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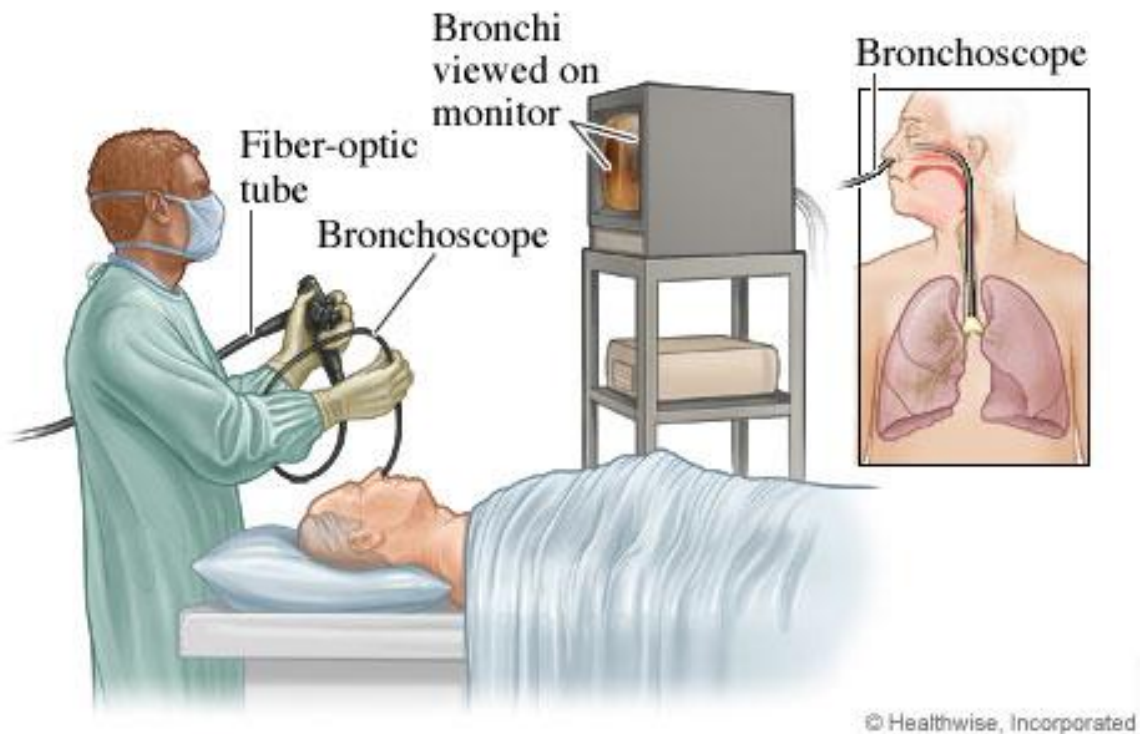
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PATIENT INFORMATION SHEET
FIBREOPTIC BRONCHOSCOPY

Your Respiratory Specialist has recommended that you undergo a Fibreoptic Bronchoscopy. This is a visual exam of the breathing passages of the lungs (called “airways”). This test is done when it is important for your doctor to see inside the airways of your lungs, or to get samples of mucus or tissue from the lungs.

Bronchoscopy involves placing a thin tube-like instrument called a bronchoscope through the nose or mouth and down into the airways of the lungs. The tube has a mini-camera at its tip, and is able to carry pictures back to a video screen or camera.



1) Why do I need a Bronchoscopy?

This procedure allows your doctor to help get better samples from a particular area of the lung, which can be examined in a lab to identify causes of your symptoms. The bronchoscopy also allows the doctor to see any potential airway blockage, sample and/or remove the substance; which may help to open up the airway. When a patient has coughed up blood, bronchoscopy can help the doctor find the cause of the bleeding.

Your doctor will discuss with you the specific reasoning for your bronchoscopy procedure.

2) Are there any alternatives?

Other tests and procedures, such as X-rays, CT scans and suctioning techniques can give the doctor some information about the lungs, but bronchoscopy provides your doctor with more information and allows the doctor to look at the inside of your lungs and obtain very specific samples and remove mucus if necessary.

3) What do I need to do to prepare for the bronchoscopy?

If you are having a bronchoscopy as an outpatient or as a non-critically ill inpatient, you will receive instructions about when to not eat and drink, taking your regular medicines, smoking and removing any dentures before the procedure.

- Please let the doctor / nurse know if you are taking any medication which thins the blood, such as Heparin, Aspirin, Warfarin, Plavix/Iscover, Xarelto/Pradaxa/Eliquis.
- Please also tell us if you have any allergies or if you may be pregnant.
- Please let us know if you are diabetic.
- Please do not wear jewellery, nail varnish or make-up.
- Please bring in your spectacles if you wear them.
- Please let us know before you come for your procedure if you will need an interpreter.

On the day of the procedure, please come to the reception desk at the Preadmission Clinic on Level 3, Sutherland Hospital at the time you have been given.

A nurse will greet you and make you comfortable and take your blood pressure, temperature and pulse, and ask you questions about your medical history. The nurse or doctor will insert a small plastic tube into your hand or arm so that we can give you sedation and any other medication during the procedure.

4) How is sedation achieved?

Procedural sedation involves the use of short-acting analgesic and sedative medications. This is not a general anaesthetic. Serious complications rarely occur and no deaths have been reported in multiple studies. You will receive information from the anaesthetist prior to the procedure, which further explain these risks.

5) What happens during a bronchoscopy?

You will be lying down with the head of the bed tilted up slightly. Once adequate sedation is reached, the bronchoscope is placed through the nose or mouth, then advanced slowly down the back of the throat, through the vocal cords and into the airways. During this time your vocal cords and air passages will feel numb. The doctor will be able to see the inside of the lungs through the mini-camera at the bronchoscope's tip. You may feel like you cannot "catch your breath," but there is enough room to breathe and get enough oxygen.

The procedure will take anywhere between 15 – 60 minutes, depending on how long it takes for the medicine to take effect, and the reason for the procedure.

6) How are samples taken?

Saline (salty water) can be flushed through the bronchoscope, and sucked out again, which removes a small amount of cells for examination. A brush can be passed down the bronchoscope, and cells brushed from the lining of the air tubes in the lungs. These cells can then be looked at in the laboratory.

A pair of forceps (tweezers) on the end of a wire can be passed down into the lung through the bronchoscope. These can be used to take very small pieces of tissue for analysis in the laboratory. A small needle can be passed down the bronchoscope to take a sample from any enlarged lymph glands. A sample of the cells from the glands can help to diagnose inflammatory diseases and tumours

7) What are the risks?

Bronchoscopy is a safe procedure. Serious risks, such as air leak or serious bleeding are uncommon and less than 5%. Other more common minor risks include:

(a) Minor complications

Discomfort and coughing – While the bronchoscope is passed through your nose or throat into the lungs, it may cause some discomfort. It may also tickle your airways, causing a cough. You will be given medicine that is sprayed into the nose or throat (local anaesthetics), as well as medicine (sedatives) by vein to lessen these. A small number of patients are troubled by a sore throat after the procedure but this usually settles within 48 hours.

Infection – Many patients suffer from a fever and some sweating, between 6-12 hours after the bronchoscopy. This goes away by itself without any treatment and is not a sign of an infection. Infection risk is approx. 2-3% and usually treated with a course of oral antibiotics. Treatment requiring hospitalisation for outpatients is extremely rare.

Reduced oxygen – Your oxygen level will be continuously monitored during the procedure through a sensor clip placed on your finger. The level of oxygen in the blood may fall during the procedure for several reasons. The bronchoscope may block the flow of air into the airway, or small amounts of liquid used during the test may be left behind. This drop is usually mild, and the level usually returns to normal without treatment. If the oxygen level remains the doctor will give extra oxygen or stop the test to allow for recovery.

Nose bleed – this usually results from direct nasal trauma especially if on anticoagulants including Aspirin. The risk is 1-2% and is usually minor and self-terminating.

(b) Moderate complications

Lung leak or collapse – The airway may be injured by the bronchoscope, particularly if the lung is already very inflamed or diseased. If the lung is punctured, it may cause an air leak (pneumothorax) around the lungs, which can cause the lung to collapse. This complication is not common, unless a procedure called transbronchial biopsy is performed, in which case it occurs in about 1 in 10 patients. When a puncture does occur, 9 times out of 10 it heals by itself without further treatment. If there is a large or ongoing air leak, it may need to be drained with a chest tube.

Bleeding – Bleeding can occur after the doctor performs a biopsy or if the bronchoscope injures a tumor in the airways. Bleeding is more likely if the airway is already inflamed or damaged by disease. Usually bleeding is minor and stops without treatment. Sometimes a medication can be given through the bronchoscope to stop bleeding.

(c) **Serious complications**

Death – described as occurring in around 1 in 10,000 cases. In most cases where patients have died from bronchoscopy they have been very ill in hospital beforehand, and have not been having the procedure as an outpatient.

8) What happens after the procedure?

Patients vary in their wake-up times. If you are an outpatient or a non-critically ill inpatient, you will need to stay in the recovery area for an hour or more before the sedative has worn off. You will also need to wait 30–60 minutes, or until the numbness wears off, before drinking any liquids. At this time a 'sip test' is performed to ensure there is no risk of choking or aspiration. If you are an outpatient, it is recommended that you bring someone along to drive you home.

It is unlikely that you will experience any problems after the test other than a mild sore throat, hoarseness, cough, or muscle aches. If you feel chest pain or increased shortness of breath or cough up more than a few tablespoons of blood once you leave the hospital, contact your doctor immediately.

The doctor can tell you how your airways look right away. Lab results take more time, usually 1–4 days or more depending on the specific test that is being done. You will be given an appointment with your specialist to discuss the results

You will be given on written instruction when you leave the Hospital. Please follow these carefully.

SUMMARY GUIDE

You are scheduled to have a bronchoscopy, a procedure that your doctor performs to examine your airways or take samples from your lungs.

- Do not eat or drink before the procedure according to instruction given.
- Review your medication schedule and smoking activity with your doctor.
- After the procedure, do not drink for ½ to 1 hour or until the numbness completely wears off.
- Do not drive home by yourself after the procedure; arrange for a family member or friend to take you home.
- Contact your doctor immediately if you have shortness of breath or chest pain, or you cough up more than a few tablespoons of blood at home.

If you have any questions or concerns, please contact: Respiratory Consultant or Registrar On-call via the Sutherland Hospital Switchboard on Telephone: 9540 7111.

9) Patient Instruction after Fibreoptic Bronchoscopy

The responsible adult escorting you home should also be aware of the following instructions:

- The effect of the sedation can take some time to wear off and your memory loss may persist longer than the sedation. Your escort needs to know that you may not carry out instruction even though you appear to acknowledge them.
- Your throat might be a little sore and this will wear off. You may also cough, and even cough up a small amount of blood and again this usually does not require treatment.
- You can resume eating a normal diet after the 'Sip Test' unless the doctor today advises otherwise.

SEDATION WILL AFFECT YOUR JUDGMENT FOR ABOUT 24 HOURS. DURING THIS TIME FOR YOUR OWN SAFETY AND IN SOME CASES LEGALLY:

- DO NOT drive any type of car, bike or other vehicle and take extra care as a pedestrian
- DO NOT operate machinery
- DO NOT drink alcohol
- DO NOT use cooking appliances or handle dangerous items such as boiling water
- DO NOT make critical decisions or sign a legal document
- DO NOT do activities that require coordination or balance
- Ensure that you have a responsible adult to care for you until tomorrow
- Rest at home for the remainder of the day

Your doctor may prescribe you medication for pain or other indications:

- Take medication prescribed

SEEK MEDICAL ADVICE FROM YOUR GP or HOSPITAL IF YOU NOTICE ANY OF THE FOLLOWING:

- Have trouble swallowing, breathing or speaking
- Sharp pain in the throat or chest
- Begin coughing up more than a few tablespoons of blood
- Have a high temperature or fever $>38^{\circ}\text{C}$
- Have redness, pain or swelling for more than 48 hours where you had the injection for sedation (hand or arm)
- Any symptoms that you think is related to today's procedure and is causing you serious concern

Please ensure you have an arranged follow up with your respiratory specialist within 2 weeks of the procedure.

If you have any questions or concerns, please contact:

Respiratory Consultant or Registrar On-call via the Sutherland Hospital Switchboard

on Telephone: 9540 7111