Health Services Programs
Outpatient Redesign Project

Respiratory & Sleep Medicine (adult)
Clinical Prioritisation Criteria (CPC)
Outpatient Referral Criteria

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Contents

Summary

This document contains the Clinical Prioritisation Criteria (CPC) for most frequently referred Respiratory & Sleep Medicine (adult) conditions.

Respiratory & Sleep Medicine (adult) conditions

Please note this is not an exhaustive list of all conditions for outpatient services and does not exclude consideration for referral unless specifically stipulated in the exclusions section.

- Asthma
- Chronic Cough
- Chronic Obstructive Pulmonary Disease (COPD)
- Chronic Respiratory Infection
- Cystic Fibrosis (CF)
- Dyspnoea
- Haemoptysis
- Home Oxygen
- Interstitial Lung Disease (ILD)
- Lung Neoplasia
- Lung Transplantation
- Non-respiratory sleep disorders
- Pleural Disorders
- Pulmonary Rehabilitation
- Sleep disordered breathing/respiratory sleep disorders/respiratory failure
- Suspected Tuberculosis (TB)

Out of scope

Not all conditions are covered by the CPC, as certain conditions may be considered out of scope or managed by other specialist services:

- Pulmonary Hypertension

Exclusions for public specialist outpatient services

Not all conditions are appropriate for referral into the South Australian public health system. The following are not routinely provided in a public specialist outpatient service:

- Cough present for less than eight weeks
- Consideration of home oxygen in the following settings
    - Current smokers or vaping*
    - Dyspnoea in patients with PaO2 ≥ 60 mmHg or SpO2 ≥ 90% on room air
    - Where therapy has not been fully maximised (e.g. medication optimisation, pleural fluid aspiration, time for recovery from acute illness)
    - Cognitive or physical impairment that may compromise safety with oxygen therapy (e.g., dementia, no home supports)
- Pulmonary rehab if
    - Respiratory diagnosis not confirmed
    - Severe cognitive impairment or unstable psychiatric illness
    - Unstable cardiac disease
    - Uncontrolled hypertension
    - Acute unstable respiratory illness
    - Relevant infectious organism
    - Musculoskeletal or neurological conditions that prevent exercise
    - Unable to meet attendance requirements
- Suspected or confirmed non-respiratory sleep disorders in the presence of, or driven by, severe and/or unstable psychiatric disorder(s) illness including psychosis, major depression or PTSD, or in the presence of substance abuse or polypharmacy with sedating medications

**Please note assessment for oxygen therapy may be made 4 weeks after smoking cessation. Patients who are active smokers on admission to hospital will need to wait the full 4 weeks out of hospital before they would be considered for home oxygen. After the 4 weeks, the patient will need referral placed, with repeat ABG and +/- urine cotinine/exhaled carbon monoxide (CO) to clarify their smoking status & determine eligibility for home oxygen.*

Emergency information

See the individual condition pages for more specific emergency information.

Feedback

We welcome your feedback on the Clinical Prioritisation Criteria and website, please email us any suggestions for improvement at Health.CPC@sa.gov.au.

Review

The Respiratory & Sleep Medicine (adult) CPC is due for review in XXXX

Evidence Statement

The Evidence Statement for the Respiratory & Sleep Medicine (adult) CPC can be found here.

This document is for consultation only.

Asthma

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute exacerbation of asthma not responding to therapy
- asthma with any of the following concerning features:
    - coexistent pneumothorax
    - pneumonia
    - silent chest
    - cardiovascular compromise
    - altered consciousness
    - relative bradycardia
    - decreasing rate and depth of breathing
- acute respiratory distress/acute respiratory failure
    - suspected or known respiratory disease presenting with:
        - acute onset or worsening of breathlessness.
        - confusion, drowsiness, very fast or very slow breathing, not able speak in full sentences at rest due to breathing difficulty, significant increase in the use of accessory muscles of respiration (e.g. neck muscles), cyanosis
        - finger pulse oximetry (SpO_2) < 90% if this is not normal for the patient or significant worsening of the patient's baseline SpO_2.
        - new onset low blood oxygen or high blood carbon dioxide level, or significant worsening of blood oxygen or carbon dioxide level from the patient's baseline, if arterial blood gas results are available.
    - these signs/symptoms/parameters may be accompanied by a high heart rate or blood pressure changes (significantly higher or lower than the patient's baseline)

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Northern Adelaide Local Health Network

- Lyell McEwin Hospital (08) 8182 9000

Inclusions, exclusions and triage categories

Inclusions

- diagnosed asthma (airflow obstruction with acute bronchodilator response; forced expiratory volume (FEV1) variability over time) with ongoing poor asthma control – persistent symptoms; frequent and/or life-threatening exacerbations or hospitalisations; persistent airflow obstruction.

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- history of life-threatening asthma in the past 12 months requiring ventilation or ICU admission
- unstable asthma e.g., severe or persistent symptoms, or with FEV1 < 60% predicted.
- asthma caused or exacerbated by workplace exposure where patient is unable to work as a result.

Category 2 (appointment clinically indicated within 90 days)

- inadequate asthma control (see 'Clinical Management Advice and Resources') despite optimal treatment.
- concern regarding alternative diagnosis

- asthma related hospital admission/s in the last three months
- need for oral corticosteroids on more than one occasion in the last year
- asthma with frequent after-hours attendance (emergency department or after-hours general practitioner) despite optimal treatment
- asthma caused or exacerbated by workplace exposure where patient is still able to work as a result

Category 3 (appointment clinically indicated within 365 days)

- uncertainty about diagnosis without any other red flag symptoms
- asthma education where this cannot be provided in the community

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- age at diagnosis
- duration and severity of symptoms
- current and past treatment/s including inhaled steroids, inhaled bronchodilators and systemic treatments
- assessment of adherence to treatment/s
- other co-morbidities including history of allergies (e.g. allergic rhinitis, atopic dermatitis)
- recent hospitalisations including emergency department presentations and intensive care unit or high dependency unit admissions
- smoking history
- usual and current Peak Expiratory Flow Rate (PEFR)
- exam
    - respiratory distress (SaO_2 if available)
    - auscultatory findings (wheeze/crackles)
- spirometry if available
- chest x-ray (CXR)
- full blood count (FBC)

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- other tests confirming diagnosis of asthma if available
- allergy testing results

Clinical management advice and resources

The aim of asthma management is to control the disease. Complete control is defined as:

- no day or night symptoms
- minimal (less than two times per week) or no need for beta agonist treatment
- no exacerbations
- no limitations on physical activity
- minimal side effects of treatment

Clinical management advice

- optimise usual asthma therapy, including assessment of device technique and adherence to treatment (see ‘clinical resources’ for clinical guidelines)
- develop written asthma action plan (see ‘clinical resources’ for templates)
- consider and ensure appropriate management of other triggers e.g.
    - smoking

  - medications such as non-steroidal anti-inflammatory drugs (NSAIDs), beta blockers
  - diet
  - conditions such as sleep apnoea, gastro-oesophageal reflux disease (GORD), allergic rhinitis
  - environmental allergens

Clinical resources

- National Asthma Council Australia – Australian Asthma Handbook
- National Asthma Council Australia – Asthma Action Plan Library
- The Thoracic Society of Australia & New Zealand (TSANZ) Clinical Document Library – Asthma
- British Thoracic Society (BTS) statement on criteria for specialist referral, admission, discharge and follow-up for adults with respiratory disease

Consumer resources

- Asthma Australia
- National Asthma Council Australia
- Severe Asthma Toolkit
- Be Smoke Free
- Quitline (phone 13 78 48)

Key words

Asthma, wheeze, puffer

Chronic Cough

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- nil

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network
- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network
- Flinders Medical Centre (08) 8204 5511

Northern Adelaide Local Health Network
- Lyell McEwin Hospital (08) 8182 9000

Inclusions, exclusions and triage categories

Exclusions

- cough present for less than eight weeks

Triage categories

Category 1 (appointment clinically indicated within 30 days)
- nil

Category 2 (appointment clinically indicated within 90 days)
- nil

Category 3 (appointment clinically indicated within 365 days)
- cough present for greater than eight weeks with normal chest x-ray (CXR) and normal spirometry and no improvement following treatment trial as below

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- a summary of the clinical features of the cough (history, examination, investigation findings and any prior therapies)

Additional information to assist triage categorisation

- duration, severity and timing of cough
- any syncope, incontinence, shortness of breath (SOB) associated with cough
- other relevant symptoms and co-morbidities e.g. respiratory symptoms (sputum, haemoptysis, breathlessness, wheeze), post-nasal drip, gastro-oesophageal reflux disease (GORD), history of atopy or ear, nose and throat (ENT) problems, anxiety, allergies
- relevant examination findings
    - check uniform lung expansion and any percussive changes
    - clubbing, hoarse or nasal speech
    - movement of chest, percussion note, auscultation, pulse oximetry

    - signs of heart failure
- medications including results of treatment trial as above and response to bronchodilators
- smoking and occupational history
- diet
- pets
- spirometry
- sputum microscopy culture sensitivities (MCS)
- blood results
    - full blood count (FBC)
    - electrolytes
    - liver function tests (LFTs)
    - renal function
    - C-reactive protein (CRP)
    - erythrocyte sedimentation rate (ESR)
- imaging findings: all patients with chronic cough should have a chest x-ray and computed tomography (CT) imaging should be carefully considered based on age, clinical features and risk factors particularly for lung cancer
- nasopharyngeal swab for Bordetella pertussis
- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- additional symptoms e.g. voice change, swallowing difficulty
- any diurnal variation in severity (e.g. nocturnal or positional)
- triggers e.g. air temperature, food, talking, exercise
- spirometry pre and post bronchodilator
- previous gastroscopy findings
- detailed lung function (gas transfer, lung volumes, arterial blood gas)
- echocardiogram, electrocardiogram (ECG)
- thyroid function, antinuclear antibody

Clinical management advice and resources

Clinical management advice

Before specialist referral, consider treatment trial for chronic cough;

- smoking and vaping cessation should be strongly encouraged at every opportunity
- ensure occult sino-nasal disease, unresolved infectious bronchitis and acid reflux have been considered and treated appropriately. Angiotensin-converting enzyme (ACE) inhibitors should be ceased, and an alternate medication substituted (e.g. angiotensin 2 receptor antagonists)
- trial of proton-pump inhibitor (PPI)
- if unsuccessful, or symptoms of post nasal drip, commence a six-week trial of intra nasal steroid
- if unsuccessful, or evidence of asthma, commence a four-to-eight-week trial of inhaled steroids
- if unsuccessful, and appropriate in the clinical context (and not indicated earlier) complete computed tomography (CT), chest scan (including high resolution images) and refer to specialist

Other strategies for consideration include;

- treat bacterial bronchitis if present
- cough syrups containing non-opioid agents such as dextromethorphan

Clinical resources

- RACGP – ‘Viral infections and persistent cough: Evidence for treatment options’
- Cough in Children and Adults: Diagnosis and Assessment. Australian Cough Guidelines summary statement
- New England Journal of Medicine - Chronic Cough article
- Lung Foundation Australia – ‘Diagnosis and assessment of chronic cough in adults – a brief guide and clinical algorithm for primary care’

Consumer resources

- Lung Foundation Australia – Chronic Cough

Key words
Cough, chronic cough

Chronic Obstructive Pulmonary Disease (COPD)

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute exacerbation not responding to outpatient therapy.
- acute respiratory distress/acute respiratory failure
    - suspected or known respiratory disease presenting with:
        - acute onset or worsening of breathlessness.
        - confusion, drowsiness, very fast or very slow breathing, not able speak in full sentences at rest due to breathing difficulty, significant increase in the use of accessory muscles of respiration (e.g., neck muscles), cyanosis.
        - finger pulse oximetry (SpO_2) < 90% if this is not normal for the patient or significant worsening of the patient's baseline SpO_2.
        - new onset low blood oxygen or high blood carbon dioxide level, or significant worsening of blood oxygen or carbon dioxide level from the patient's baseline, if arterial blood gas results are available.
    - these signs/symptoms/parameters may be accompanied by a high heart rate or blood pressure changes (significantly higher or lower than the patient's baseline)

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511
- GP Plus Noarlunga Respiratory Outpatients - 8384 9233

Northern Adelaide Local Health Network

- Lyell McEwin Hospital (08) 8182 9000
    - Respiratory Outpatient Clinic - 8182 9966

Inclusions, exclusions and triage categories

Inclusions

- patients with uncontrolled, severe or complex COPD
    - frequent hospital admissions
    - respiratory failure
    - need for escalation in therapy
    - concern regarding alternative diagnosis

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- COPD with chronic respiratory failure
- COPD with right heart failure

Category 2 (appointment clinically indicated within 90 days)

- recurrent (> 3 in 12 months) acute exacerbations or acute presentations to emergency
- uncontrolled but stable symptoms on daily basis that limit activities of daily living (ADLs)/Class 4 dyspnoea
- requiring assessment for oxygen therapy
- COPD with demonstrated severe airflow obstruction (forced expiratory volume (FEV1) < 40%)

Category 3 (appointment clinically indicated within 365 days)

- stable COPD for consideration for pulmonary rehabilitation or education (where community services are not available)

- COPD with persistent symptoms despite optimisation of treatment, not meeting criteria for category 1 or category 2

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- duration and severity of symptoms including impact on activities of daily living (ADLs)
- systemic symptoms
- co-morbidities and diagnosis or suspicion of intercurrent disease (e.g. lung cancer)
- recent hospitalisations (including emergency department presentations and intensive care/high dependency unit admissions)
- current and previous treatment/s (including adherence to, and efficacy of these treatment/s)
- smoking and occupational history
- nutritional state
- exam
    - respiratory distress (SaO_2 if available)
    - auscultatory findings: wheeze/crackles
    - features of right heart failure
- SaO_2 or arterial blood gas (ABG) (essential if referral for oxygen assessment)
- spirometry
- chest x-ray and computed tomography (CT) chest (within last 12 months)

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- history of childhood/adolescent lung disease
- vaccination status
- blood results
    - full blood count (FBC)
    - electrolytes
    - liver function tests (LFTs)
- exercise oximetry

Clinical management advice and resources

Clinical management advice

- offer smoking cessation support at every opportunity (see ‘Consumer Resources’)
- optimise inhaled medications and check inhaler technique
- develop a GP Management Plan and written COPD Action Plan
- consider referral to Pulmonary Rehabilitation
- annual influenza and pneumococcal immunisations
- assess for intercurrent disease e.g. lung cancer
- assess for and manage comorbidities e.g. ischaemic heart disease, osteoporosis, sleep apnoea syndromes, polycythaemia, reflux, anxiety, depression

Clinical resources

- Lung Foundation Australia - COPD Action Plan
- Lung Foundation Australia & Thoracic Society of Australia and New Zealand - The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease
- Modified Medical Research Council (mMRC) Dyspnoea Scale

- International Primary Care Respiratory Group (IPCRG) - COPD Value Pyramid
- The Thoracic Society of Australia & New Zealand (TSANZ) Clinical Document Library – COPD
- Lung Foundation Australia – The Pulmonary Rehabilitation Toolkit
- Lung Foundation Australia – Managing COPD Exacerbation Checklist

Consumer Resources

- Lung Foundation Australia – COPD
- Be Smoke Free
- Quitline (phone 13 78 48)

Key words

COPD, chronic obstructive pulmonary disease, pulmonary rehabilitation, respiratory, emphysema, chronic bronchitis, COAD

Chronic Respiratory Infection

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute exacerbation with acute respiratory distress/acute respiratory failure
    - suspected or known respiratory disease presenting with:
        - acute onset or worsening of breathlessness.
        - confusion, drowsiness, very fast or very slow breathing, not able speak in full sentences at rest due to breathing difficulty, significant increase in the use of accessory muscles of respiration (e.g., neck muscles), cyanosis
        - finger pulse oximetry (SpO_2) < 90% if this is not normal for the patient or significant worsening of the patient's baseline SpO_2.
        - new onset low blood oxygen or high blood carbon dioxide level, or significant worsening of blood oxygen or carbon dioxide level from the patient's baseline, if arterial blood gas results are available.
    - these signs/symptoms/parameters may be accompanied by a high heart rate or blood pressure changes (significantly higher or lower than the patient's baseline)
- altered consciousness.
- hypoxia (<90% oxygen saturation) when this is not normal for the patient.
- features of acute intercurrent infection (e.g., fever, pulmonary infiltrate, high-volume purulent sputum)
- new and/or large volume (> 50mL) haemoptysis
- new chest x-ray (CXR) changes indicative of cavitation, consolidation, or pneumonia

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network
- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network
- Flinders Medical Centre (08) 8204 5511

Northern Adelaide Local Health Network
- Lyell McEwin Hospital (08) 8182 9000

Inclusions, exclusions and triage categories

Inclusions
- bronchiectasis (non-Cystic Fibrosis)
- Chronic Suppurative Lung Disease (CSLD)

Triage categories

Category 1 (appointment clinically indicated within 30 days)
- chronic bronchiectasis/CSLD with any of the following:
    - recurrent haemoptysis
    - rapidly decreasing exercise tolerance
    - unintentional weight loss

Category 2 (appointment clinically indicated within 90 days)
- chronic bronchiectasis/CSLD with frequent (> 3 per year) infective exacerbations despite optimal therapy
- stable symptomatic chronic bronchiectasis/CSLD
- more than 3-4 presentations of lower respiratory infections requiring antibiotics in the past 12 months

Category 3 (appointment clinically indicated within 365 days)
- asymptomatic newly diagnosed or suspected bronchiectasis/CSLD

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- history of disease including duration, severity and frequency of symptoms and exacerbations
- associated symptoms (e.g. dyspnoea, cough, haemoptysis, chest pain, leg swelling, weight loss, fevers)
- systemic symptoms
- co-morbidities
- any intensive care/high dependency unit admissions
- assessment for sinus disease and cor pulmonale
- medications (including previously trialled medications if associated with treatment failure or other problems)
- smoking status
- history of childhood infections or recurrent respiratory infections
- sputum microscopy, culture and sensitivity (MCS), fungal culture and sensitivity, nocardia Acid Fast Bacilli (AFB)
- imaging: chest x-ray or High-resolution computed tomography (HRCT) chest
- bloods results
    - full blood count (FBC)
    - liver function tests (LFTs)
    - urea
    - electrolytes
    - glucose
    - coagulation studies
    - erythrocyte sedimentation rate (ESR)
    - immunoglobulins with IgG sub class results

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- spirometry
- family history of cystic fibrosis

Clinical management advice and resources

Clinical management advice

- consider referral to physiotherapy for consideration of airway clearance
- antibiotic treatment guided by sputum culture

Clinical resources

- Australian Journal of General Practice (RACGP) – Bronchiectasis
- Australian Family Physician (RACGP) – “Bronchiectasis: A Guide For Primary Care”
- British Thoracic Society (BTS) Guideline for Bronchiectasis in Adults
- National Institute for Health and Care Excellence (NICE) Guidance - “Bronchiectasis (non-cystic fibrosis), acute exacerbation: antimicrobial prescribing”
- Lung Foundation Australia – Bronchiectasis Action Plan
- Chronic suppurative lung disease and bronchiectasis in children and adults in Australia and New Zealand: A position statement from the Thoracic Society of Australia and New Zealand and The Australian Lung Foundation
- Management of bronchiectasis and CSPD in indigenous children and adults in remote and

rural Australian communities
- European Respiratory Society guidelines for the management of adult bronchiectasis

Consumer resources
- Bronchiectasis Toolbox – Patient Handouts
- Lung Foundation Australia – My Bronchiectasis Checklist

Key words

Chronic respiratory infection, bronchiectasis, chronic bronchiectasis, chronic suppurative lung disease, CSLD, airway clearance, respiratory, wet cough

Cystic Fibrosis (CF)

Referral to emergency

For emergent clinical advice, please contact the Royal Adelaide Hospital CF Service (see 'Contacts for Clinical Advice').

Contacts for clinical advice

For referrals and/or clinical advice, please telephone the Royal Adelaide Hospital CF Service

- Between 8:00am and 4:30pm: 0421 611 006 OR (08) 7074 0801
- After hours: CF doctor via RAH switchboard (08) 7074 0000 (24 hours, 7 days a week)

Inclusions, exclusions and triage categories

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- all potential new diagnoses of CF

Category 2 (appointment clinically indicated within 90 days)

- nil

Category 3 (appointment clinically indicated within 365 days)

- nil

Referral information

For information on referral forms and how to import them, please view general referral information.

Please do not defer referral or discussion of a potential CF patient pending results.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements

Clinical management advice and resources

Clinical management advice

For any clinical management advice, please contact the Royal Adelaide Hospital CF Service (see 'Contacts for Clinical Advice').

Clinical resources

- RACGP – Cystic Fibrosis
- Cystic Fibrosis Australia - Standards of Cystic Fibrosis Care guidelines
- SA Health - An Integrated Best Practice Service Model of Cystic Fibrosis in SA

Consumer resources

- Cystic Fibrosis Australia
- Cystic Fibrosis South Australia
- Cystic Fibrosis Foundation
- SA Health - Cystic Fibrosis Consumer Fact Sheet and Cystic Fibrosis Patient Charter
- CF Physio

Key words

Cystic fibrosis, CF, genetic, inherited.

Dyspnoea

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- dyspnoea of uncertain origin with any of the following concerning features:
  - acute dyspnoea at rest
  - rapidly progressive dyspnoea
  - suspicion of acute pathology
  - demonstrated hypoxia (SpO2 < 90%)
  - accompanied by confusion
- acute respiratory distress/acute respiratory failure
  - suspected or known respiratory disease presenting with:
    - acute onset or worsening of breathlessness
    - confusion, drowsiness, very fast or very slow breathing, not able speak in full sentences at rest due to breathing difficulty, significant increase in the use of accessory muscles of respiration (e.g. neck muscles), cyanosis
    - finger pulse oximetry (SpO_2) < 90% if this is not normal for the patient or significant worsening of the patient's baseline SpO_2
    - new onset low blood oxygen or high blood carbon dioxide level, or significant worsening of blood oxygen or carbon dioxide level from the patient's baseline, if arterial blood gas results are available
  - these signs/symptoms/parameters may be accompanied by a high heart rate or blood pressure changes (significantly higher or lower than the patient's baseline)

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network
- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network
- Flinders Medical Centre (08) 8204 5511

Northern Adelaide Local Health Network
- Lyell McEwin Hospital (08) 8182 9000

Inclusions, exclusions and triage categories

Triage categories

Category 1 (appointment clinically indicated within 30 days)
- class 3-4 dyspnoea and suspected respiratory disease
- oxygen saturation < 92% at rest

Category 2 (appointment clinically indicated within 90 days)
- unexplained chronic dyspnoea of uncertain origin

Category 3 (appointment clinically indicated within 365 days)
- stable chronic dyspnoea related to known diagnosis on appropriate medical management

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.
- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable

population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- details and timeline of symptoms including variability and severity
- relevant medical conditions
- current medications/treatments
- chest x-ray (CXR)
- smoking and occupational history if relevant

Additional information to assist triage categorisation
- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- blood results
    - full blood count (FBC)
    - electrolytes
    - liver function tests (LFTs)
    - erythrocyte sedimentation rate (ESR)
    - thyroid function test (TFT)
- lung function pre and post bronchodilator
- electrocardiogram (ECG) and other relevant cardiovascular investigations
- sputum microscopy, culture and sensitivity (MCS) if productive cough
- computed tomography (CT), chest and/or other relevant thoracic imaging
- pulse oximetry

Clinical management advice and resources

Clinical management advice
- dyspnoea may have a number of causes and contributors requiring specific management, please contact relevant thoracic registrar for advice if required.
- optimise management of known respiratory or other conditions known to contribute to dyspnoea.

Clinical resources
- BMJ step by step diagnostic plan for breathlessness
- BMJ best practice differential diagnosis of breathlessness
- Modified Medical Research Council (mMRC) Dyspnoea Scale

Key words

Dyspnoea, short of breath, shortness of breath, SOB

Haemoptysis

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- haemoptysis >50mL
- ongoing, uncontrolled, worsening haemoptysis of any amount
- any haemoptysis with acute dyspnoea, measured hypoxia, altered consciousness, hypotension, tachycardia, chest pain other haemodynamic instability/compromise, or respiratory distress

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Northern Adelaide Local Health Network

- Lyell McEwin Hospital (08) 8182 9000

Inclusions, exclusions and triage categories

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- recurrent, intermittent, ongoing haemoptysis not meeting criteria for emergency referral above

Category 2 (appointment clinically indicated within 90 days)

- resolved haemoptysis associated with known haemoptysis-causing respiratory condition and no red flags

Category 3 (appointment clinically indicated within 365 days)

- nil

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- duration and volume of haemoptysis
- systemic and other symptoms associated with haemoptysis e.g. breathlessness, pleuritic chest pain, cough, leg swelling, weight loss
- past medical history and co-morbidities (particularly recent clinical events such as viral symptoms, infective bronchitis)
- current medications (detail antiplatelet & anticoagulant therapy)
- recent travel
- history of venous thromboembolism (VTE) risk factors: immobility/malignancy/oral contraceptive pill (OCP)/known or family history of thrombotic abnormality
- smoking history
- imaging
    - chest x-ray and computed tomography (CT) - CT pulmonary angiography

(CTPA) if pulmonary embolism (PE) is a consideration and renal function acceptable, no contrast allergy

- blood results
  - full blood count (FBC)
  - coagulation studies
  - urea
  - electrolytes
  - liver function tests (LFTs)

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- CT scan thorax +/- sinuses
- international normalised ratio (INR) results if on warfarin
- previous lung function test results

Clinical management advice and resources

Clinical management advice

- for massive haemoptysis or suspected tuberculosis, please phone the relevant LHN thoracic registrar.
- if haemoptysis associated with intercurrent bronchitis, treat infection
- if current smoker, advise cessation
- differential diagnosis for haemoptysis includes lung malignancy, infection including tuberculosis, pulmonary embolus/infarct, bronchiectasis, vasculitis or vascular pathology, coagulopathy

Clinical resources

- Lordan JL, Gascoigne A, Corris PA. The pulmonary physician in critical care * Illustrative case 7: Assessment and management of massive haemoptysis. Thorax. 2003;58(9):814-819. doi:10.1136/thorax.58.9.814

Consumer resources

- Healthdirect – Haemoptysis (coughing up blood)
- Be Smoke Free
- Quitline (phone 13 78 48)

Key words

Haemoptysis, coughing blood

Home Oxygen

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- altered conscious state
- severe hypoxia
- uncontrolled hypercapnia

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network
- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network
- Flinders Medical Centre (08) 8204 5511

Northern Adelaide Local Health Network
- Lyell McEwin Hospital (08) 8182 9000

Inclusions, exclusions and triage categories

Exclusions

- consideration of home oxygen in the following settings
    - current smokers or vaping*
    - dyspnoea in patients with PaO2 ≥ 60 mmHg or SpO2 ≥ 90% on room air
    - where therapy has not been fully maximised (e.g. medication optimisation, pleural fluid aspiration, time for recovery from acute illness)
    - cognitive or physical impairment that may compromise safety with oxygen therapy (e.g. dementia, no home supports)

*Please note assessment for oxygen therapy may be made 4 weeks after smoking cessation. Patients who are active smokers on admission to hospital will need to wait the full 4 weeks out of hospital before they would be considered for home oxygen. After the 4 weeks, the patient will need referral placed, with repeat arterial blood gas (ABG) and +/- urine cotinine/exhaled carbon monoxide (CO) to clarify their smoking status & determine eligibility for home oxygen.

Triage categories

Category 1 (appointment clinically indicated within 30 days)
- consideration of home oxygen in the following settings
    - chronic (stable) hypoxaemia
    - acute unstable hypoxaemia
    - exertional hypoxaemia
    - nocturnal hypoxaemia
    - emergency use
    - palliative use

Category 2 (appointment clinically indicated within 90 days)
- patients already on home oxygen requiring review

Category 3 (appointment clinically indicated within 365 days)
- nil

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- primary diagnosis and comorbidities
- smoking status (including pack years, date of cessation if relevant)
- hypercapnia - if yes, include $PaCO_2$ on arterial blood gas (ABG)
- details of any cognitive/physical limitations, if present
- respiratory physician approval and details of oxygen prescription
    - liters per minute at rest/exercise/sleep
    - usage (hours per day)
    - if relevant, oxygen flow rate during asthma (litres per minute (LPM)) via mask or nasal cannula
- indication for home oxygen
    - continuous oxygen therapy (18-24hrs/day)
        - specify if required for chronic stable hypoxaemia or unstable/acute hypoxemia
        - include results of ABG on air (PaO_2, $PaCO_2$) and LPM (O_2, PaO_2, $PaCO_2$)
    - intermittent oxygen therapy
        - specify if for exertional hypoxemia, nocturnal hypoxemia or emergency use
        - if exertional hypoxaemia, include results of 6-minute walk test
        - if nocturnal hypoxaemia, specify if requiring oxygen alone, or with nocturnal positive airway pressure (specify if continuous, bilevel or other), include overnight oximetry results (lowest SpO_2, % time spent with SpO2 < 90%)
        - if emergency use, specify if for acute asthma or other condition
    - palliative oxygen therapy for end-of-life illness with hypoxaemia - specify primary disease and respiratory complication, include results of ABG on air (PaO_2, $PaCO_2$) or if ABG not available/clinically inappropriate, SpO_2 on room air

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)

Clinical management advice and resources

Clinical management advice

Respiratory Physicians are the only medical team eligible to prescribe government funded home oxygen across South Australia. This applies to a patient's residence only, and is not applicable to Aged Care Facilities, Rehabilitation Facilities, Transitional Care Packages, My Home Hospital & Hospital in the Home. Patients who are gold card DVA & are eligible, have their oxygen funded by DVA.

The conditions for ongoing funding for home oxygen therapy include Respiratory Specialist review within 4-6 weeks of initial oxygen prescription when the patient is in a stable condition, to determine ongoing oxygen requirement and then at least every 12 months thereafter. This appointment must be made by the referring medical team.

Clinical resources

- The Thoracic Society of Australia and New Zealand (TSANZ) - Clinical Practice Guideline on Adult Domiciliary Oxygen Therapy

Consumer resources

- SA Health – Home Oxygen Therapy Patient Information

- Lung Foundation Australia – Home Oxygen
- Australian Government Department of Veterans' Affairs - D0804 - Home Medical Oxygen Therapy and/or Respiratory Home Therapy Appliances form

Key words

Home oxygen, O2, home O2, oxygen therapy

Interstitial Lung Disease (ILD)

Also known as Diffuse Parenchymal Lung Disease or Pulmonary Fibrosis.

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute exacerbations, newly diagnosed, suspected or known interstitial lung disease with severe or class 4 dyspnoea or acute respiratory distress/acute respiratory failure
    - suspected or known respiratory disease presenting with:
        - acute onset or worsening of breathlessness
        - confusion, drowsiness, very fast or very slow breathing, not able speak in full sentences at rest due to breathing difficulty, significant increase in the use of accessory muscles of respiration (e.g. neck muscles), cyanosis
        - finger pulse oximetry (SpO_2) < 90% if this is not normal for the patient or significant worsening of the patient's baseline SpO_2
        - new onset low blood oxygen or high blood carbon dioxide level, or significant worsening of blood oxygen or carbon dioxide level from the patient's baseline, if arterial blood gas results are available
    - these signs/symptoms/parameters may be accompanied by a high heart rate or blood pressure changes (significantly higher or lower than the patient's baseline)
- suspected or diagnosed sarcoidosis with any of the following concerning features:
    - new arrhythmia/chest pain
    - hypercalcaemia with acute kidney injury

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Northern Adelaide Local Health Network

- Lyell McEwin Hospital (08) 8182 9000

Inclusions, exclusions and triage categories

Inclusions

Patients with suspected or diagnosed interstitial lung disease including, but not limited to the following:

- sarcoidosis
- idiopathic interstitial pneumonias (e.g. Idiopathic Pulmonary Fibrosis)
- diseases secondary to identifiable exposures (e.g. Hypersensitivity Pneumonitis)

Exclusions

Patients with persistent small focal ground glass opacities may have adenocarcinoma-in-situ rather than interstitial lung disease. The natural history of this condition is long especially if there is no solid component and the lesion is small. It is suggested that such patients are instead referred via the Lung Neoplasia pathway. If there is uncertainty, please contact the relevant Local Health Network for advice (see 'contacts for clinical advice').

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- newly diagnosed or suspected ILD with class 2-3 dyspnoea
- known ILD with worsening hypoxemia or right heart failure
- known, suspected or rapidly progressive sarcoidosis or sarcoidosis complicated by any of the following concerning features:
    - visual disturbance
    - hypercalcemia
    - palpitations

  - pre-syncope
  - class 3-4 dyspnoea

Category 2 (appointment clinically indicated within 90 days)

- chronic ILD with class 1 dyspnoea
- newly diagnosed or suspected ILD without symptoms
- known sarcoidosis with progressive symptoms
- suspected sarcoidosis

Category 3 (appointment clinically indicated within 365 days)

- known ILD with stable symptoms requiring specialist opinion
- known sarcoidosis requiring specialist review

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- a summary of the clinical features of the case including relevant history, examination and investigation findings as well as any prior treatment (noting the points below in additional information)
- Imaging results: all patients with suspected interstitial lung disease should undergo a high resolution computed tomography (HRCT) chest, and organising this before their specialist consultation will expedite their respiratory care

Additional information to assist triage categorisation

- details of diagnosis, including relevant previous investigations
- duration and severity of respiratory symptoms
- systemic symptoms
- co-morbidities (particularly connective tissue disease and malignancy)
- medications
- smoking and drug history
- occupational and environmental exposures (e.g. pets)
- family history
- travel history
- bloods
  - full blood count (FBC)
  - electrolytes
  - calcium
  - erythrocyte sedimentation rate (ESR)
- chest x-ray (CXR), high-resolution computed tomography (HRCT) chest
- if available:
  - rheumatoid factor (RF), antinuclear antibody (ANA), extractable nuclear antigen (ENA), antineutrophil autoantibodies (ANCA) titres/connective tissue disease screen
  - avian precipitating serum antibodies (if bird contact)
  - urinalysis
  - SpO_2
  - electrocardiogram (ECG)
  - detailed lung function (spirometry, gas transfer, lung volumes) (can be organised with appointment if required)

Clinical management advice and resources

Clinical resources

- Australian Family Physician – Interstitial Lung Disease: An approach to diagnosis and management
- Lung Foundation Australia – Overview: Interstitial Lung Disease
- Pneumotox
- Treatment of Idiopathic Pulmonary Fibrosis in Australia and New Zealand from The Thoracic Society of Australia and New Zealand and The Lung Foundation Australia – Position Statement
- The Thoracic Society of Australia and New Zealand (TSANZ) Clinical Document Library – Interstitial Lung Disease

Consumer resources

- Lung Foundation Australia - ILD
- Be Smoke Free
- Quitline (phone 13 78 48)

Key words

Interstitial lung disease, ILD, sarcoidosis, Idiopathic Pulmonary Fibrosis, Hypersensitivity Pneumonitis

Lung Neoplasia

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- suspected or known lung cancer with any of the following concerning features:
    - massive haemoptysis
    - suspected large airway obstruction
    - severe dyspnoea
    - superior vena cava (SVC) obstruction
    - hypercalcaemia/hyponatremia with confusion
    - symptomatic pleural effusion
    - risk of decompensation or rapid deterioration
- acute respiratory distress/acute respiratory failure
    - suspected or known respiratory disease presenting with:
        - acute onset or worsening of breathlessness
        - confusion, drowsiness, very fast or very slow breathing, not able speak in full sentences at rest due to breathing difficulty, significant increase in the use of accessory muscles of respiration (e.g. neck muscles),cyanosis
        - finger pulse oximetry (SpO_2) < 90% if this is not normal for the patient or significant worsening of the patient's baseline SpO_2
        - new onset low blood oxygen or high blood carbon dioxide level, or significant worsening of blood oxygen or carbon dioxide level from the patient's baseline, if arterial blood gas results are available
    - these signs/symptoms/parameters may be accompanied by a high heart rate or blood pressure changes (significantly higher or lower than the patient's baseline)

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511
- Noarlunga Hospital (08) 8384 9222

Northern Adelaide Local Health Network

- Lyell McEwin Hospital (08) 8182 9000
- Modbury Hospital (08) 8161 2000

Inclusions, exclusions and triage categories

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- any new lung mass suspicious of malignancy
- previously treated lung cancer with suspected recurrence or complications

Category 2 (appointment clinically indicated within 90 days)

- solid pulmonary nodules > 8mm or nodules > 6mm in a patient with risk factors for malignancy (see Fleischner guidelines for pulmonary nodules)

Category 3 (appointment clinically indicated within 365 days)

- see Fleischner guidelines for pulmonary nodules

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- nature and history of presenting signs and symptoms
- past medical history including allergies, psychological history, cancer history (and treatment)
- medications
- up to date patient contacts
- smoking history in pack years (pack years = number of years smoking x number of packs per day)
- occupational (e.g. asbestos exposure) history
- recent travel
- chest x-ray (CXR), computed tomography (CT) chest
- blood results
    - full blood count (FBC)
    - multiple biochemistry analysis (MBA20)
    - international normalised ratio (INR)
    - urea
    - electrolytes
    - coagulation studies

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- pathology results of previous cancer if relevant

Clinical management advice and resources

Clinical management advice

- for large masses or suspicion of impending clinical instability/highly urgent cases, please speak to the relevant local health network (LHN) registrar

Clinical resources

- Cancer Australia
    - Lung Cancer – Guidance for GPs
    - Investigating Symptoms of Lung Cancer: a guide for GPs
    - Investigating Symptoms of Lung Cancer – Interactive diagnostic tool
- Optimal care pathway for people with lung cancer
    - Optimal care pathway for people with lung cancer quick reference guide
- Fleischner guidelines for pulmonary nodules
- Fleischner Calculator

Consumer resources

- Health Translations – “Getting the best advice and care – a guide for those affected by lung cancer”
- The Cancer Council SA – “Understanding Lung Cancer. A guide for people with cancer, their families and friends”
- Lung Foundation Australia – Overview: Lung Cancer

Key words

Lung neoplasia, lung cancer, lung nodule, lung mass, malignancy

Lung Transplantation

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- nil

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- South Australian Lung Transplant Unit (statewide service): phone 70742760

Inclusions, exclusions and triage categories

- referrals from Respiratory Physicians only
- for enquiries regarding pre and post Lung Transplantation patients or pathways, please phone the unit at the number listed above

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements

Clinical management advice and resources

Clinical management advice

- maximise medical management of respiratory condition
- ensure patient has completed or been referred to Pulmonary Rehabilitation

Clinical resources

- SA Lung Transplant Unit (phone 70742760)
- Lung Foundation Australia & Thoracic Society of Australia and New Zealand's COPD-X Concise Guide (Chapter O9.3 – Lung Transplantation)

Consumer resources

- Transplant Australia – Lung Transplant
- Lung Foundation Australia – Lung Transplantation Fact Sheet

Key words

Lung transplant, lung transplantation

Non-Respiratory Sleep Disorders

Referral to Emergency Department

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- call respiratory/sleep registrar on call for advice if needed.

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511
- Noarlunga Hospital (08) 8384 9222

Northern Adelaide Local Health Network

- Lyell McEwin Hospital (08) 8182 9000
- Modbury Hospital (08) 8161 2000

Inclusions, exclusions and triage categories

Inclusions

Suspected or confirmed clinical disorders

- excessive daytime sleepiness (people who cannot stay awake) in the absence of readily identifiable factors, e.g. use of sedating medications, presence of environmental or lifestyle factors preventing adequate quality and/or quantity of sleep, poor sleep-wake hygiene
  e.g. Narcolepsy, Idiopathic Hypersomnia
- circadian rhythm sleep-wake disorder (people who are not sleeping at the right time)
  e.g. Delayed Sleep Phase Syndrome, Shift Work Disorder
- chronic primary insomnia (people who cannot sleep at night)
  - difficulty initiating or maintaining sleep lasting > 3 months, not associated grieving or severe and/or unstable psychiatric illness
- parasomnia (people who behave abnormally during sleep)
  e.g. sleep-walking or sleep-eating, rapid eye movement (REM) Behaviour Disorder, severe nightmares not related to psychiatric illness or post-traumatic stress disorder (PTSD)
- sleep-related movement disorders (people who exhibit abnormal movements during sleep or close to sleeping time)
  e.g. Restless Legs Syndrome

Exclusions

- suspected or confirmed non-respiratory sleep disorders in the presence of, or driven by, severe and/or unstable psychiatric disorder(s) illness including psychosis, major depression, or post-traumatic stress disorder, or in the presence of substance abuse or polypharmacy with sedating medications.

Triage Categories

Category 1 (appointment clinically indicated within 30 days)

- suspected or confirmed non-respiratory sleep disorder with any of the following:
  - road crash or work-related accident or near miss accident due to excessive sleepiness within the last 12 months
  - dozing at the wheel $\geq$ once per month
  - Epworth Sleepiness Scale (ESS) score $\geq$ 16
    - Rapid excess for sleepy patients holding safety critical occupation
  - pregnancy

Category 2 (appointment clinically indicated within 90 days)

- suspected or confirmed non-respiratory sleep disorder with any of the following:
  - road crash or work-related accident or near miss accident due to excessive

    - sleepiness within the last 5 years but not within the last 12 months
    - dozing at the wheel within the last 12 months and no more than once a month
    - Epworth Sleepiness Scale (ESS) score 10-15
    - patients holding safety critical occupation
- suspected or confirmed Narcolepsy or Idiopathic Hypersomnia, regardless of the above
- suspected parasomnia or sleep related movement disorder with risk of significant harm to self or others, regardless of the above
    - this may qualify for category 1 depending on the risk of harm to self or others

Category 3 (appointment clinically indicated within 365 days)

- suspected or confirmed sleep disordered breathing not meeting indication for emergency presentation, category 1 or category 2, but still require specialist respiratory/sleep clinic review

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- triaging information
    - specify urgency (category one, two or three) according to triaging criteria
    - Epworth Sleepiness Scale (ESS) score
    - occupation
    - history of road crash or work-related accident or near miss accident due to sleepiness, including date, if relevant
    - frequency of dozing at the wheel, if relevant
    - reports of previous sleep and respiratory investigations if available
- general information
    - identifies as Aboriginal and/or Torres Strait Islander
    - relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf
    - interpreter requirements
- suspected/confirmed non-respiratory sleep disorder
    - duration, frequency and severity of symptoms
    - treatment to date and response/outcome
- relevant other clinical information
    - body mass index (BMI)
    - significant co-morbidities, including mental health, cardiac, neurological, neurodegenerative, respiratory and non-respiratory sleep disorders
    - current medications
    - blood panel report if available, e.g. full blood count (FBC), electrolytes and renal function, thyroid function test, fasting iron studies (Restless Legs Syndrome)

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)

Clinical management advice and resources

Clinical management advice

Scope of investigations/treatment/management provided:

- diagnostic work-up
- implementation of treatment, optimisation and supervision of therapy where care cannot be provided by a general practitioner alone
- specialist management of non-respiratory sleep disorder, including those with:
    - a history of road or work-related accident or near miss accident due to excessive sleepiness regardless of type of occupation

    - safety critical occupation, e.g. commercial drivers, operators of heavy machinery
    - intractable symptoms
- multi-disciplinary management including access to sleep psychiatry and/or clinical sleep psychology teams

Referring doctor is responsible for:

- assessing the immediate fitness to drive based on AustRoads 2022 guidelines
    - this may include advising the patient to avoid driving, and reporting to TransportSA if necessary.
- counselling the patient, including safe driving tips and good sleep hygiene
- implementing lifestyle changes as part of healthy living and better sleep health measure, including:
    - maintaining a healthy lifestyle
    - smoking cessation (see 'Consumer Resources' below)
    - maintaining a healthy weight, including losing weight if overweight
    - following the Australian guidelines for alcohol consumption
    - reducing/avoiding use of sedative medications if relevant

Clinical resources

- Australian Journal of General Practice (RACGP) – Insomnia management
- Assessing Fitness to Drive Guidelines

Consumer resources

- Sleep Disorders Australia
- Sleep Health Foundation

Key words

Sleepiness, narcolepsy, insomnia, parasomnia, restless legs, periodic limb movements

Pleural Disorders

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- large symptomatic pleural effusion
- pleural effusion with acute respiratory distress/acute respiratory failure
    - suspected or known respiratory disease presenting with:
        - acute onset or worsening of breathlessness
        - confusion, drowsiness, very fast or very slow breathing, not able speak in full sentences at rest due to breathing difficulty, significant increase in the use of accessory muscles of respiration (e.g. neck muscles), cyanosis
        - finger pulse oximetry (SpO_2) < 90% if this is not normal for the patient or significant worsening of the patient's baseline SpO_2
        - new onset low blood oxygen or high blood carbon dioxide level, or significant worsening of blood oxygen or carbon dioxide level from the patient's baseline, if arterial blood gas results are available
    - these signs/symptoms/parameters may be accompanied by a high heart rate or blood pressure changes (significantly higher or lower than the patient's baseline)
- suspected infection (empyema)
- traumatic pleural effusion/haemothorax (liaise with cardiothoracic surgical unit)
- acute pneumothorax
    - if severe respiratory distress or haemodynamic compromise, consider possibility of tension pneumothorax requiring immediate drainage

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network
- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network
- Flinders Medical Centre (08) 8204 5511

Northern Adelaide Local Health Network
- Lyell McEwin Hospital (08) 8182 9000

Inclusions, exclusions and triage categories

Inclusions
- new or persistent pleural effusion not due to cardiac failure
- pneumothorax
- pleural plaques/pleural thickening

Triage categories

Category 1 (appointment clinically indicated within 30 days)
- new or persistent pleural effusion

Category 2 (appointment clinically indicated within 90 days)
- extensive pleural disease including
    - pleural thickening
    - pleural calcification

Category 3 (appointment clinically indicated within 365 days)
- pleural plaques/pleural thickening

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf.
- interpreter requirements
- symptoms (both local and systemic)
- smoking, drug and exposure (e.g. asbestos, tuberculosis) history
- known past/current malignancies
- nutritional state
- occupational and recreational history
- co-morbidities (particularly connective tissue disease, cardiac disease, liver disease) and diagnosis or suspicion of intercurrent disease (e.g. lung cancer)
- if pleural effusion, signs of underlying condition e.g. heart failure, liver or kidney disease, neoplasia or infection – pneumonia or empyema (history of aspiration/loss of consciousness)
- blood results
    - full blood count (FBC)
    - electrolytes
    - liver function tests (LFTs)
    - C-reactive protein (CRP)
    - coagulation studies
- SaO_2
- chest x-ray (CXR), computed tomography (CT) chest with contrast or CT pulmonary angiogram if pulmonary embolism (PE)/malignancy suspected

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- echocardiogram
- VQ scan

Clinical management advice and resources

Clinical management advice

- consider withholding anticoagulant/antiplatelet therapy pending pleural fluid sampling if clinically safe
    - do not attempt pleural fluid sampling without ultrasound guidance
- trial diuretics if effusion likely transudate (history of left ventricular failure, hypoalbuminaemia), particularly if bilateral effusions present

Clinical resources

- British Thoracic Society Pleural Disease guideline
- ADRI (Asbestos Diseases Research Institute) Guidelines for the Diagnosis and Treatment of Malignant Pleural Mesothelioma
- RACGP clinical guidelines
- Pneumotox

Consumer resources

- ADDRI (Asbestos and Dust Diseases Research Institute) Mesothelioma Support Service
- Health Direct – Pleural Effusion
- Health Direct – Pneumothorax

Key words
Pleural effusion, pneumothorax, pleural plaques, pleural thickening, pleural calcification, pleural mesothelioma

Pulmonary Rehabilitation

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- nil

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- Royal Adelaide Hospital (Hampstead Campus) Pulmonary Rehabilitation Coordinator – 0412 045 162
- The Queen Elizabeth Hospital Physiotherapy Department – (08) 8222 6621 or 0479 172 273

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511
- GP Plus Noarlunga - (08) 8164 9853

Northern Adelaide Local Health Network

- GP Plus Elizabeth Pulmonary Rehabilitation Coordinator – 0481 461 386
- GP Plus Modbury Pulmonary Rehabilitation Coordinator – 0481 461 386
- Muna Paiendi Pulmonary Rehabilitation Coordinator – 0481 461 386

Inclusions, exclusions and triage categories

Exclusions

- respiratory diagnosis not confirmed
- severe cognitive impairment or unstable psychiatric illness
- unstable cardiac disease
- uncontrolled hypertension
- acute unstable respiratory illness
- relevant infectious organism
- musculoskeletal or neurological conditions that prevent exercise
- unable to meet attendance requirements

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- chronic obstructive pulmonary disease (COPD) after recent exacerbation and/or recent respiratory admission
- post-lobectomy/pneumonectomy
- people undergoing assessment and/or awaiting lung transplantation

Category 2 (appointment clinically indicated within 90 days)

- stable COPD and/or other respiratory conditions

Category 3 (appointment clinically indicated within 365 days)

- attended Pulmonary Rehabilitation in the last 18 months
- category 2 patients with a history of failing to attend

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf

- interpreter requirements
- respiratory medications
- home oxygen requirements
- copy of detailed pulmonary function tests (PFTs)
- copy of relevant blood results
- copy of other tests performed: arterial blood gas (ABG), six minute walk test (6MWT), chest x-ray (CXR), computed tomography (CT), electrocardiogram (ECG)/echocardiogram

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- copy of chronic obstructive pulmonary disease (COPD) action plan

Clinical management advice and resources

Clinical management advice

For pulmonary rehab to be optimally effective, optimisation of patients' medical condition prior is essential. Please ensure that any comorbidities are as best possible controlled and consider completing a chronic obstructive pulmonary disease (COPD) action plan if appropriate.

Clinical resources

- Lung Foundation Australia – The Pulmonary Rehabilitation Toolkit
- Lung Foundation Australia & Thoracic Society of Australia and New Zealand - The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease – X3.6 Pulmonary Rehabilitation

Consumer resources

- Lung Foundation Australia – Pulmonary Rehabilitation

Key words

Pulmonary Rehabilitation, rehab, exercise, physiotherapy, physio, lung function, respiratory, COPD

Sleep Disordered Breathing/Chronic Hypoventilation Syndromes

Referral to Emergency Department

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute respiratory distress/acute respiratory failure
    - suspected or known respiratory disease presenting with:
        - acute onset or worsening of breathlessness
        - confusion, drowsiness, very fast or very slow breathing, not able speak in full sentences at rest due to breathing difficulty, significant increase in the use of accessory muscles of respiration (e.g. neck muscles), cyanosis
        - finger pulse oximetry (SpO_2) < 90% if this is not normal for the patient or significant worsening of the patient's baseline SpO_2
        - new onset low blood oxygen or high blood carbon dioxide level, or significant worsening of blood oxygen or carbon dioxide level from the patient's baseline, if arterial blood gas results are available
    - these signs/symptoms/parameters may be accompanied by a high heart rate or blood pressure changes (significantly higher or lower than the patient's baseline)

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network
- Royal Adelaide Hospital (08) 7074 0000
- The Queen Elizabeth Hospital (08) 8222 6000

Southern Adelaide Local Health Network
- Flinders Medical Centre (08) 8204 5511
- Noarlunga Hospital (08) 8384 9222

Northern Adelaide Local Health Network
- Lyell McEwin Hospital (08) 8182 9000
- Modbury Hospital (08) 8161 2000

Inclusions, exclusions and triage categories

Inclusions

suspected or confirmed clinical disorders

- sleep disordered breathing
    - obstructive sleep apnoea (OSA)
    - central sleep apnoea (CSA) syndromes (e.g. from heart or cerebrovascular disease)
- chronic hypoventilation syndromes (type 2 respiratory failure), including
    - obesity hypoventilation syndrome (OHS)
    - obstructive lung disease, e.g. chronic obstructive pulmonary disease (COPD), with or without overlap with OSA
    - neuromuscular disorder
    - chest wall respiratory disorder (e.g. kyphoscoliosis, post-poliomyelitis)
    - hypoventilation related to medication or substance (e.g. opioid)
- chronic ventilatory failure requiring ventilatory support via tracheostomy (e.g. post-high cervical cord injury, rare congenital disorders)

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- suspected or confirmed sleep disordered breathing (of any category) with any of the following:
    - road crash or work-related accident or near miss accident due to excessive sleepiness within the last 12 months
    - dozing at the wheel $\geq$ once per month
    - Epworth Sleepiness Scale (ESS) score $\geq$ 16
        - rapid excess for sleepy patients holding safety critical occupation
    - patients requiring urgent work-up for solid-organ or haematological transplantation, or

prevention of serious deterioration in end-organ function, e.g. unstable heart or cerebrovascular disease
    - patients requiring pre-operative work-up for urgent non-emergency surgery scheduled ≤ 4 weeks in whom treatment or optimisation of sleep disordered breathing is required
    - pregnancy
    - diagnostic sleep study demonstrating mean sleep oxygen saturation < 90%
- suspected or confirmed chronic hypoventilation syndromes with any of the following*:
    - rapidly progressive neuromuscular disorder
    - newly diagnosed daytime hypercapnia with $PaCO_2$ > 45 mmHg (if arterial blood gas (ABG) sampling undertaken), particularly if accompanied by symptoms of hypercapnia, e.g. drowsiness, sleepiness, morning headaches
        - does not include patients with known chronic hypoventilation with stable symptoms and hypercapnia at a satisfactory level as assessed by specialist Respiratory/Sleep Physician
- chronic ventilatory failure requiring ventilatory support via tracheostomy
- SA Prison patients commenced on PAP therapy during incarceration seeking uninterrupted PAP therapy post-incarceration

**not meeting indication for emergency presentation or criteria for acute respiratory failure*

Category 2 (appointment clinically indicated within 90 days)

- suspected or confirmed sleep disordered breathing (of any category) with any of the following:
    - road crash or work-related accident or near miss accident due to excessive sleepiness within the last 5 years but not within the last 12 months
    - dozing at the wheel within the last 12 months and no more than once a month
    - Epworth Sleepiness Scale (ESS) score 10-15
    - patients holding safety critical occupation
    - patients with significant co-morbid end-organ disease, including, but not limited to, solid or haematological transplantation, Cystic Fibrosis, COPD, pulmonary hypertension, cardiac disease (arrythmia, ischaemia, heart failure), cerebrovascular disease, neurological or neurodegenerative disease, acromegaly
    - severe OSA with apnoea-hypopnoea index (AHI) ≥ 30 per hour
- suspected or confirmed chronic hypoventilation syndromes requiring diagnostic work-up or treatment optimisation respectively and not meeting criteria for Category 1, or indication for emergency presentation or criteria for acute respiratory failure

Category 3 (appointment clinically indicated within 365 days)

- suspected or confirmed sleep disordered breathing not meeting indication for emergency presentation or criteria for acute respiratory failure, category 1 and category 2, but still require specialist respiratory/sleep clinic review

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- triaging information
    - specify urgency (category 1, 2 or 3) according to triaging criteria
    - STOP-BANG or OSA50 AND ESS score for suspected obstructive sleep apnoea (OSA)
    - occupation
    - concession card status (health care card or pensioner)
    - history of road crash or work-related accident or near miss accident due to sleepiness, including date, if relevant
    - frequency of dozing at the wheel, if relevant
    - reports of previous sleep and respiratory investigations if available
        - lung function and arterial blood gas (ABG) reports if available, for hypoventilation syndromes

    - advanced respiratory support, e.g. bilevel positive airway pressure (BPAP), ventilation via tracheostomy
- general information
    - identifies as Aboriginal and/or Torres Strait Islander
    - relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf
    - interpreter requirements
- suspected/confirmed sleep disordered breathing
    - duration and severity of symptoms including snoring, nocturnal choking/gasping, witnessed apnoeic episodes, unrefreshing sleep, morning headaches, excessive daytime sleepiness including instances of falling asleep inappropriate during the daytime or working shifts
    - known craniofacial abnormalities, e.g. large tonsils, retrognathia
    - treatment to date (e.g. positive airway pressure (PAP), oral appliance, surgery) and response/outcome
- hypoventilation syndromes
    - relevant diagnosis (suspected or confirmed) and treatment to date if applicable
- relevant other clinical information
    - body mass index (BMI)
    - significant co-morbidities, including cardiac, neurological, mental health, respiratory and non-respiratory sleep disorders
    - current medications, including those causing sedation
    - blood panel report if available, e.g. full blood count (FBC), electrolytes and renal function, thyroid function test

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)

Clinical management advice and resources

Clinical management advice

Scope of investigations/treatment/management provided

- diagnostic and/or treatment optimisation sleep study
- implementation and supervision/monitoring of positive airway pressure (PAP) therapy:
    - continuous positive airway pressure (CPAP) for obstructive sleep apnoea (OSA) especially if deemed not able to be managed by general practitoner alone, e.g.
        - review of poor CPAP responders
        - access to multi-disciplinary Ear, Nose & Throat, dental or oro-maxillofacial surgical pathway for OSA treatment in patients who have failed CPAP therapy
    - bi-level PAP for chronic hypoventilation syndromes
    - appropriate PAP and/or other therapies for central sleep apnoea (CSA) depending on aetiology
- specialist management of sleep disordered breathing, including those with:
    - a history of road or work-related accident or near miss accident due to excessive sleepiness regardless of type of occupation
    - safety critical occupation, e.g. commercial drivers, operators of heavy machinery
    - residual excessive daytime sleepiness or symptoms of non-respiratory sleep disorder(s) despite optimal treatment of their primary disorder
    - co-morbid cardiopulmonary disorder(s) (e.g. chronic obstructive pulmonary disease (COPD), interstitial lung disease (ILD), pulmonary hypertension, heart failure) or hypoventilation due to medication or substance (e.g. opioid)
- multi-disciplinary management of complex respiratory needs, including
    - patients requiring ventilation via tracheostomy
    - patients with sleep disordered breathing requiring transition from paediatric to adult care

Referring doctor is responsible for:

- assessing the immediate fitness to drive based on AustRoads 2022 guidelines
    - this may include advising the patient to avoid driving, and reporting to TransportSA if necessary
- counselling the patient, including safe driving tips and good sleep hygiene
- implementing lifestyle changes as part of healthy living and better sleep health measure, including:
    - maintaining a healthy lifestyle
    - smoking cessation (see 'Consumer Resources' below)
    - maintaining a healthy weight, including losing weight if overweight
    - following the Australian guidelines for alcohol consumption
    - reducing/avoiding use of sedative medications if relevant

Referral tips

- a change in the patient's clinical status (e.g. rapid clinical deterioration or becoming pregnant) may affect the urgency categorisation and should be communicated as soon as possible
- patients with suspected or proven Motor Neuron Disease (MND)/Amyotrophic Lateral Sclerosis (ALS) should be preferentially referred to the statewide multidisciplinary MND service at Southern Adelaide Local Health Network (SALHN)
- referring medical officers may be asked to provide required information (e.g. STOP-BANG or OSA50 and Epworth Sleepiness Scale (ESS) scores, or report of any available/prior sleep study) before an appointment is provided
- criteria for public funding of PAP equipment may vary across different local health networks (LHN). In general, these are based on
    - concession card status
    - severity of sleep disordered breathing or hypoventilation syndromes
    - subjective and/or objective improvement with therapy
    - adherence to therapy (reaching minimum hours of usage/day)
    - satisfactory care of government-funded equipment
- acceptability of non-tertiary sleep study reports for access to publicly funded PAP equipment will be at the discretion of the triaging sleep physician at the LHN concerned. In general reports must be clearly legible (colour copy preferred) and the quality of the studies must be deemed to be acceptable.

Clinical resources

- Usmani ZA, Chai-Coetzer CL, Antic NA, McEvoy RD. Obstructive Sleep Apnea in Adults: A Review. Postgraduate Med J. 2013;89(1049):148-56
- National Centre for Sleep Health Services Research Primary Care Resource – Obstructive Sleep Apnoea
- Sleep disorders: a practical guide for Australian health care practitioners – sponsored by the Australasian Sleep Association and the Sleep Health Foundation
- Australasian Sleep Association Position Statement – Benefits of treatment of obstructive sleep apnoea
- Australian Journal of General Practice (RACGP) - Update on the assessment and investigation of adult sleep apnoea
- Australian family Physician (RACGP) – Sleep apnoea: A general practice approach
- Assessing Fitness to Drive

Consumer resources

- Sleep Health Foundation
- Be Smoke Free
- Quitline (phone 13 78 48)

Key words

Sleep apnoea, obstructive sleep apnoea, OSA, sleepiness, microsleep, respiratory failure

Suspected Tuberculosis (TB)

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- if confirmed or suspected TB, please phone the TB team (see contacts for clinical advice)

Contacts for clinical advice

For urgent referrals and/or clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Central Adelaide Local Health Network

- Royal Adelaide Hospital
  - Mon-Fri, 9am-5pm: Contact the Chest Clinic 7074 1089/ 7117 2967 or the Thoracic Registrar immediately via switchboard: 7074 0000 then send referral letter attached with investigation test result (IGRA/ Chest x-ray/ Ct chest) Fax: 7117 2998 OR e-mail: health.rahthoracicmedicine@sa.gov.au
  - After hours, Sat, Sun & Public Holiday: Contact on call Thoracic Registrar or medical registrar or TB consultant via switchboard 7074 0000

Inclusions, exclusions and triage categories

Inclusions

- suspected tuberculosis TB:
  - new lung infiltrate
  - positive laboratory result for TB
  - pleural effusion in a patient with TB risk factors
  - granulomatous inflammation on tissue biopsy in a person with TB risk factors
- assessment of TB risk for occupational or medical reasons

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- proven or suspected active pulmonary TB

Category 2 (appointment clinically indicated within 90 days)

- assessment of TB risk for occupational or medical reasons

Category 3 (appointment clinically indicated within 365 days)

- nil

Referral information

For information on referral forms and how to import them, please view general referral information.

Essential referral information (referral may not be accepted for triage without this information)
Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- relevant social history, including identifying if you feel your patient is from a vulnerable population and/or requires a third party to receive correspondence on their behalf
- interpreter requirements
- duration and severity of symptoms
- associated symptoms - dyspnoea, cough, chest pain, weight loss, night sweats
- systemic symptoms
- TB risk factors
  - recent immigrants, refugees or recent travel to endemic areas, particularly Asia, Southeast Asia, Africa, Aboriginal or Torres Strait Islander patients
  - known TB contact
  - human immunodeficiency virus (HIV) positive, acquired immunodeficiency

    - syndrome (AIDS) positive or other immunosuppression
    - alcohol or drug abuse
    - exposure to hospitals or prisons
    - health care worker in TB
- chest x-ray (CXR)
- sputum x3 early morning for Acid-Fast Bacilli (AFB) microscopy and culture
- histology results if tissue (e.g. lymph node) biopsies performed

Additional information to assist triage categorisation

- relevant allied health/diagnostic/imaging reports (including location of company and accession number)
- desired or required start date of work, medication or study

Clinical management advice and resources

Clinical management advice

Seek urgent advice from the Chest Clinic or on-call Thoracic Registrar. The patients with sputum smear positive for Acid-Fast Bacilli (AFB) or suspected to be infectious (signs and symptoms including chronic cough, fever, night sweat, unexplained weight loss, cavitation on chest x-ray/computed tomography (CT)), advise to wear a surgical mask, stay away from work, limit social contacts.

Clinical resources

- National Institute for Health and Care Excellence – Tuberculosis Quality Standard
- Australian Family Physician (RACGP) – Tuberculosis testing

Consumer resources

- SA TB services - 'Tuberculosis FAQ'
- Healthdirect – Tuberculosis (TB)

Key words

Tuberculosis, TB