NALHN Outpatient Service Information, Triage & Referral Guidelines

Description of Service:

The NALHN Respiratory Service accepts referrals for a full range of Respiratory Conditions. The Main service is provided through Lyell McEwin Hospital, with a satellite service available through Modbury Hospital.

Role of the Respiratory Specialist in NALHN:

- Confirm Diagnoses
- Optimise Therapy
- Assess and provide advice on the ongoing management of Complications
- Exclude other conditions
- Determine suitability for complex treatments and procedures/diagnostics

NALHN also provides diagnostics: Pulmonary Function Testing; Bronchoscopy (including Bronchial Ultrasound); and Pleural Procedures (including Tunneled Pleural catheters).

Conditions Seen Include:

- > Asthma
- > COPD
- > <u>Bronchiectasis</u>/Chronic Respiratory Infection
- > Pulmonary malignancy/Lung Cancer
- > Interstitial lung disease.
- > Pleural disease management.
- > Chronic Cough
- > Haemoptysis
- > <u>Tuberculosis</u>
- > Pulmonary Embolism
- Sleep Disorders (excluding sleep diagnostics)

Services Not Provided:

- Treatment for the same condition already being treated at another SA Health Public Hospital.
- > Children under 16years
- No onsite sleep lab service sleep studies/diagnostics will be arranged through TQEH, or private sleep lab if privately insured.
- > Cystic Fibrosis Management

Alternative pathways for Respiratory Conditions and management can be found in the Northern Health Network Chronic Disease Referral Pathways booklet.

http://www.northernhealth.net/

Referral Requirements:

- > Please include copies of all reports and results
- > Patients are seen based on the urgency, as judged from the referral, so referring doctors are urged to give a full and detailed referral to ensure that this is equitably managed.

NALHN prefers all referrals to be named to a clinician providing the service (see list below)

QUICK ACCESS CLINIC (QACs)

For urgent conditions, such as listed below, please contact the Respiratory Physician/Registrar on-Call via the LMH Switchboard on ph. 8182 9000.

- Acute moderate asthma not responding to GP management
- Severe COPD with Acute Exacerbation (not requiring Hospitalisation)

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URGENT Target < 1month	SEMI-URGENT Target <3months	NON-URGENT/ROUTINE
 New onset of asthma COPD with severe symptoms Suspected Malignancy 	 Follow-up post discharge with unstable asthma Unstable Respiratory Conditions with associated co-morbidities 	 Stable COPD for review of medication and action plan (1 visit only) Sleep Apnoea All other conditions

Consultants

> Dr J Geake (Head of Unit)

- > Dr MI Birader
- > Dr M Chandratilleke
- > Dr S Karunarathne

Special Interests

- > chronic suppuratives lung disease
- sleep medicine; bronchoscopic and pleural procedures for lung nodules; COPD/asthma
- chronic airways disease; pleural disease; sleep disordered breathing
- interventional bronchoscopy; pulmonary malignancy

For More Information or to Make a Referral

Location: LMH OPD Area 2 – 2nd Floor Consulting Suites

Referral Fax Number: 8182 9355

Phone Number: via LMH Switchboard 81829000

Or

Location: MH OPD Area 2&3 - Ground Floor MH

Referral Fax Number: 8161 2591

Phone Number: via MH Switchboard 8161 2000

For more information about NALHN Outpatient services - www.sahealth.sa.gov.au/NALHNoutpatients

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Sleep Apnoea

- Obstructive sleep apnoea (OSA)
 - o repetitive collapse of the upper airway associated with oxygen desaturation
- Central sleep apnoea
 - repetitive breathing pauses without upper airway obstruction of 10 seconds or more associated with oxygen desaturation

NALHN does not provide on-site sleep study diagnostic services or CPAP set up. We will aim to facilitate this through TQEH and private providers, and this may cause some delays. CPAP is subsidised for pensioners and health care card holders who meet SA criteria for CPAP provision Guidelines and who undergo diagnostic polysomnography through the Queen Elizabeth Hospital.

Referral Criteria

- Patients with suspected OSAS/Sleep hypoventilation, for objective confirmation via sleep study and advice on treatment options
- Implementation and supervision of CPAP therapy
- Review of CPAP poor responders or relapses.
- Evaluation of excess daytime sleepiness and consideration of any alternative cause for daytime sleepiness (eg Narcolepsy, PLMS)

Useful Investigations

- Epworth sleepiness score
- Baseline Laboratory investigation including CBP, Thyroid Function Test, Electrolytes
- OSA50 Screening Questionnaire
- MJA 2013; 199 S21-S26. How to assess, refer and treat adult OSA
- Results of <u>STOP BANG</u>
 <u>Questionnaire</u> (taken from www.healthysleep.net.au)

Indications for Referral and Warning Signs

- A Motor vehicle or work place accident or near miss accident due to excessive sleepiness
- OSA with coexistent respiratory or cardiac failure
- Suspected OSA with significant unstable cardiovascular disease

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Suggested GP Management

Patients may also benefit from development of the treatment plan and referral to following services when indicated:

- ENT specialist (available in NALHN LMH Fax 8182 9499 / MH fax 8161 2591)
- dental services (Via SA Dental)
- Weight management service (Via CALHN)
- Sleep <u>psychologist</u>
- Offer smoking cessation support at every opportunity <u>QUITLINE</u> phone counsellor (via online referral: cancersa.org.au/quitline/im-a-health-professional/quitline-referral)

Clinical Resources

For additional support and guidance please refer to:

- RACGP clinical guidelines.
- Usmani ZA, Chai-Coetzer CL, Antic NA, McEvoy RD. Obstructive Sleep Apnea in Adults: A Review. Postgraduate Med J. 2013;89(1049):148-56
- Obstructive Sleep Apnoea Australasian Sleep Association. http://www.sleep.org.au/documents/item/78
- https://www.mja.com.au/journal/2013/199/8/ supplement

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EPWORTH SLEEPINESS SCALE

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The Epworth Sleeping Scale is used to determine your level of daytime sleepiness. You may have answered these questions in the past, but we are interested to how you are feeling now.

For each situation, use the scale below to choose a number that corresponds to your chance of dozing or sleeping:

- 0 Would never doze or sleep
- 1 Slight chance of dozing or sleeping
- 2 Moderate chance of dozing or sleeping
- 3 High chance of dozing or sleeping

Situation		Chance of dozing or sleeping
E1	Sitting and reading	
E2	Watching TV	
E3	Sitting inactive in a public place	
E4	Being a passenger in a motor vehicle for an hour or more	
E5	Lying down in the afternoon	
E6	Sitting and talking to someone	
E7	Sitting quietly after lunch (no alcohol)	
E8	Stopped for a few minutes in traffic while driving	
E9	TOTAL SCORE (add the scores up to determine your Epworth Score)	

Thank you for completing Please fax results through with the Referral

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OSA 50 SCREENING QUESTIONNAIRE

OSA 50 Screening Questionnaire			
		If yes, <u>SCORE</u>	
Obesity	Waist circumference* - Male > 102cm or Females >88cm	3	
Snoring	Has your snoring ever bothered other people?	3	
Apnoeas	Has anyone noticed that you stop breathing during your sleep?	2	
50	Are you aged 50 years or over?	2	
	TOTAL SCORE / 10 points		

^{*}Waist measurement to be from the Umbilicus

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Asthma in adults

• Definition:

Defined as the presence of respiratory symptoms (e.g. wheeze, breathlessness, cough and chest tightness), that vary over time

AND

Objective evidence of bronchial hyper-activity (e.g change in FEV_1 of at least 200 mL and 12% from baseline, 10-15 minutes after administration of bronchodilator).

Information Required

- Duration of symptoms
- Recent asthma symptom control
- Other co-morbidities
- Any ICU/HDU admissions
- Recent hospitalisation or ED presentations
- Medication list and adherence
- Smoking status
- History of allergies (e.g. allergic rhinitis, atopic dermatitis)

Investigations Required

- Spirometry
- Chest x-ray (recommended)
- Full blood count

Indications for Referral and Warning Signs

- If there is a doubt about the diagnosis of asthma, or co-existing COPD (e.g asthma mimickers
 vocal cord dysfunction, heart failure, bronchiectasis)
- Uncontrolled asthma symptoms despite at least moderate dose ICS/LABA with adherence and inhaler technique optimised
- New diagnosis in patients 65 years of age (to rule out endobronchial lesions and asthma mimickers)
- Asthma requiring repeated hospital admissions
- Significantly elevated specific plasma IgE level raising the possibility of allergic bronchopulmonary aspergillosis
- A Patients needing oral steroids for prolonged periods or patients for consideration of specific
- amedications, e.g. monoclonal antibodies
- ☐ The need to confirm or rule out occupational asthma
- Patients with brittle asthma or a history of a near fatal asthma attack

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Suggested GP Management

- Optimise inhaled medications
- Check inhaler technique and compliance of medications
- Written asthma action plan
- Assess environmental allergens (e.g. pets, occupational)
- Look for other triggers smoking, medications (NSAIDs, beta blockers), diet, rule out Sleep apnoea
- Appropriate control of allergic rhinitis
- Consider GERD

Clinical Resources

For additional support and guidance please refer to:

- RACGP clinical guidelines.
- National Asthma Council Australia. Australian Asthma Handbook, Version 1.1. April 2015 <u>asthmahandbook.org.au</u>
- British Thoracic Society. BTS statement on criteria for specialist referral, admission, discharge and follow-up for adults with respiratory disease. March 2008

brit-thoracic.org.uk/guidelines-and-quality-standards/specialist-referral/



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Chronic Obstructive Pulmonary Disease (COPD)

• <u>Definition</u>:

Demonstration of airflow limitation which is not fully reversible (i.e. when, after administration of bronchodilator medication, the ratio of FEV₁ to FVC is <70% and the FEV₁ is <80% of the predicted value) in the setting of chronic exposure to a noxious inhaled substance.

• <u>Differential diagnoses include</u>:

Chronic asthma; other airway diseases or occupational exposures that may cause narrowing and/or hyper-responsiveness; alpha1-antitrypsin deficiency; bronchiectasis

Referral Criteria

- · Diagnostic uncertainty and exclusion of asthma
- Unusual symptoms such as haemoptysis, worsening cough
- Rapid decline in FEV1, frequent chest infections or frequent hospital admissions
- Suspected severe COPD or onset of cor pulmonale for optimisation of management
- Assessment for home oxygen therapy
- CT evidence of Bullous lung disease or unusual cystic lesions
- Assessment for lung transplantation or lung volume reduction surgery
- Early onset of COPD (age <40years) to rule out alpha- 1 antitrypsin deficiency and other cystic lung disease that can mimic COPD

Information Required

- Duration of symptoms
- Other co-morbidities
- Any ICU/HDU admissions
- Recent hospitalisation or ED presentation
- Medication list and adherence
- Smoking status

Investigations Required

- Spirometry
- Arterial blood gases

Warning Signs

Rapid decline in FEV₁

Recurrent ED presentations

A New or worsening cough

Weight loss

Unusual symptoms such as haemoptysis or change of voice

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Suggested GP Management

- Offer smoking cessation support at every opportunity
- Optimise inhaled medications & Check inhaler technique
- Develop a GPMP and written COPD action plan
- Pulmonary rehabilitation and exercise maintenance
- Annual influenza and pneumococcal immunisations
- Screen for and treat anxiety/depression
- Screen for symptoms of sleep disturbance and possible associated sleep apnoea syndromes
- Proactive end-of-life planning and care

Clinical Resources

For additional support and guidance please refer to:

- RACGP clinical guidelines.
- Lung Foundation Australia & TSANZ. COPD-X Concise Guide for Primary Care. 2016 copdx.org.au/

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Chronic Respiratory Infection including Bronchiectasis

Bronchiectasis is defined as

- Abnormal permanent dilatation of bronchi
- Often associated with recurrent infection, chronic cough or sputum retention

Note:

Cystic Fibrosis (CF) is not treated at LMH, referrals should be directed to Women's and Children's Hospital or Royal Adelaide Hospital.

Information Required

- Duration of symptoms
- Other co-morbidities
- Any ICU/HDU admissions
- Medication list
- Smoking status
- History if childhood infections
- Recurrent respiratory infections
- Haemoptysis

Investigations Required

- Sputum MCS
- Sputum Acid Fast Bacilli (AFB)
- Chest X-ray
- CBP
- LFT, ELU, glucose

Warning Signs – should prompt immediate referral to Emergency Department

- Acute exacerbation with respiratory failure
- Example 2 Features of acute intercurrent infection (e.g fever, pulmonary infiltrate)
- Large volume haemoptysis

Suggested GP Management

- Chest physiotherapy and sputum clearance techniques (use of devices like acapella)
- Antibiotic treatment guided by sputum culture

Clinical Resources

For additional support and guidance please refer to:

RACGP clinical guidelines.

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Lung Cancer

A lung investigation clinic is based at Lyell McEwin Hospital, Level 2 Outpatients. The aim
of the clinic is to provide GP's one referral pathway for patients with <u>suspected</u> Lung
Cancer.

Information Required

- History if presenting signs and symptoms
- Past medical history including current medications an allergies
- All prior relevant investigations and imaging
- Relevant psychology history
- Up to date patient contacts

Useful Investigations

- Chest X-ray
- CT Scan chest
- FBC, MBA 20, INR

Warning Signs

A Haemoptysis A Unexplained Pneumonia

A Persistent Hoarse Voice A Suspicious Radiological Lesion

A Non-resolving Pneumonia Persistent cervical/supraclavicular lymphadenopathy

Suggested GP Management

- Recognition of signs and symptoms of lung cancer
- Chest X-ray
- If suspicious CT chest
- CT-scan abnormal;
- Refer to the Lung Cancer Rapid Access Clinic

Post Treatment Protocol

- Follow up care required will vary according to the intent of the treatment
- Curative intent Surgical resection
- 6 monthly assessment with CT chest for 1 year after surgery
- Then yearly reviews with CT chest for five years by the specialist
- Long term follow up after five years by the GP in collaboration with the patient
- For patients who are not suitable for surgical resection Medical and Radiation oncology referral and follow up by them
- Palliative Treatment Monitor disease progression and provide symptom control

Government of South Australia

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Clinical Resources

For additional support and guidance please refer to:

- RACGP clinical guidelines.
- Investigating Symptoms of Lung Cancer: A guide for GPs

Patient Resources

- Vic Health "Health Translations" Lung Cancer Understanding. Managing, Living DVD
- The Cancer Council SA. Understanding lung cancer; A guide for patients and their families and friends

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Interstitial Lung Disease Including Sarcoidosis and Extrinsic Allergic Alveolitis

ILD (also known as Diffuse Parenchymal Lung Disease or Pulmonary Fibrosis) comprise a heterogeneous group of diseases affecting primarily the pulmonary interstitium and terminal airspaces, and includes the Idiopathic Interstitial Pneumonias (eg. Idiopathic Pulmonary Fibrosis) and diseases secondary to identifiable exposures (eg. Hypersensitivity Pneumonitis)

• Accounts for 15% of all chronic lung disease

Idiopathic pulmonary fibrosis, sarcoidosis and extrinsic allergic alveolitis are some commoner types of disease but its important differentiate these from many rarer disease.

• Patients usually present with dyspnoea and/or chronic cough

Information Required

- Symptom duration
- Smoking history
- Occupational/Environmental exposures including pets
- Medication/drug history
- Co-morbidities (particularly connective tissue disease and malignancy)
- Family history

Useful Investigations

- Full blood count, Electrolytes, Ca, ESR
- RF, ANA, ANCA titres
- Avian precipitating serum antibodies (if bird contact)
- Urinalysis (incase of suspected vasculitis)
- Spirometry
- Resting Sa02
- Chest X-Ray
- HRCT chest
- ECG

Indications for Referral and Warning Signs

All patients with ILD should referred to specialist clinic at the outset of their disease for confirmation of diagnosis

Since sarcoidosis is a multisystem disease, patient should be referred to other sub specialty clinics accordingly.

- ♠ Rapid progression of symptoms
- Severe resting hypoxaemia
- **⊕** Haemoptysis
- A Renal impairment, microscopic haematuria
- © Signs of cardiac failure, specifically Right heart failure

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Suggested GP Management

- Offer smoking cessation support at every opportunity <u>QUITLINE</u> phone counsellor (via online referral: <u>cancersa.org.au/quitline/im-a-health-professional/quitline-referral)</u>
- Stop any potentially causative medications
- Avoid further known allergen contact
- Treat symptoms of gastrointestinal reflux
- Preferably withhold systemic steroid therapy (may confound definitive diagnosis)

Clinical Resources

For additional support and guidance please refer to:

- RACGP clinical guidelines
- British Thoracic Society <u>Interstitial Lung Disease Guidelines</u>
 - o BTS Guideline
 - NICE IPF Guideline
 - Patient Information Sheets
- Pneumotox comprehensive Listing of Drugs causing lung toxicity

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Pleural Disease

- Diseases primarily affecting the pleural space include Pneumothorax and Pleural Effusion
- Pleural effusions can occur as a result of a number of intra and extra-thoracic diseases including malignancy, infection (including TB), pulmonary embolism, autoimmune disease, heart failure, and liver disease

Referral Criteria/Information Required

- Symptoms (local and systemic)
- Smoking history
- Asbestos exposure history
- Drug history
- Known past/current malignancies
- Co-morbidities (particularly connective tissue disease, cardiac disease, liver disease)

Useful Investigations

- Full blood count, Electrolytes, LFTs, CRP, Coags
- Sa02
- CXR
- CTPA or CT chest with contrast if PE/malignancy suspected

Warning Signs

- Abrupt onset of symptoms (pain, breathlessness), particularly if known Emphysema or recent chest trauma
- ☐ Features of infection/sepsis with persistent pleural effusion
- Lung/pleural mass on imaging
- Unilateral pleural effusion

Suggested GP Management

- Withhold anticoagulant/antiplatelet therapy pending pleural fluid sampling
- Cease any medications which could cause pleural effusion
- Trial diuretics if effusion likely transudate (history of left ventricular failure, hypoalbuminaemia) particularly if bilateral effusions present
- Do not attempt pleural fluid sampling without ultrasound guidance

Clinical Resources

For additional support and guidance please refer to:

- RACGP clinical guidelines.
- British Thoracic Society Pleural Disease Guideline

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Chronic Cough

- Cough is one of the most common reasons for a medical consultation, BUT in most patients cough will resolve in 4-6 weeks
- Chronic cough is defined as cough lasting for more than 8 weeks

Information Required

- Duration
- Co-morbidities
- Smoking history
- Medications

Investigations Required

- Chest X-ray
- Spirometry
- Full blood count, Renal function, CRP
- Sputum M, C &S
- Nasopharyngeal swab for Bordetella pertussis

Warning Signs - Prompting consideration of other diagnosis, particularly Malignancy

- Haemoptysis
- Smoker or Ex-smoker(>20 pack year history) with new cough, altered cough or cough with change in voice
- Abnormal clinical examination (e.g. localised monophonic wheeze, lymph node enlargement)
- Abnormal chest X-ray
- Systemic symptoms such as fever and weight loss

Suggested GP Management

- CXR if cough is persistent
- Smoking cessation
- Treat bacterial bronchitis, if present
- Change ACE inhibitors to another class of anti- hypertensives
- Cough syrups containing non-opioid agents such as dextromethorphan
- Trial of inhaled steroids
- Trial of Proton pump inhibitors (standard dose PPI twice daily for 8-12 weeks)
- Nasal steroids in patients with upper airway symptoms

Clinical Resources

For additional support and guidance please refer to:

- RACGP clinical guidelines.
- Medical Journal of Australia. CICADA: Cough in Children and Adults.: Diagnosis and Assessment. Australian cough guidelines summary statement. Med J Aust 2010; 192 (5): 265-271

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