MANAGING SYMPTOMS AT HOME TO ENSURE PATIENT COMFORT

*Note: This guide addresses symptom management only, not the acute pharmacological management of Covid19 infections.

The most common distressing symptoms that patients could experience are fever, breathlessness, anxiety, and agitation. If patients are being cared for at home, the families need to be educated on how to manage these symptoms in the home environment, which will include pharmacological and non-pharmacological management of these symptoms.

The family will need support and advice from health care professionals; a hospice or home care service can provide this advice or a general practitioner. In some cases, health care professionals who have recovered from COVID-19 themselves are available to go into the home to provide hands on assistance or otherwise, the home care service can assist when wearing full PPE (Hospice, HBC organisation, GP) may provide telephonic advice. **Section 2 of these guidelines are aimed at families and primary caregivers and describes advice for family members/primary caregivers providing care in the home environment during COVID-19.**

### NON-PHARMACOLOGICAL INTERVENTIONS

<table>
<thead>
<tr>
<th>Fever</th>
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<tr>
<td>Remove excess bedding/cover</td>
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<td>Tepid sponging or cool cloth to forehead and back of neck</td>
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<th>Shortness of breath</th>
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<td>Advise patients on breathing exercises and optimal positioning (<a href="https://www.youtube.com/watch?v=YmBanu2UHKk">https://www.youtube.com/watch?v=YmBanu2UHKk</a>): relax shoulders, let them place a hand on their stomach and breathe from their abdomen to their chest; focus on outbreath by controlling it with their hand; ask the patient to lean forward and to concentrate on the outbreath by pursing their lips and slowly breathing out; consider nursing the patient in a prone position for a part of the day if not contra-indicated or unnecessarily uncomfortable; stay calm with the patient and distract the patient with reassuring conversation; provide as much emotional and spiritual care as possible under the circumstances. See attached ‘What to Say’ guide for useful phrases when providing comfort.</td>
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<tr>
<td>Self awake proning has been shown to be helpful in those who are able to turn (<a href="https://youtu.be/f-AkBQ9CvGA">https://youtu.be/f-AkBQ9CvGA</a>)</td>
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<th>Agitation/delirium:</th>
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<td>Consider polypharmacy - rationalize medication and discontinue all non-essential drugs;</td>
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<td>Address factors that can agitate a patient (full bladders, constipation, noise, thirst, pain);</td>
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<tr>
<td>Nursing care: calm communication; provide patient with sips of water; check if mouth care is required; keep the patient comfortable according to standard nursing care.</td>
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In the home environment there are three main ways that medication can be administered to the patient:

1. The oral route is the easiest and preferred route if the patient can swallow, and the family can also administer.

2. Continuous Subcutaneous medication via a syringe driver, if patient unable to swallow. It needs to be commenced by a doctor or nurse, and the family needs to be educated on how to monitor the machine. Syringe drivers are currently in short supply in the community.

3. Subcutaneous doses of medication given as a bolus via a butterfly needle. The butterfly needle can remain in-situ for up to 10 days, as long as the area of insertion is checked daily. It needs to be commenced and managed by a doctor or nurse. A family member could be trained in how to give bolus doses periodically, provided they receive the appropriate training and demonstrate competency.

### 1. Oral medication

Below are the starting doses for each symptom; COVID-19 symptoms might advance rapidly, needing dose escalation.

#### Fever
- Paracetamol 1000mg 6hrly PO PRN OR
  - If patient is unable to swallow: Paracetamol 500-1000mg PR 6hrly (available as paediatric 250mg suppositories).

#### Anxiety
- Preferred: Lorazepam 1mg-2mg s/l q2h prn until patient has settled then 6-12 hourly PRN OR
  - Alprazolam 0.5-1mg 8hrly prn OR
  - Diazepam 2.5mg-5mg PO until settled, then 12 hourly OR
  - Clonazepam 0.5mg po 8hrly prn

#### Breathlessness (dyspnoea)

**Bronchodilator therapy** if appropriate. Multi-dose inhalers preferred to nebulisers to minimise aerosolization of virus.

**Low dose opioids** are the mainstay in managing the symptom of breathlessness
- Morphine syrup (Mist Morphine) 2.5-5mg PO hourly until symptoms settle and then 4hrly ongoing. Doses as low as 1mg has been shown to be effective.
- Alternative: low dose fentanyl, starting at 12mcg/h every 72hours (note: only starts working after 8-12hours – start with bolus morphine)
- Scripting oral morphine:
  - The amount of morphine syrup will vary depending on the strength/concentration at which it is mixed: 5mg/5mL (give 1-5mL), 10mg/5mL (give 0.5-2.5ml).
  - Specify concentration and volume to be administered and dispensed e.g. “Mist Morphine 10mg/5ml: give 0.5 ml PO 4 hourly. Dose can be increased to a maximum of 2.5ml PO 4 hourly. Issue 100ml (hundred millilitres)”.
- Possible side effects:
  - **Nausea**: metoclopramide 10mg 8h po
**Constipation:** When patients are more bed bound and are taking any form of pain medication including panado and morphine, constipation is one of the unfortunate side effects that does not resolve and requires constant monitoring and management. Patients should be having a bowel movement every 3 days at least, even if **ONLY** taking in fluids and softer foods. The result of constipation can be increased pain, nausea and confusion with abdominal discomfort. It is, therefore, standard practice to **ALWAYS** prescribe a stool softener with a stimulant laxative to be taken daily, when commencing a patient on morphine:

- **Stool softener:** lactulose 15ml bd po/30mg d po, Sorbitol 15ml bd po/30mg d po
- **Stimulant laxative:** Senna 2-4 tabs nocte po, Bisacodyl 2 tabs nocte po

  * If a patient is unable to swallow/if a patient has had no bowel movement after 3-4 days suppositories can be used to help stimulate the bowels: Glycerine x1 suppository per rectum (softener) with Dulcolax x1 (stimulant) suppository per rectum (given one after the other).

  * Patients can also be encouraged to increase water intake if possible, add some fruit to their diet such as stewed prunes, and where possible try to mobilize in and out of bed to help stimulate the bowels.

  * If the patient is dying, their oral intake will naturally decrease, and they will naturally need less laxation and so this will decrease the need for the laxatives during the dying phase.

**Home oxygen** is the main supportive treatment of Covid19 when hypoxia (sats <95%) is present. In and off itself, it will not improve the sensation of breathlessness unless hypoxia is severe.

  Escalate according to need

  - **Nasal cannula administration** is first line (2-6L/min).
  - **Face mask** 40% (6-8L/min)
  - **Reservoir mask** (flow to fill reservoir bag)

In the unresponsive dying patient, titrate oxygen down with intention to stop, while still managing breathlessness.

  Home oxygen is available privately through medical aid schemes and in many of the frail care homes and from some hospices (PMB, no blood gasses needed, only saturation measurement). However, in poorer resourced areas obtaining home oxygen will be a challenge.

**Agitation or delirium**

Use medication only if the patient is distressed, hallucinating or danger to self or others.

- **Haloperidol** 0.5mg po q1h until settled; then q4h prn (or SC bolus) (preferred; often unavailable) OR
- **Risperidone** 0.25mg-0.5mg po bd OR
- **Olanzapine** 2.5mg-5mg po bd (or SC bolus) OR
- **Quetiapine** 12.5mg-50mg po bd OR
- **Ziprasidone** 10mg IMI
2. Continuous Subcutaneous infusion if patients are unable to swallow

Using an ambulatory syringe pump (syringe driver) to deliver a continuous subcutaneous infusion (CSCI) of medication is a very practical and safe way of administering drugs in the palliative care home setting when the patient is unable to swallow oral medication. These battery-operated machines are set up in the home environment by a community GP or hospice nursing sister who are trained in how to operate and monitor them in the home environment.

Before commencing the syringe driver, a stat dose of medication would need to be given to begin managing the symptoms while the syringe driver takes effect14:

- **Dyspnoea**: Morphine Sulphate 1-2mg SC stat
- **Anxiety**: Midazolam 2.5mg-5mg SC stat
- **Agitation**: Haloperidol 2.5mg- 5mg SC stat
- **Nausea**: Metoclopramide 10mg SC stat

Then for a 24-hour subcutaneous infusion, using a syringe driver at home, combine the following for symptom control:

- Morphine 15mg with
- Metoclopramide 30mg (to counter any nausea due to morphine) with
- Midazolam 10-15mg

*Haloperidol can be used for nausea as well as restlessness and can replace metoclopramide for nausea, if available.*

Note:
- Follow instructions of specific device
- Reassess and adjust rate if the patient is not comfortable or give additional breakthrough doses (1- 2.5mg morphine and 2.5mg midazolam stat SC)
- If patient is already on morphine for pain control, increase the total 24-hour dose by 25% to add additional dyspnoea benefit
- In the elderly start at a lower dose and in those with complete renal failure PRN medication may be indicated.

- **Alternatives to morphine if available** - Fentanyl transdermal patch 12mcg-25mcg/h change every 72 hours. Dose calculations need to be carefully made as per SAMF, remembering that Fentanyl is 100-150 times the potency of oral morphine. It may take up to 8-12 hours to be effective which requires additional subcutaneous Morphine boluses to be given 4hrly for the first 6-12 hours.
3. **Subcutaneous bolus administration route when no syringe driver available and patients are unable to swallow**

If a patient is unable to swallow and no syringe driver is available, they may need to receive their medication via a subcutaneous butterfly needle, left in place, to give bolus doses of medication. In this case it would be best to contact the clinic Dr or hospice nurse if available to commence these medications at home and assess if there is a family member able to assist with the administration of these medicines.

Below are the starting doses for each symptom; COVID-19 symptoms might advance rapidly, needing dose escalation.

Subcutaneous bolus doses of medication are given over 30s-1min (depending on volume administered) via an indwelling butterfly/cannula and then flushed with 0.5-1ml of 0.9% NaCl after each use.

### Bolus dosing of medication to control symptoms

**Dyspnoea**
- Morphine 1-2mg SC q1h until symptoms are controlled; once controlled switch to regular 4-hourly dosing (typically 1.0 - 2.5mg 4hrly SC) increase dose by 25% once per 24 hours, if symptoms are not controlled.

**Agitation/restlessness**
- Haloperidol 2.5mg over 24hrs via CSCI/SC, doses may need to be repeated according to symptoms.

**Anxiety**
- Midazolam 2.5-5mg SC every hour until symptoms resolved/patient is settled, regular dosing may be required for ongoing severe dyspnoea causing anxiety/panic.

**Nausea and vomiting**
- Metoclopramide 10mg 8hrly SC or PRN, depending on symptom assessment

**Note:**
- Alternatives to morphine if available - Fentanyl patch 12mcg-25mcg/h change patch every 72 hours. Fentanyl patches may take up to 6-12 hours to be effective which requires additional subcutaneous Morphine boluses to be given 4hrly for the first 6-12hours.
- One can also slowly drip mist morphine into the side of the mouth as a last resort, if there is no-one available to commence a syringe driver or give bolus doses of medication.
- Morphine IMI injections are not appropriate in this setting! Subcutaneous infusions or injections are less painful and more steadily and reliably absorbed.

**Equipment required for subcutaneous therapy**
- Ambulatory syringe pumps (syringe drivers) OR infusion pumps AND/OR
- Butterfly needles (23G) / blue yellow IV cannula (Jelcos®) (22G or 24G)
- Short IV infusion sets (perfusor lines) for syringe pump use (can use butterfly alone if unavailable)
• Alcohol cleaning swabs (Webcols™)
• Dressing tape (Micropore™) and (if available) see-through dressing such as Hydrofilm to secure butterfly needle
• 60ml, 20ml, 10ml and 3ml syringes (the syringe size used for the infusion will depend on the type of syringe-driver pump being used, as well as the volume needing to be infused)
• Normal Saline unit dose vials (UDVs) for flushing lines
• Nasal cannula/prongs OR simple oxygen face masks (if oxygen in use)

Securing subcutaneous access:

1. Obtain necessary supplies.
2. Ensure appropriate hygiene and PPE.
3. Explain the procedure to the patient.
4. Appropriate sites of placement: infraclavicular, lower abdominal wall, anterior thighs or outer aspect of the upper arm. If the patient is confused, the upper back area over the scapula can also work.
5. The site should be: easily accessible, free of lesions, away from large vessels, joints and bones, away from oedematous tissue that may alter medication/ fluid absorption.
6. Clean skin with an alcohol swab for 15 seconds and allow skin to dry.
7. Remove protective shield from needle.
8. Using thumb and index finger to create a roll of tissue of approximately 2.5 cm, bunch the skin around selected insertion site.
9. Insert the entire butterfly needle (23G) or yellow Jelco (24G), bevel side up, under the skin at an angle of 45 degrees.
10. Jelco: remove the needle and attach a short line; secure your cannula in place with Micropore.
12. Attach a 3ml syringe and flush the tubing with normal saline.
13. Cover the insertion site, hub and wings with a transparent moisture-responsive dressing.
## Drug conversion tables

<table>
<thead>
<tr>
<th>Drug</th>
<th>Conversion ratio from oral morphine</th>
<th>Equianalgesic dose to 30mg of oral morphine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mist Morphine (Morphine syrup)</td>
<td>1:1</td>
<td>30mg</td>
</tr>
<tr>
<td>Morphine sulphate (SC)</td>
<td>2:1</td>
<td>15 mg</td>
</tr>
<tr>
<td>Morphine sulphate (IV)</td>
<td>3:1</td>
<td>10 mg</td>
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### Example:
To convert oral Mist Morphine 60mg in 24 hours to subcutaneous Morphine Sulphate dose, **divide 24-hour oral dose by 2 to give subcutaneous dose** of 30mg over 24hours. If the patient is in renal failure, use lower dosages.

Management of **other commonly experienced symptoms** (pain; nausea and vomiting) See HPCA Clinical guideline 15

### End-of-Life Signs and Symptoms: Normalizing Signs of Death

Patients can be defined as being terminal when there is irreversible decline in functional status prior to death. It is essential during this time to ensure the ethical management of the dying phase and to minimise distress for the patient, family and fellow health care professionals by using a bio-psycho-social and spiritual approach to care.

### General measures:

**Communication** is at the centre of care. The following aspects should be addressed:

- Honest, direct, compassionate and culturally sensitive information about the prognosis (see Conversation guide in PALPRAC guidelines, link provided above).
- Assessment of the patient and family resources and needs, especially spiritual needs.
- Provide appropriate care in accordance with patient preferences and facility/home resources to provide care.
- Compassionate information about symptoms that might develop and how to manage them (see the information leaflet for family and primary care givers under section 2: End of Life: Changes to expect).
- Discontinue all non-essential, non-beneficial procedures and medication, e.g. 4-hourly blood pressure measurements and vitamin tablets.
- Ensure medications are prescribed for symptom management and prescribe, when needed, medication to pre-empt common symptoms during the terminal phase using the appropriate route:
  - **Pain:** If the patient is on Morphine already, then continue; if the patient is unable to swallow, convert to subcutaneous Morphine Sulphate by dividing the total 24-hour dose by 2 and administer in divided regular bolus doses or as a continuous infusion (see detailed notes above on subcutaneous medication for symptom control).
  - **Nausea and vomiting:** Metoclopramide 10mg 8hrly SC/PO or Metoclopramide 30mg over 24hrs via CSCI
  - **Respiratory secretions:** Hyoscine Butylbromide 20-40mg SC every 4 hours or via CSCI over 24hrs.
Agitation/restlessness/delirium: a) Lorazepam 1-2mg 8hrly/PRN via SL/SC OR b) Diazepam 2.5mg-5mg PO 12 hrly OR c) Midazolam 5mg every hour SC until symptoms settled AND d) Haloperidol 2.5mg added to CSCI over 24 hours.

- Feeding and hydration - Advise the family that in the last few days/weeks food and fluids do not improve quality of life, survival or symptom burden at the end of life and should not be given as routine management. Rather offer soft food if the patient wants this and sips of water if the patient is able to swallow. If the patient is not able to swallow moisten the lips and mouth with sips of water or ice chips and use petroleum jelly on the lips.

- Nursing care: encourage position change every 4-6 hours to prevent discomfort in areas of pressure. Gentle bed washing care as required. Oral care - remove secretions using a soft moist cloth or mouth swabs if available.

- These principles are appropriate whether in hospital, in a care facility or at home.

Social issues:
Patients may have social issues/concerns that could impact their care at home and their end of life journey if left unsupported. These could take the form of:

- Social grant issues
- Guardianship of children
- Wills not yet finalized
- Substance abuse in the household
- Conflicted relationships
- Limited family support.
- Power of Attorney for financial matters
- Stigmatization (Please see appendix C: Acknowledging the impact of stigma during the COVID-19 pandemic)

These need to be explored with the patient so there can be an attempt to resolve/improve them while there is still time to do so. Patients should be referred to social workers in the community or linked to the hospitals/clinics who can try and assist patients and families.

In the resources section below there is a list of contact numbers that families can access for additional support.

Patients must be encouraged to:
Acknowledge their experience with COVID-19, and the impact it is having on their health. Seek counselling and support where they can for extra support through a difficult time.

Spiritual and Emotional distress:
Many families have existing spiritual support structures such as religious/faith community leaders, family members or friends who play a mentorship role or who share religious/spiritual beliefs or outlooks.

Local resources such as hospices and primary health care or social service facilities may be able to provide access to spiritual and psychosocial counselling for patients and families.

Families should be encouraged to seek support that is culturally acceptable to them, this may be restricted to their existing faith-based support structures.

In the context of COVID-19 infection control and isolation measures will present additional obstacles to accessing support BUT telephonic or online counselling can be accessed. Simple practical options such as having a conversation outdoors with appropriate social
distancing for patients who are able to manage that or for family members. 

Medical care providers can refer to:
COVID-19 Palliative Care Counsellor’s Database by emailing
Welly den Hollander (secretary: S A Oncology and Social Workers’ Forum)
wellydenholl@gmail.com
+27-798726408

Link to PALPRAC webinar on Providing Spiritual support during COVID-19
https://vimeo.com/412017507/0f4b8169e2