with an anaesthetist before the procedure, unless the urgency of my situation prevents this. (This only applies to patients having general or regional anaesthesia).

I understand that any procedure in addition to those described on this form will only be carried out if it is necessary to save my life or to prevent serious harm to my health.

I understand that tissue samples will only be taken in relation to the procedure explained to me. No samples will be taken for quality control, clinical education or research purposes.

I have been told about additional procedures which may become necessary during my treatment. I have listed below any procedures **which I do not wish to be carried out** without further discussion.

I have received a copy of the Consent Form and Patient Information leaflet: Fibreoptic bronchoscopy and Endobronchial Ultrasound (EBUS) CHA3234 which forms part of this document.

Patient signature: Name (PRINT): Date:

A **witness** should sign below if this patient is unable to sign but has indicated his or her consent. Young people / children may also like a parent to sign here (see guidance notes).

Witness signature: Name (PRINT): Date:

CONFIRMATION OF CONSENT (to be completed by health professional when the patient is admitted for the procedure, if the patient has signed the form in advance).

On behalf of the team treating the patient, I have confirmed with the patient that they have no further questions and wish the procedure to go ahead.

Health Professional signature: Date:

Name (PRINT): Job title:

Important notes (tick if applicable):

See advance decision to refuse treatment Patient has withdrawn consent (ask patient to sign/date here)

Patient signature: Name (PRINT): Date: