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<u>Cryobiopsy for ILD (Cryo-Transbronchial Lung Biopsy) Overview - Patient</u> Information Sheet

What is Cryobiopsy for ILD? Cryobiopsy is a diagnostic procedure used to evaluate interstitial lung disease (ILD). ILD encompasses a group of lung disorders characterized by inflammation and scarring of the lung tissue surrounding the air sacs. This procedure helps in obtaining larger and more representative lung tissue samples compared to traditional transbronchial biopsies, leading to a more accurate diagnosis and better-informed treatment decisions.

Procedure Steps:

1. Preparation:

- The patient is given general anaesthesia for comfort and control of bleeding.
- A rigid bronchoscope is first introduced to the desired lung location.
- A flexible bronchoscope, equipped with a camera and biopsy tools, is then inserted through the mouth into the airways.

2. Targeting the Lesion:

- The bronchoscope is guided to the lung area where ILD is suspected.
- Real-time imaging (fluoroscopy or Radial EBUS) ensures precise biopsy location.

3. Tissue Sampling:

- A cryoprobe (cold probe), which is a thin wire (1.1mm or 1.7mm in diameter) is used, cooled with liquid carbon dioxide to freeze a small lung tissue portion.
- The frozen tissue is retrieved using the bronchoscope and allowed to thaw for examination.

4. Histopathological Analysis:

 The tissue sample is sent to a pathologist for microscopic examination to identify inflammation, fibrosis, and other ILD features.

Advantages of Cryobiopsy:

- Larger and more intact tissue samples compared to conventional forceps biopsy.
- Faster recovery than open surgical biopsy.

Risks: Please see chart below.

- Common: Sore throat, low-grade fever, coughing up a small amount of blood post-procedure.
- Serious: Significant bleeding (12%), pneumothorax (24%), lung collapse (may require a chest tube), complications related to general anaesthesia.
- Rare: Rare cases of ILD flare-ups and extremely rare cases of death have been reported.

Preparation:

Medication and Food Restrictions:

- Share a list of all medications, including blood thinners, vitamins, supplements, and over-the-counter medications, with your medical team.
- Continue aspirin but stop blood-thinning agents as advised.
- Do not take diabetic medications on the morning of the procedure.
- Follow specific instructions regarding medication adjustments.
- Undergo pre-operative assessment if you have multiple medical issues.
- Perform a mandatory breathing test and echocardiogram before the procedure.

 A recent CT chest within the last 1 month should be available prior to the procedure.

Procedure Duration and Hospital Stay:

- The procedure typically lasts 60 minutes.
- Requires one-night elective ICU stay for monitoring due to delayed pneumothorax or bleeding risks.
- Discharge the next morning after a chest X-ray.
- Bring any home respiratory equipment (e.g., oxygen, CPAP machine) for post-procedure recovery.

Care at Home:

- Use Difflam throat lozenges for a sore throat.
- Drink plenty of fluids.
- Resume normal activities in 1-2 days.

Results:

- Available within one week
- Please make an appointment with your Respiratory specialist, one week after the procedure to discuss the results and start treatment

Medicare/Health fund Item Number:

- MBS item number 38420/38417 for health fund claims.
- Dr Herath does not charge a gap for your procedure and all claims will be made directly to the health fund and Medicare
- You may incur separate fees for anaesthesia, pathology, and radiology, which are beyond the control of the Sydney Respiratory Specialist clinic.

Additional Information:

 This information sheet is designed to help patients and caregivers understand the cryobiopsy procedure for ILD and what to expect. It is crucial to discuss the procedure, potential risks, and specific instructions with your respiratory specialist beforehand. If you have any specific questions or need further information, please consult your respiratory specialist.

Common side effects during or immediately after the procedure	What to Do?
Cough post procedure Coughing blood mixed with sputum	Self-resolve over 24h
Tiredness	Self-resolve in 24h
Sore throat	Difflam lozenges or throat spray for 48h
Feeling as if you have flu (30% of patients after a wash/lavage)	Take paracetamol Take your temperature This should be below 38.5 C
Bleeding during procedure. Major bleeding risk is 12% during this procedure.	We are prepared for a bleed specially during a biopsy. There will be a balloon blocker inserted into the lung to occlude any bleeding post biopsy
Air leaks outside the lung. The risk of an air leak (pneumothorax is 24%). Half of these air leaks require the insertion of a chest drain to remove the air. If this occurs you may be requested to stay in the hospital for 2-5 days.	If we anticipate an air leak, we will perform an ultrasound or a Chest X-ray to find out if this had occurred prior to discharge
Rare side effects, once you leave the hospital	What to Do?
Infection and fever post procedure	Occurs 2-4 hours post procedure in 3% patients

	If you have fever >38.5 or feel unwell, you will need IV antibiotics and fluids. Please return to emergency department of the nearest hospital.
Shortness of breath/chest pain after going home	Shortness of breath is also a sign of pneumothorax or air leak outside the lung. If this occurs, please report to the nearest hospital emergency department.
Coughing up frank blood more than a tablespoon	Coughing up frank blood more than a tablespoon is not normal. This is a sign of a larger bleed inside the lung. Please report to the nearest emergency department.

Thank you for choosing Sydney Respiratory Specialist Clinic for your bronchoscopy procedure. We appreciate your trust in our care and are committed to providing you with the highest quality of service and support.

For any queries and follow up appointments please contact: 02 9487 8373.