

Interstitial Lung Disease (ILD) Training Kit

Target Audience: Primary Care Doctors in Malaysia (both public and private)

Trainers: Selected FMS, Chest Physicians and Rheumatologists in Malaysia

In collaboration with



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Why an ILD Training Kit?

Objective

This ILD Training Kit equips primary care doctors to identify, screen, and refer patients at risk of ILD.

How does this training help Primary Care Doctors?

1. Early detection: Helps you identify patients at risk of ILD early, enabling timely intervention and better patient outcomes.
2. Efficient referrals: Provides clear referral pathways to enable earlier diagnosis and improved care coordination.

Overview of ILDs

What are ILDs?	Classification	Prevalence & Incidence	DALY & QALY
<ol style="list-style-type: none"> 1. Interstitial Lung Diseases (ILDs) is a group of diseases that primarily affect the interstitium of the lungs. 2. Can result in progressive inflammation and irreversible scarring of the lung tissues, causing decreased lung capacity 	<ol style="list-style-type: none"> 1. Describes a collection of 200 lung diseases. 2. Examples include: <ol style="list-style-type: none"> a. Idiopathic pulmonary fibrosis (IPF) b. Connective tissue disease-associated ILD (CTD-ILD) c. Exposure-related ILD d. Others (Find out more about other ILD classifications here.) 	<ol style="list-style-type: none"> 1. ILDs have a prevalence of 6.3-71.0 per 100,000 population, or up to 23,430 cases in Malaysia. 2. The incidence ranges from 1 to 31.5 per 100,000 person-years, estimating 330 to 10,395 new cases annually in Malaysia. 	<ol style="list-style-type: none"> 1. No DALY & QALY data available in Malaysia. 2. In 2019, ILDs are ~0.39% of the total Disability-Adjusted Life Years (DALYs) in the United States. <p>DALY: Disability-adjusted life year QALY: Quality-adjusted life year</p>

References:

1. Jeganathan, N., & Sathananthan, M. (2021). The prevalence and burden of interstitial lung diseases in the USA. ERJ open research, 8(1), 00630-2021. <https://doi.org/10.1183/23120541.00630-2021>
2. Kaul, B., Cottin, V., Collard, H. R., & Valenzuela, C. (2021). Variability in global prevalence of interstitial lung disease. Frontiers in Medicine, 8, 751181. <https://doi.org/10.3389/fmed.2021.751181>
3. An official American Thoracic Society/European Respiratory Society statement: Update of the international multidisciplinary classification of the idiopathic interstitial pneumonias. Am J Respir Crit Care Med. 2013 Sep 15;188(6):733-48. <https://doi.org/10.1164/rccm.201308-1483ST>.

Key Categories of ILD

Idiopathic Pulmonary Fibrosis (IPF)

1. Chronic, progressive & of unknown cause
2. Occurs primarily in older adults
3. Defined by the histological and/or radiological pattern of usual interstitial pneumonia

Connective Tissue Disease-Associated ILD (CTD-ILD)

1. Defined as evidence of ILD demonstrated by suggestive findings on HRCT scan of the lungs in the setting of an established CTD such as scleroderma or rheumatoid arthritis.

Exposure-related ILD

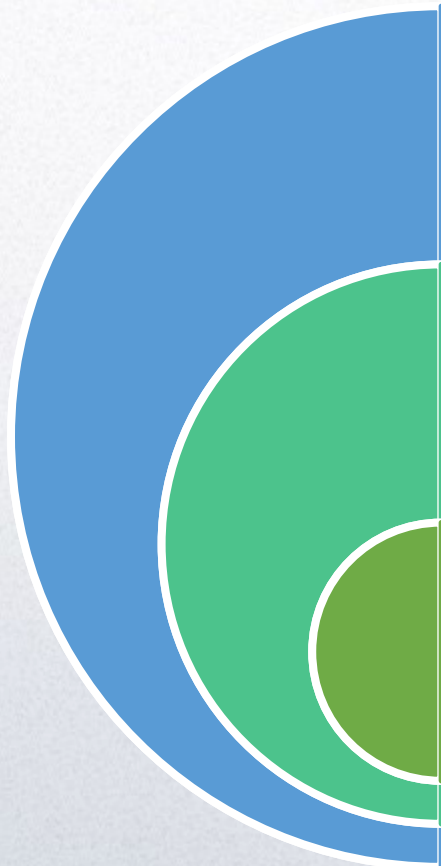
1. Arise from external noxious stimuli.
2. Can be divided into:
 - a. Occupational ILD: e.g., asbestosis, silicosis.
 - b. Environmental ILD: e.g., farmer's lung, bird fancier's lung.
 - c. Drug-induced ILD: e.g., ILD induced by methotrexate, amiodarone or nitrofurantoin.

References:

1. American Thoracic Society, 2018. Diagnosis of Idiopathic Pulmonary Fibrosis: An Official ATS/ERS/JRS/ALAT Clinical Practice Guideline.
2. H. Barnes and I. Glaspole. Occupational Interstitial Lung Disease. <https://doi.org/10.1016/j.jac.2023.01.006>
3. Vij, R., & Strek, M. E. 2013. Diagnosis and treatment of connective tissue disease-associated interstitial lung disease. Chest, 143(3), 814–824. <https://doi.org/10.1378/chest.12-0741>
4. American Thoracic Society. 2020. Connective tissue-related Interstitial Lung Disease Primer.
5. Schwaiblmair, M et al 2012. Drug induced interstitial lung disease. The open respiratory medicine journal, 6, 63–74. <https://doi.org/10.2174/1874306401206010063>

Evaluating Patients for ILD

ILD History & Symptoms



Symptoms	<ol style="list-style-type: none">1. Shortness of breath2. Dry cough3. Fatigue4. Unexplained weight loss
Relevant history	<ol style="list-style-type: none">1. Relevant occupational history2. Relevant environmental history3. Suggestive of rheumatological disease
Other history	<ol style="list-style-type: none">1. History of cigarette smoking/ vaping2. Past medical history3. Family history of lung disease or autoimmune disease4. Medication history

References:

1. Gogali, A., Wells, A.U. (2012). Diagnostic approach to interstitial lung disease. Curr Respir Care Rep 1, 199–207. <https://doi.org/10.1007/s13665-012-0029-6>

ILD Physical Examination

Fine “Velcro-like”
inspiratory
crepitations

Double click on icon to listen



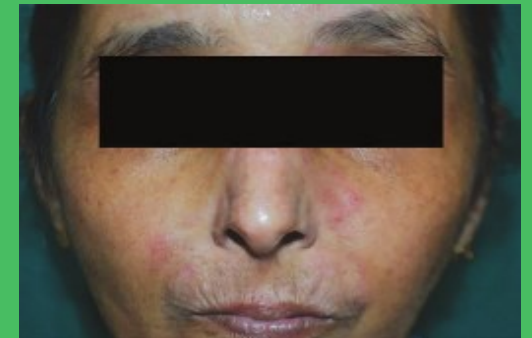
Adapted from: Pulmonary Fibrosis 360
<https://www.pulmonaryfibrosis360.com/pcp/suspecting-pulmonary-fibrosis/sound-the-alarm-for-the-sound-of-ILD>

Finger Clubbing



Adapted from: Cleveland Clinic. Nail Clubbing.
<https://my.clevelandclinic.org/health/symptoms/24474-nail-clubbing>

Signs of underlying connective tissue
diseases, e.g., skin rashes, joint
abnormalities



Adapted from:

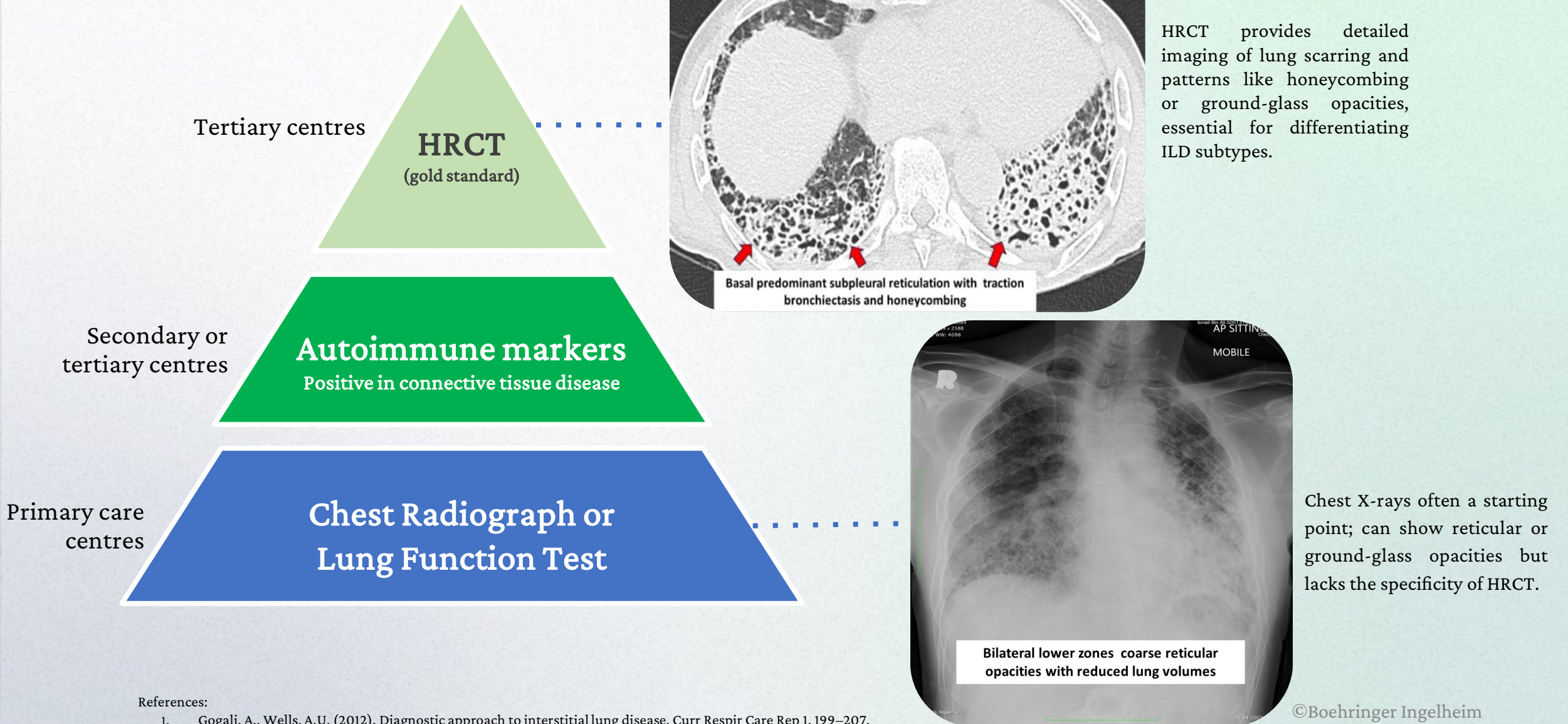
1. Johns Hopkins Medicine, Clinical Connection. Scleroderma Lung Disease: The Best Protocol for Early Detection and Treatment.
2. Dave, Jayati. (2022). Cutaneous Features, Autoantibody Profile, and Nailfold Capillaroscopy of Systemic Sclerosis: A Study of 60 Cases. Journal of the Association of Physicians of India. 70. 24-31. 10.5005/japi-11001-0136.

Exercise-induced hypoxaemia

References:

1. Royal Australian College of General Practitioners (RACGP). [Interstitial Lung Disease. An Approach to Diagnosis and Management.](#)
2. Gogali, A., Wells, A.U. (2012). Diagnostic approach to interstitial lung disease. Curr Respir Care Rep 1, 199–207. <https://doi.org/10.1007/s13665-012-0029-6>
3. Behr, J. (2012). Approach to the Diagnosis of Interstitial Lung Disease. Clinics in Chest Medicine, 33(1), 1–10.

ILD Investigations



References:

1. Gogali, A., Wells, A.U. (2012). Diagnostic approach to interstitial lung disease. Curr Respir Care Rep 1, 199–207.

Autoimmune Markers associated with Common CTDs

Connective Tissue Disease	Autoimmune Marker
Scleroderma	Antinuclear Antibody (ANA), Anti-centromere, Anti-Scl-70
Rheumatoid arthritis	Rheumatoid factor (RF), Anti-CCP
Systemic lupus erythematosus (SLE)	ANA, Anti-dsDNA, Anti-Sm

References:

1. Jog, N. R., & James, J. A. (2017). Biomarkers in connective tissue diseases. The Journal of Allergy and Clinical Immunology, 140(6), 1473-1483. <https://doi.org/10.1016/j.jaci.2017.09.019>

Please use the Referral Letter for Suspected ILD when you see...

Symptoms suggestive of ILD

1. Shortness of Breath
2. Dry Cough
3. Fatigue
4. Unexplained Weight Loss

and/or

Signs suggestive of ILD

1. Fine “Velcro-like” inspiratory crepitations
2. Finger clubbing

and/or

Investigations suggestive of ILD

1. Chest radiograph: reticular/ ground glass opacities
2. Lung function test: Restrictive pattern



Referral Letter for Suspected ILD
For Primary Care Practitioners to fill-up, to refer to Respiratory Physicians

Dear, _____ Date: _____

Thank you for seeing this patient:

Name: _____ Age: _____ I/C No: _____ Gender: ☐ Male ☐ Female


History		
Suggestive of ILD <input type="checkbox"/> Shortness of Breath <input type="checkbox"/> Dry cough <input type="checkbox"/> Fatigue <input type="checkbox"/> Unexplained weight loss <input type="checkbox"/> Other _____	Relevant Occupational History <input type="checkbox"/> _____ Relevant Environmental History <input type="checkbox"/> _____	Suggestive of Rheumatological Disease <input type="checkbox"/> Rashes <input type="checkbox"/> Joint pain ± swelling <input type="checkbox"/> Morning stiffness <input type="checkbox"/> Proximal muscle weakness <input type="checkbox"/> Raynaud's phenomenon <input type="checkbox"/> Other _____
1. Smoking history	a. History of cigarette smoking: <input type="checkbox"/> No <input type="checkbox"/> Yes Pack Years: _____	b. History of vaping: <input type="checkbox"/> No <input type="checkbox"/> Yes
2. Past medical history:	_____	
3. Family history of lung disease or auto-immune disease:	_____	
4. Medication history (list of medicine names only):	_____	
Physical Examination		
BP: _____ HR: _____ RR: _____ SpO2: _____	<input type="checkbox"/> Finger clubbing <input type="checkbox"/> Bilateral fine basal crepitations <input type="checkbox"/> Wheezing or rhonchi <input type="checkbox"/> Reduced breath sounds	Other Relevant Findings: _____
Investigations (If Available)		
1. Chest Radiograph: <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	2. Lung Function Test: a. FEV1: _____ (L) (%) b. FVC: _____ (L) (%) c. FEV1/FVC ratio: _____ (%)	3. Autoimmune Markers: a. RF Titre: _____ b. ANA Titre: _____ c. dsDNA Titre: _____

☐ I have requested the patient to bring (a) this letter, (b) all medicines, (c) all test reports, and (d) copies of all imaging films.

Thank you,

Name: _____
MMC Number: _____
Clinic Name: _____

All references available [here](#).

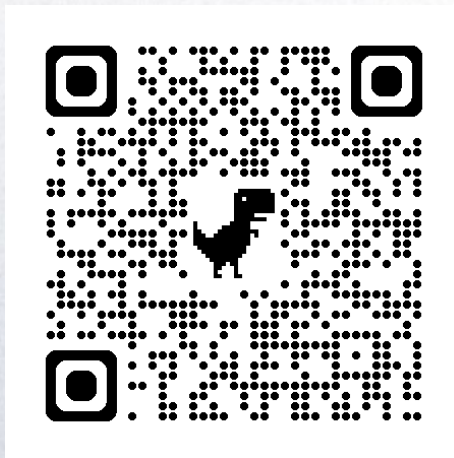
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SC-MY-05413 Production Date: March 2025

Referral Letter for Suspected ILD

To access the Referral Letter for Suspected ILD

1. Click [here](#) or,
2. Scan the QR code below.



Referral Letter for Suspected ILD
For Primary Care Practitioners to fill-up, to refer to Respiratory Physicians

Dear, _____ Date: _____

Thank you for seeing this patient:

Name: _____ Age: _____ I/C No: _____ Gender: ☐ Male ☐ Female

History		
Suggestive of ILD <input type="checkbox"/> Shortness of Breath <input type="checkbox"/> Dry cough <input type="checkbox"/> Fatigue <input type="checkbox"/> Unexplained weight loss <input type="checkbox"/> Other _____	Relevant Occupational History <input type="checkbox"/> _____ Relevant Environmental History <input type="checkbox"/> _____	Suggestive of Rheumatological Disease <input type="checkbox"/> Rashes <input type="checkbox"/> Joint pain ± swelling <input type="checkbox"/> Morning stiffness <input type="checkbox"/> Proximal muscle weakness <input type="checkbox"/> Raynaud's phenomenon <input type="checkbox"/> Other _____
1. Smoking history 2. Past medical history: 3. Family history of lung disease or auto-immune disease: 4. Medication history (list of medicine names only):	a. History of cigarette smoking: <input type="checkbox"/> No <input type="checkbox"/> Yes Pack Years: _____ b. History of vaping: <input type="checkbox"/> No <input type="checkbox"/> Yes	
Physical Examination		
BP: _____ HR: _____ RR: _____ SpO2: _____	<input type="checkbox"/> Finger clubbing <input type="checkbox"/> Bilateral fine basal crepitations <input type="checkbox"/> Wheezing or rhonchi <input type="checkbox"/> Reduced breath sounds	Other Relevant Findings: _____
Investigations (If Available)		
1. Chest Radiograph: <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	2. Lung Function Test: a. FEV1: _____ (L) _____ (%) b. FVC: _____ (L) _____ (%) c. FEV1/FVC ratio: _____ (%)	3. Autoimmune Markers: a. RF Titre: _____ b. ANA Titre: _____ c. dsDNA Titre: _____

☐ I have requested the patient to bring (a) this letter, (b) all medicines, (c) all test reports, and (d) copies of all imaging films.

Thank you,

 Name: _____
 MMC Number: _____
 Clinic Name: _____

All references available [here](#).

Referral Letter for Suspected ILD

Primary care physicians to use the Referral Letter for Suspected ILD to identify ILD risk and expedite referrals

1. Patient History and Symptoms

- 1. Patient History and Symptoms:** Document key symptoms suggestive of ILD (e.g., shortness of breath, dry cough, fatigue) along with relevant occupational, environmental, and medical histories, including smoking and medication usage.
- 2. Physical Examination:** Record vital signs, physical findings (e.g., finger clubbing, bilateral fine basal crepitations), and any other notable observations.

2. Investigations

1. Include available test results such as chest radiographs, lung function tests, autoimmune markers while highlighting any abnormalities.

Referral Letter for Suspected ILD
For Primary Care Practitioners to fill-up, to refer to Respiratory Physicians

Dear, _____ Date: _____

Thank you for seeing this patient:

Name: _____ Age: _____ I/C No: _____ Gender: ☐ Male ☐ Female

History		
Suggestive of ILD <input type="checkbox"/> Shortness of Breath <input type="checkbox"/> Dry cough <input type="checkbox"/> Fatigue <input type="checkbox"/> Unexplained weight loss <input type="checkbox"/> Other _____	Relevant Occupational History <input type="checkbox"/> _____ Relevant Environmental History <input type="checkbox"/> _____	Suggestive of Rheumatological Disease <input type="checkbox"/> Rashes <input type="checkbox"/> Joint pain ± swelling <input type="checkbox"/> Morning stiffness <input type="checkbox"/> Proximal muscle weakness <input type="checkbox"/> Raynaud's phenomenon <input type="checkbox"/> Other _____
1. Smoking history a. History of cigarette smoking: <input type="checkbox"/> No <input type="checkbox"/> Yes Pack Years: _____ b. History of vaping: <input type="checkbox"/> No <input type="checkbox"/> Yes 2. Past medical history: _____ 3. Family history of lung disease or auto-immune disease: _____ 4. Medication history (list of medicine names only): _____		
Physical Examination		
BP: _____ HR: _____ RR: _____ SpO2: _____	<input type="checkbox"/> Finger clubbing <input type="checkbox"/> Bilateral fine basal crepitations <input type="checkbox"/> Wheezing or rhonchi <input type="checkbox"/> Reduced breath sounds	Other Relevant Findings: _____
Investigations (If Available)		
1. Chest Radiograph: <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	2. Lung Function Test: a. FEV1: _____ (L) _____ (%) b. FVC: _____ (L) _____ (%) c. FEV1/FVC ratio: _____ (%)	3. Autoimmune Markers: a. RF Titre: _____ b. ANA Titre: _____ c. dsDNA Titre: _____

☐ I have requested the patient to bring (a) this letter, (b) all medicines, (c) all test reports, and (d) copies of all imaging films.




Thank you,

Name: _____

MMC Number: _____

Clinic Name: _____

All references available [here](#).

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 SC-MY-05413 Production Date: March 2025

3. Provide Clear Referral Pathways

1. Complete the referral letter with patient details, attach all relevant reports, and guide the patient to bring necessary documents to the specialist appointment

A.C.T.I.O.N.: A Step-by-Step Guide to Use the Referral Letter for Suspected ILD

A	Assess symptoms and risk factors	<ol style="list-style-type: none"> 1. Identify symptoms (e.g., progressive dyspnea, chronic cough). 2. Review patient history, lifestyle, and risk factors relevant to the condition.
C	Conduct relevant investigations	<ol style="list-style-type: none"> 1. Perform preliminary diagnostic tests, such as lung function tests or HRCT scans, to gather necessary data. 2. Ensure the results meet criteria for referral.
T	Tick off the checklist	<ol style="list-style-type: none"> 1. Complete the referral checklist systematically, documenting key symptoms, test results, and clinical findings. 2. Verify that all required sections are filled to avoid delays.
I	Initiate the referral	<ol style="list-style-type: none"> 1. Submit the completed checklist to the specialist or referral center. 2. Attach supporting documents like test results for a comprehensive evaluation.
O	Orient and educate the patient	<ol style="list-style-type: none"> 1. Explain the referral process, its importance, and what the patient can expect next. 2. Address any questions or concerns they may have.
N	Navigate follow-up <i>(Optional but Important)</i>	<ol style="list-style-type: none"> 1. Track the referral to ensure timely feedback and continuity of care. 2. Facilitate ongoing communication between the patient and the specialist.

ILD Case Studies

To access the online ILD Case Studies

1. Click [here](#) or,
2. Scan the QR code below .



Summary

1. Early detection and referral of at-risk of ILD are crucial for effective management.
2. The Referral Letter for Suspected ILD provides structured guidance to aid patient evaluation, investigations and referral decisions.
3. The case studies in this ILD Training Kit enhance physicians' confidence in identifying and managing at-risk ILD cases.
4. Collaboration with specialists ensures continuity of care and better patient outcomes.
5. To access the BIILD Learning Program ILD Resources, click [here](#)

Acknowledgment to the ILD Expert Panel



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Respiratory Physician
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KK Salak



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