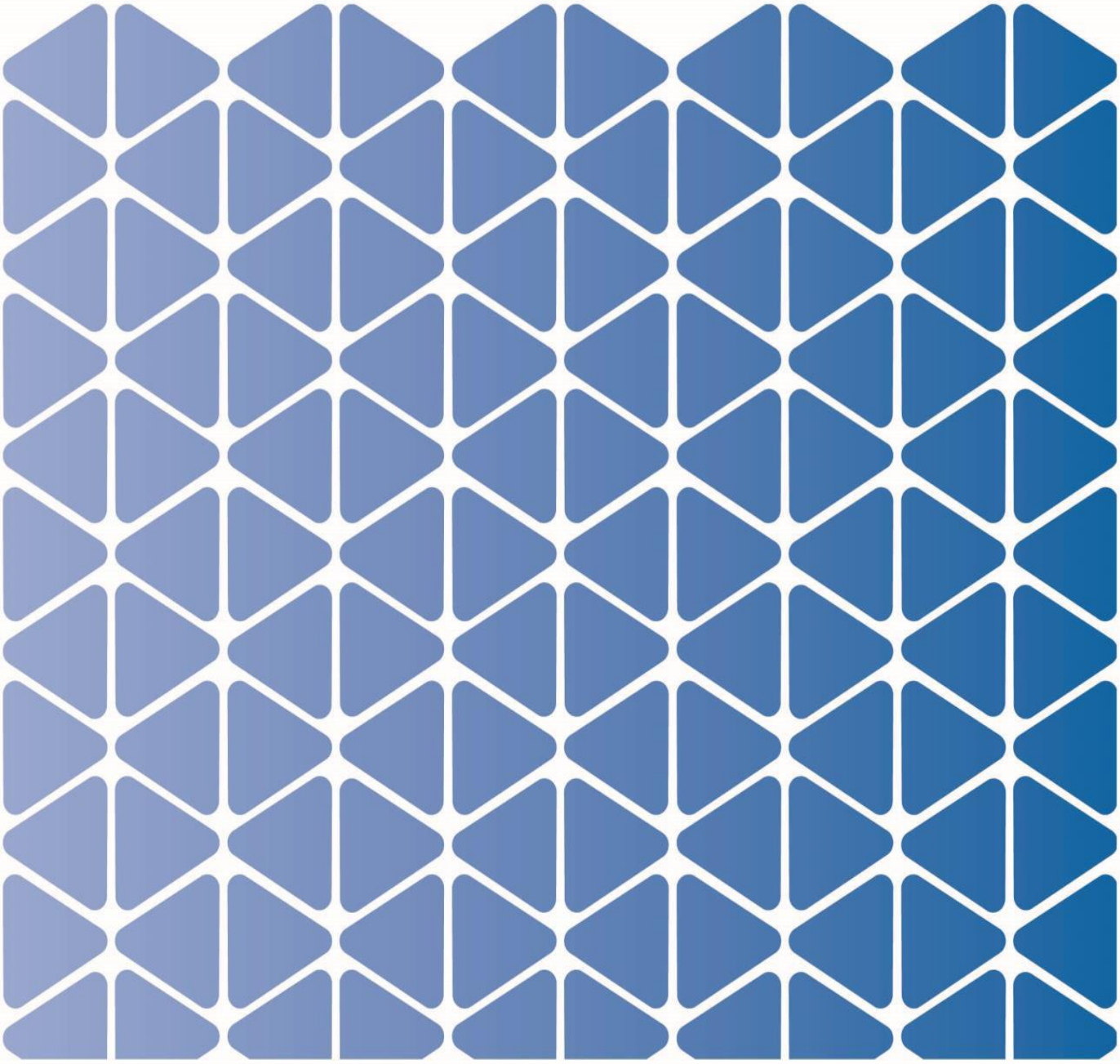
NHS
Worcestershire Acute Hospitals NHS Trust

INVESTIGATIVE PROCEDURE

PATIENT INFORMATION

BRONCHOSCOPY



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Name of procedure: Bronchoscopy

It has been recommended for you to have a bronchoscopy to help find the cause of your symptoms. Bronchoscopy is a test which allows your doctor to look directly into your windpipe (trachea) and breathing tubes (bronchi) in your lungs.

Bronchoscopy is usually performed as a day case, with no overnight stay. The test is carried out with a bronchoscope, which is a long flexible tube no wider than a thin pencil with a tiny camera and bright light at the end. During the test your doctor may collect different samples which will be examined further in the hospital laboratory.

This leaflet explains some of the benefits, risks and alternatives to the procedure. We want you to have an informed choice so you can make the right decision. Please ask your medical team about anything you do not fully understand or want to be explained in more detail.

We recommend that you read this leaflet carefully. You and your doctor (or other appropriate health professional) will also need to record that you agree to have the procedure by signing a consent form, which your health professional will give you.

Benefits of the procedure

The aim of the procedure is to look at your breathing tubes, or to take samples of lung tissue or lung fluid in order to find the cause for your symptoms or chest X-ray abnormality and decide if further treatment is necessary.

Your anaesthetic

The procedure is usually carried out using a local anaesthetic - this will numb the nasal passages, throat, voice box and airways. There are a number of different ways in which this can be given, these include:

- gel or paste into your nose;
- a spray on the back of your throat spray;
- an injection at the front of your neck.

  Your doctor will explain which form of anaesthetic is most suitable for you.

You will not need a general anaesthetic, but we will usually give you a sedative drug by injection to help make sure that you are relaxed and comfortable during the procedure.

What should I do before the test?

- If you are receiving sedation, you will need to arrange **for a responsible adult to collect you from the Endoscopy Unit. We recommend that you have someone with you at home for 24 hours, including overnight.**
- **You must not go home by public transport – a taxi is fine as long as someone is with you.**
- **You must let us know if you are not able to arrange this so that alternative arrangements can be made.**
- **You must not eat for 4 hours before the test.** You may drink plain water up until 2 hours before the test. Other drinks (e.g. tea with milk) should not be drunk for 4 hours before the test.
- Take your usual medication(s) with a small sip of water up to 2 hours before the test, and bring any essential evening medication with you.
- If you are diabetic, seek advice from your doctor about your medication.
- It is advisable that you do not smoke on the day of the procedure as this can make your coughing worse.

On the day of the procedure

You will usually be asked to come to the ward on the morning of your test. Occasionally you may be admitted to the ward the day before your test. You will be welcomed and assessed by a nurse who will go through your patient questionnaire with you. This is sent to you in the post ahead of your appointment. They will need to know if you:

- have experienced any allergies or bad reactions to drugs or tests in the past;
- suffer from any other medical conditions, for example, diabetes or asthma;
- You have had a heart attack or pulmonary embolus in the last 6 weeks
- are taking any medications; and
- have had any previous endoscopies.

The nurse will also discuss the test with you and take your pulse, blood pressure and oxygen levels.

If you would like the test done <u>without</u> sedation you must inform the nurse who admits you. The doctor will then be able to discuss your request.

Your normal medicines

Continue to take your normal medicines up to and including the day of your investigation. If we do not want you to take your normal medication, your consultant will explain what you should do.

If you are **taking blood thinning medication** (anticoagulant/antiplatelet drugs for example, warfarin, aspirin, dipyridamole, clopidogrel, persantin, dabigatran, rivaroxaban, apixiban) please let your consultant or specialist nurse know because you may need to stop taking these a few days before your test. Your consultant will confirm the duration with you in clinic.

If you are diabetic**,** you should tell us on arrival and follow the appropriate instructions below:

Treated with a special diet

- You do not need to follow any specific instructions other than the above.

Treated with tablets

- ***If you have a morning appointment***
  Do not take your morning dose before the procedure. Take the next dose when it is due following the procedure.
- ***If you have an afternoon appointment***
  Take your usual morning dose.

Treated with insulin

- ***If you have a morning appointment***
  You should bring your insulin with you and inject half the morning dose before the procedure and eat following the procedure. You may prefer to bring your usual breakfast with you. We will take capillary blood glucose (finger prick) before and after the procedure.
- ***If you have an afternoon appointment***
  You should take half your morning dose plus your breakfast. Following the procedure, take your normal evening dose plus your evening meal. We will take capillary blood glucose before and after the procedure.

Please bring with you a list of any medications you are taking and any medication you may need to take following your test.

We will need to know if you don’t feel well and have a cough, a cold or any other illness when you are due to come into hospital for your investigation. Depending on your illness and how urgent your investigation is, your procedure may need to be delayed.

What happens during the procedure?

In the bronchoscopy room you will be made to feel comfortable on a couch. A nurse will stay with you throughout the examination. You will be given an identity band to wear on your wrist, and advised to remove any dentures. A small needle will be inserted into your hand or arm. This is to ensure you have the medication you need to relax you for the procedure. The sedation will make you feel relaxed, calm and sleepy but not “knocked out”, often patients may not remember anything about the test. You may be asked to remove any glasses, dentures or restrictive jewellery at this point. The nurse will attach a small device to your finger or thumb in order to monitor your pulse rate and general condition during the examination.

Anaesthetic to numb your nose/throat will then be given – there may be a taste similar to bitter bananas. You may notice a different sensation to your breathing and swallowing, which is normal. This is because the throat becomes temporarily “frozen” (very much like the tooth at the dentist when an anaesthetic is injected) but you will be able to breathe and swallow normally (it may just feel a little different).

Once your nose/throat is numb, your doctor will gently pass the bronchoscope through your nose (or sometimes through your mouth) into your breathing passages. Your doctor will be able to inspect these passages. This can cause a tickling sensation, and you may cough a little. Do not worry if this happens. More local anaesthetic may be put into your airways to prevent further coughing.

Samples may be taken during the bronchoscopy to provide further information. These may include:

- Washings - fluid is run into the lungs and sucked back into a collection pot.
- Brushings - a tiny brush passed into the airways to collect samples of tissue.
- Biopsies - the painless removal of a small piece of tissue using tiny forceps passed through the bronchoscope.
- Transbronchial biopsies - a sample of tissue taken from near the edge of the lung, often with the help of x-ray imaging in a darkened room.

You may be given oxygen via small tubes placed just inside your nostrils during and for a short time after the procedure, your oxygen levels will be monitored at all times.

The test generally takes up to 30 minutes depending on how many specimens (if any) are required. The doctor will discuss the findings of this test before we take you back to the recovery area. If you have been sedated your test will be discussed after a period of recovery.

What will happen after the test?

- After the test you will be asked to rest for an hour or two while any drowsiness and numbness wears off. A nurse will be present in the recovery room throughout this period.
- You may continue to receive oxygen for a short while.
- As your throat has been anaesthetised you may feel that you cannot swallow properly. This feeling will wear off within 60-90 minutes, after which time you will be allowed a drink. You may find your throat feels sore for a day or so.
- Please arrange for someone to accompany you home. When the person taking you home arrives, you will be discharged. Make sure you know if and when you need to come back to the clinic.

After care advice

Once you get home, it is important to rest quietly for the rest of the day. This is very important if you have been sedated. Sedation lasts longer than you think.

For 24 hours after the procedure, you should not:

- be left on your own;
- drive a car;
- sign any legally binding documents;
- take sleeping tablets;
- drink alcohol;
- work at heights – including ladders;
- use machinery; or
- be responsible for small children.

The effects of the test and injection should have worn off after 24 hours, when most patients are able to start normal activities again.

Possible side effects

- You may have a slight nosebleed, or your phlegm may be streaked with blood. This is normal and should settle down within 24 hours.
- You may notice a hoarse voice or mild sore throat for a time after the test. This will settle down.
- Some patients feel feverish a few hours after bronchoscopy. This is not dangerous and does not usually indicate infection. The fever can be treated with Paracetamol.
- Although very rare, should you cough up large amounts of blood (more than a tablespoon), experience chest pain or increased shortness of breath you

should report to the accident and emergency department or call 999.

Are there any risks or complications involved?

This is a safe procedure, but like all medical tests or operations there are some risks involved. **Minor complications** can occur in 1 in 500 bronchoscopies and can include:

- Reduced depth of breathing due to sedation;
- Spasm of the vocal cords (the voice box) due to the local anaesthetic;
- Feeling faint or nauseated;
- Wheezing and breathlessness;
- Air leakage outside the lung (pneumothorax) which can be left to settle or sometimes requires another procedure to drain it away (a chest tube).

Major complications can occur in up to 1 in 800 bronchoscopies and can include:

- Stopping breathing;
- Unusual heart rhythms (arrhythmias)
- Chest infection (pneumonia)
- Fluid on the lung (oedema)
- Significant bleeding.

Most people will not experience any serious complications from their procedure.

There is a risk that you may die. The risk of death is very low about 1 in 5000 tests. The risks increase for the elderly, people who are overweight and people who already have heart, chest or other medical conditions such as diabetes or kidney failure. Under such circumstances your doctor would not be considering undertaking the test unless the benefits of the test outweighed the risks.

You will be cared for by a skilled team of doctors, nurses and other healthcare workers who are involved in this type of procedure every day. If problems arise, we will be able to assess them and deal with them appropriately.

Results

We will normally send any samples (if taken) to a special laboratory in the hospital for tests. Results of biopsies and other tests can take several days or even longer. Some results, however, can take a number of weeks before the final results are known. These will be discussed with you at the clinic (if you are an outpatient) or later on the ward (if you are an inpatient).

Occasionally, we may not be able to obtain any samples, or the samples may not provide us with the information we need and in such circumstances, your Consultant will discuss further tests and management with you.

Other procedures that may be performed

Other tests such as x-rays may give some information about your lungs but only a bronchoscope can allow your doctor to see inside your breathing passages and to take samples.

Sometimes the procedure can be done by a surgeon under general anaesthetic (this is called rigid bronchoscopy). In some cases, a lung biopsy (a small sample of lung tissue) can be taken from outside the chest under local anaesthetic.

General information

We will ask you to remove your body piercing and jewellery before your test. Please do not bring any valuables or money with you as Worcestershire Acute Hospitals NHS Trust cannot accept responsibility for these items. Please do not wear any nail varnish, lipstick or false nails. Due to the nature of this test, you may find wearing loose-fitting casual clothes more comfortable to travel home in.

Audit and research

There is a national requirement to collect information about certain lung diseases. Such information is kept in a strictly confidential manner.

The computerized results of bronchoscopy tests may be used for audit and research, but personal details such as people's names are not used in such research. Please let your doctor know if you do not wish your results to be used in such research.

Contact details

If you have any questions, for example about medication, before your investigation or procedure please contact the following:

	Worcestershire Royal Hospital	Alexandra Hospital
Endoscopy Unit Nursing Staff	**01905 733085**	**01527 512013**
Lung Nurse Specialist	**01905 733053**	**01527 503030 x44991**

Other information

The following internet websites contain information that you may find useful.

- www.worcsacute.nhs.uk
  Information about Worcestershire Acute Hospitals NHS Trust
- www.patient.co.uk
  Information fact sheets on health and disease
- www.nhsdirect.nhs.uk
  On-line Health Encyclopaedia and Best Treatments Website

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PALS@nhs.net

Opening times:

The PALS telephone lines are open Monday to Friday from 8.30am to 4.00pm. Please be aware that you may need to leave a voicemail message, but we aim to return your call within one working day.

If you are unable to understand this leaflet, please communicate with a member of staff.