Review with GP/NP/nurse leader and establish or revise individualised care plan

Respiratory care guide | Te aratohu maimoa hā

Shortness of breath (SOB; also known as dyspnea) assessment tool

Is there an individualised care plan?

Implement care plan

Assess and record the following • Lung sounds: crackles, rhonchi (wheeze heard • Set of readings: temperature, respiration rate, heart with stethoscope), record where it is heard on rate, blood pressure • Oxygen sats – pulse oximeter (if available) • Note change in mental status - delirium? • Is there a diagnosis of COPD, CHF or diabetes? (See 4AT assessment) Physical and functional status Refer to lung sound basics on next page changes (consider ADL assessment) • Cough - productive or non-productive, difficult to • Pain on breathing - chest/cardiac pain • Little or no relief from short-acting bronchodilators • Sputum - amount and colour? Yellow, green, red pus Treatment is needed if one of the following signs or symptoms is present Altered mental state (confusion) • New and worsening cough • Pulse rate > 125 beats per minute • Increased or newly purulent sputum, unable to • Respiratory rate > 30 breaths per minute expectorate? • Oxygen saturation level ≤ 92% • Dyspnoea (difficulty in breathing)/SOB, orthopnoea • Systolic blood pressure < 90 mmHg or diastolic blood New crackles or wheezes heard on chest exam pressure < 60 mmHg Comorbidities, such as cardiac failure, renal or hepatic Temperature < 35°C or > 40°C Monitor observations and review as appropriate Contact GP/NP with acute decline and new onset of symptoms Review advance treatment plan and hospitalisation If hospital admission is recommended, Not for hospitalisation? do the following: Initiate palliative care nursing/supportive measures • Copy advanced directives and care plans for SOB and/or anxiety Discuss with family/whānau/EPOA · Copy medication, medical history, recent nursing and medical assessment and recent labs Is this a worsening of an existing respiratory condition?

Preventative care

- See immunisation guidelines below.
- Review advance treatment plan.
- Consider smoking cessation, healthy diet, physiotherapy referrals, pulmonary rehabilitation, regular exercise as tolerated.

Recommended immunisation guidelines

- All residents should be vaccinated against influenza by March of each year.
- Residents admitted between March and June should be vaccinated, if not already immunised for the current influenza season.
- Those with heart or lung disease may want to consider streptococcus vaccination. Not subsidised and requires private payment.

Palliative care respiratory guidelines

- Psychosocial support provide reassurance and a calm presence for the resident and family/whānau. This helps reduce anxiety, which reduces dyspnoea.
- Breathing control and learned coping strategies:
 - Comprehensive assessment of resident's strategies, to proactively help breathlessness
 - Individual resident care plans are important.
- Decrease the resident's need for exertion during exacerbations.
- Sit resident up and support by pillows.
- Have a cool fan blow on the resident's face.
- Physiotherapy for pulmonary rehabilitation.
- Oral lorazepam or midazolam (SC), or low doses of morphine, can help dyspnoea, but there is no evidence to support the use of nebulised opioids.
- Oxygen must be prescribed and used under the direct supervision of a prescribing health practitioner.
- Oral care mouth breather.

Lung sound basics

- Crackles: (Rales) are fine rattling sounds. These are non-continuous, high-pitched, fine crackles, like the sound of carbonated beverages. These sounds are usually caused by the presence of fluid in the alveoli and bronchioles.
- Wheezes: Wheezes are musical sounds like the high-pitched notes on a clarinet. Wheezes are produced by constricted or partially obstructed airways.

COPD guidelines

	Mild	Moderate	Severe
Typical symptoms	 Few symptoms Breathless on moderate exertion Recurrent chest infections Little or no effect on daily activities 	 Breathless on walking on level ground Increasing limitations of daily living Cough and sputum production Exacerbations requiring oral corticosteroids and/or antibiotics 	 Breathless on minimal exertion Daily activities severely curtailed Experiencing regular sputum production Chronic cough Exacerbations of increasing frequency and severity
Lung function	FEV ₁ 60-80% predicted	FEV ₁ 40–59% predicted	FEV ₁ < 40% predicted

COPD non-pharmaceutical interventions

- Risk reduction check smoking status, support smoking cessation, recommend annual flu vaccine and pneumococcal vaccine according to Immunisation booklet.
- Optimise function encourage regular exercise and physical activity, review nutrition, provide education, develop GP/NP management plan and written COPD action plan and initiate regular reviews.
- Consider comorbidities especially cardiovascular disease, anxiety, depression, lung cancer and osteoporosis.
- Refer to pulmonary rehabilitation for symptomatic patients.
- Consider oxygen therapy, surgery, bronchoscopic intervention, palliative care services and advanced care planning.

COPD pharmaceutical interventions

- Start with short-acting relievers (inhaled medicines) use as needed.
- Short-acting Beta₂ agonist (SABA) or short-acting muscarinic antagonist (SAMA).
- Add long-acting bronchodilators, eg, long-acting muscarinic antagonist (LAMA) or long-acting Beta₂ agonist (LABA). Review need for LAMA/LABA as a fixed-dose combination inhaler.
- Consider adding an anti-inflammatory agent: ICS/LABA and LAMA.
- Check device usage technique and adherence at each visit.



Bibliography | Te rārangi pukapuka

Respiratory care guide

- Bloom AS, Suchindran S, Steinbrink J, et al. 2019. Utility of predictive tools for risk stratification of elderly individuals with all-cause acute respiratory infection. *Infection*. DOI: 10.1007/s15010-019-01299-1
- bpac^{NZ}. 2017. The bpac^{nZ} COPD prescribing tool has been updated. URL: https://bpac.org.nz/2017/docs/copd-update.pdf (accessed 20 June 2019).
- Dosa D. 2005. Should I hospitalize my resident with nursing home-acquired pneumonia? *Journal of the American Medical Directors Association* 6(5): 327–33. DOI: 10.1016/j.jamda.2005.06.005
- Global Initiative for Chronic Obstructive Lung Disease. 2017. GOLD 2017 global strategy for the diagnosis, management, and prevention of COPD. URL: http://goldcopd.org/gold-2017-global-strategy-diagnosis-management-prevention-copd (accessed 20 June 2019).