SYMPTOM MANAGEMENT
FOR PATIENTS IN AGED CARE WITH MILD TO MODERATE COVID-19

BACKGROUND

Around 80% of patients diagnosed with COVID-19 (coronavirus) will have a mild to moderate form of the disease.[1] Patients who are at higher risk of deterioration and severe disease are older, smokers, and have co-morbidities such as diabetes, hypertension, cardiovascular disease and chronic obstructive pulmonary disease.[1,2]

Some of the most common symptoms reported include fever, cough, breathlessness, loss of smell and taste, sore throat, nausea, nasal congestion, and headache.[2] Around 10% of patients diagnosed with COVID-19 will remain ill for more than three weeks, and some for months.[3] Therefore, symptomatic treatment for patients with mild to moderate COVID-19 is important and can be treated in the community setting.

These four fact sheets focus on the symptomatic treatment of:

- cough
- breathlessness
- fever
- sore throat.

MANAGEMENT OF COUGH IN PATIENTS WITH MILD TO MODERATE COVID-19

Around 70-80% of patients diagnosed with COVID-19 will develop a cough.[4] Residents with mild COVID-19 can be managed in the community setting given that staff are able to monitor their condition and recognise the signs of deterioration that may need medical attention.[5] Residents that are of an increased age, frail, immunocompromised, or have a reduced ability to cough and/or expel secretions have an increased likelihood of developing pneumonia.[6] The National Institute for Health and Care Excellence (NICE) has created guidelines for the management of residents with suspected or confirmed pneumonia.[7]

Non-pharmacological management can include:

- adequate hydration – encourage small sips of water throughout the day
- a teaspoon of honey may be soothing
- smoking cessation (if applicable)
- encourage residents to avoid lying on their back
- remind residents of respiratory hygiene (cover mouth when coughing, proper hand hygiene, etc)[6,8,9]

Short-term opioids may be used if the symptoms of the cough are bothersome or distressing to the resident[6] and due to the likelihood of concurrent treatment of breathlessness, opioids may be used to treat both of these COVID-19 symptoms.[4] Consider the potential for dependence and possible side effects (e.g. nausea, vomiting, constipation, confusion and delirium). Residents may require laxatives or antiemetics.

Drug	Dose
Pholcodine	Pholcodine linctus (1mg/1mL): 5mL-15mL 3-4 times daily. Maximum 60mL/24 hours
Codeine	Codeine linctus (15m/5mL): 5mL-10mL every 4 hours as required. Maximum 4 doses/24 hours Codeine phosphate tablets (30mg): 1-2 tablets every 4 hours as needed. Maximum 4 doses/24 hours If needed, dose can be increased to 30mg-60mg 4 times daily. Maximum 240mg/24 hours
Morphine (oral)	2.5mg-5mg every 4 hours when required. If needed, increase dose to 5mg-10mg every 4 hours as required

Table 1: Pharmacological management of cough in COVID-19[6,10]

MANAGEMENT OF BREATHLESSNESS IN PATIENTS WITH MILD TO MODERATE COVID-19

It is common for patients diagnosed with COVID-19 to experience some degree of breathlessness, affecting 5%-65% of patients.[4] Breathlessness may lead to feelings of anxiety, which could worsen breathlessness further.[6] Non-pharmacological strategies such as relaxation and breathing techniques and changes in body positioning may assist in easing anxiety, in turn improving breathlessness.

Assessment of breathlessness

Pulse oximeters may be beneficial in monitoring respiratory symptoms[3] for residents who are identified as having a higher risk of deterioration (e.g. co-morbidities such as diabetes, cardiovascular disease, COPD, asthma and hypertension).[6,13,14] In some cases, patients who develop pneumonia from COVID-19 can experience 'silent hypoxia' with no observable breathing difficulties. Due to the different mechanism by which COVID-19 affects the lungs, the initial signs of infection can be difficult to detect in this asymptomatic stage. When patients do start to become symptomatic, their infection has progressed to moderate to severe stages.[15]

As silent hypoxia is linked to poorer outcomes, the use of pulse oximeters in this patient population in the residential aged care setting should be considered in order to allow for earlier diagnosis and treatment of pneumonia.[16] **Table 3** shows the assessment pathway for adults with COVID-19 using pulse oximetry, as developed by the National Health Service (NHS).[14]

Other potential causes	Identify additional potential reversible causes of breathlessness (e.g. pulmonary oedema, asthma and COPD exacerbations)
Breathing techniques	Techniques can include controlled breathing, pursed lip breathing, diaphragmatic breathing (or belly breathing)
Relaxation techniques	Techniques can include mindfulness, visualisation, progressive muscle relaxation and the APPLE technique (Acknowledge, Pause, Pull back, Let go and Explore)
Temperature and air circulation	Encourage patient to keep the room cool and open windows or doors to increase air circulation
Oxygen	A trial of oxygen therapy can be considered if necessary, and monitor for any signs of improvement
Changes in body positioning	There are several positions that may assist in easing breathlessness (**Figure 1**)[9]

Table 2: Non-pharmacological strategies to ease breathlessness[6,9,11,12]

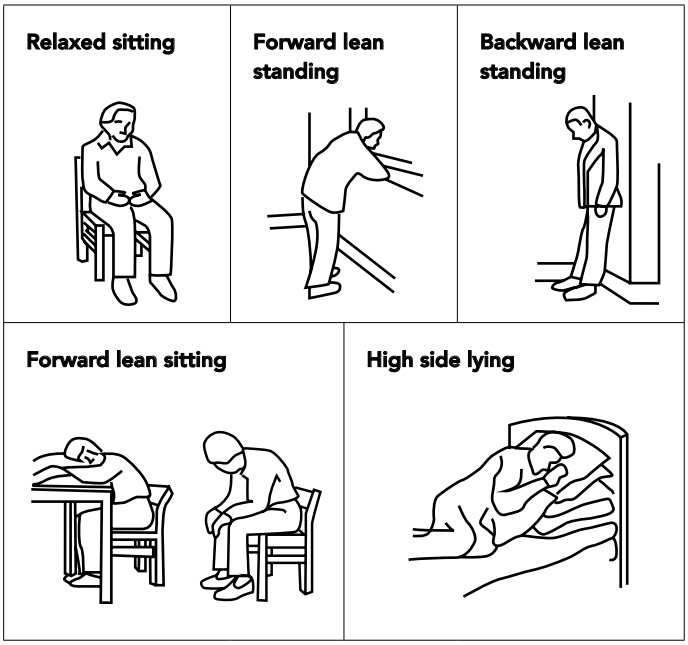

Figure 1: Body positions to ease breathlessness

Pharmacological management

For residents who have moderate to severe breathlessness or who find it distressing, consider pharmacological treatment.[6]

- *For opioid-naïve residents, consider:*
  Morphine sulfate (immediate release) 2.5mg-5mg every 2-4 hours when necessary OR
  Morphine sulfate (controlled release) 5mg twice daily when necessary (maximum 30mg daily).
- *For residents already taking opioids, consider:*
  Morphine sulfate (immediate release) 5mg-10mg every 2-4 hours when necessary OR
  One-twelfth of their current daily dose of opioids (whichever is greater).
- *Consider adding a benzodiazepine if needed:*
  Lorazepam 0.5mg when necessary (maximum 4mg daily) for breathlessness and anxiety.
  Reduce this dose to 0.25mg-0.5mg in older patients (maximum 2mg daily).
  Midazolam 2.5mg-5mg subcutaneously when necessary for agitation or distress caused by breathlessness.
- Continue non-pharmacological strategies with the use of pharmacological treatment.
- Consider the use of regular laxatives and PRN antiemetics.

	Mild	Moderate	Severe
SaO_2	95% or higher	93-94%	92% or lower
RR	<20	21-24	>25
HR	<90	91-130	>131
	Consider monitoring	Consider hospital admission/ assessment	Consider urgent admission

Table 3: Assessment pathway for COVID-19 using pulse oximetry

MANAGEMENT OF FEVER IN PATIENTS WITH MILD TO MODERATE COVID-19

Patients diagnosed with COVID-19 will most commonly develop a fever five days after exposure.[6]

Non-pharmacological strategies to manage fever include:

- keep hydrated – aim to drink two litres of water a day
- avoid drinking alcohol, as this will exacerbate dehydration
- wear comfortable, loose clothing
- ensure the room is not too warm.

In addition to non-pharmacological strategies, pharmacological management can also be used to treat fever. There have been concerns regarding the use of NSAIDs and worsening COVID-19 symptoms. The World Health Organization (WHO) initially released a statement against the use of NSAIDs in COVID-19, but this has since been retracted after a systematic review was conducted.[17] There is currently no evidence to suggest that NSAIDs worsen COVID-19 symptoms.[18, 19] However, it is still necessary to consider the precautions and contraindications to the use of NSAIDs in certain patient populations (e.g. pre-existing renal impairment, history of gastrointestinal bleeding, heart failure, hypertension, etc). Patients who are already taking NSAIDs for pre-existing chronic conditions should continue treatment.[20, 21]

Medication	Dosage
Paracetamol	Adults: 0.5-1g every 4-6 hours (maximum 60mg/ kg/day)
Ibuprofen	Adults: 400mg three times daily when necessary

Table 4: Pharmacological management of fever in COVID-19[6]

MANAGEMENT OF SORE THROAT IN PATIENTS WITH MILD TO MODERATE COVID-19

Sore throat is a common symptom of COVID-19 and can be easily treated with non-pharmacological and pharmacological options.

Non-pharmacological strategies to treat a sore throat:

- keep hydrated – drink plenty of water
- eat cool and soft foods to soothe the throat (e.g. ice cream)
- suck on ice cubes, icy poles
- gargle warm, salty water
- smoking cessation (if applicable)
- a teaspoon of honey may be soothing.[22]

Alongside these non-pharmacological strategies, pharmacological options can also be used.[23,24] Gargles, sprays and lozenges for sore throat often combine antiseptics, anesthetics and anti-inflammatories.

Medication	Dosage
Paracetamol	Adults: 0.5-1g every 4-6 hours (maximum 60mg/kg/day)
Ibuprofen	Adults: 400mg three times daily when necessary
Medicated lozenges (e.g. Strepsils, Soothers, Difflam, Betadine, etc)	Refer to individual packaging for dosing directions
Povidone-iodine (e.g. Betadine Sore Throat Gargle)	Gargle 15mL of liquid for 30 seconds and then spit out (do not swallow) every 3-4 hours when necessary
Benzydamine (e.g. Difflam Sore Throat Spray)	Spray 2-4 times onto sore/ inflamed area of the throat and swallow gently, every 1.5-3 hours when necessary

Table 5: Pharmacological management of sore throat in COVID-19

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