

Guidance on the management of symptomatic adults dying from COVID-19

Important principles

- 1. Exclude reversible causes.** An experienced clinician needs to exclude reversible causes before the diagnosis of dying is made. Consider hospital admission for patients with respiratory distress of unknown cause.
- 2. Continue standard palliative care prescribing and principles of holistic individualised care.** Most people who die during the pandemic will have conditions other than COVID-19. Many people dying from / with COVID-19 have mild respiratory symptoms requiring 'standard' palliative care prescribing using familiar routes of syringe drivers and subcutaneous stat injections. See the prescribing guidance attached to the community medicine administration record (MAR) chart that can be printed from the CCG End of Life Care template.
- 3. As far as possible, prescribe limited amounts of anticipatory medication to selected patients.** Widespread prescribing of Just in Case medicines risks depleting community pharmacies of stock. Equally, reluctance to prescribe these medicines may result in them not being available when needed urgently. There is no easy solution to this dilemma: care homes are not able to hold a stock without a dispensing licence. The list of pharmacies in the CCG area stocking End of Life medicines is at <https://www.cambridgeshireandpeterboroughccg.nhs.uk/health-professionals/prescribing-information/controlled-drugs-and-palliative-care/palliative-care-prescribing/>
- 4. See the CCG Community End of Life Care in COVID-19 flowchart** <http://www.cambslmc.org/localadvice> This outlines the processes during the pandemic for ensuring that ReSPECT / DNACPR form, medicines, community MAR chart, needles and syringes etc. are in place in the patient's home or care home.

The more difficult dying phase in a minority of COVID-19 patients

While it appears that the dying phase for most people with COVID-19 is akin to that in other conditions, a minority have a more difficult dying phase, with Type 1 Respiratory Failure from Acute Respiratory Distress Syndrome and / or systemic shock from a 'cytokine storm' that resembles bacterial septic shock. For these patients, common terminal symptoms are: pyrexia, rigors, severe dyspnoea, cough, delirium and agitation. These symptoms can develop rapidly and can be very distressing: rapid access to medicines is vital and may involve larger doses than in 'standard' palliative care practice.

Medication rationale

- As nursing and medical staffing levels may be lower over the coming weeks of the pandemic, the aim is to provide effective symptom control without relying on frequent medication administration.
- The severe terminal anxiety and breathlessness that a minority of COVID-19 patients experience may require higher doses of sedative medicines than in 'standard' palliative care practice.

Medication options

- The medicines most likely to provide effective symptom control are: antipyretics for rigors and delirium, opioids for dyspnoea and cough, benzodiazepines for agitation, and antipsychotics for delirium and agitation.
- The rapid onset of severe symptoms (and possible shortage of syringe drivers should the pandemic become severe) means that stat doses of subcutaneous medicines may result in faster and better symptom relief.

Medication route

- If possible, Community Nurses will use a subcutaneous SafT cannula or butterfly needle so that medicines can be administered without multiple injections. These can be left in place for several days.
- If the oral route is not possible in the dying phase, **use the subcutaneous (SC) route wherever possible.**
- Medicine absorption is less reliable via sublingual (SL) and buccal (BUC) routes: only use if SC route not possible.
- SL, BUC and rectal routes are associated with a higher risk of viral transmission.
- Lorazepam tablets can be given SL (Genus brand preferred).
- The buccal preparation of midazolam has limited availability: for logistical ease we suggest use the injectable form.
- *Injectable forms* of morphine, oxycodone, midazolam, glycopyrronium and levomepromazine can be given SL.

Pharmacokinetic considerations

- Morphine, oxycodone and midazolam are effective for around 4 hours after SC, SL and BUC administration.

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- Levomepromazine is a sedating antipsychotic with a duration of action between 12 and 24 hours: a single dose of 25 mg SC will normally give significant anxiolysis and sedation within 60 minutes.
- A combination of midazolam, morphine and levomepromazine may therefore provide adequate symptom control for some patients for 18 to 24 hours from a single SC administration.
- Absorption of the *injectable forms* of morphine, oxycodone, midazolam and levomepromazine is thought to be similar via SC, SL and BUC routes, but can be less reliable: use similar doses initially. Use a syringe to administer.
- When converting from oral to SC morphine or oxycodone, remember to halve the dose.
- If the patient is already taking morphine, the 4-hourly prn dose = 1/6th of current 24-hour total morphine dose.
- As suggested below, hourly doses may be needed in the acute dying phase to ensure rapid symptom control
- Avoid starting fentanyl and buprenorphine patches in the acute dying phase due to slow onset of action (>12 hours)
- Pyrexia exacerbates agitation and delirium. While NSAIDs are best avoided in acute COVID-19, they are considered to be safe and preferable to paracetamol in the end-of-life phase as they have a longer duration of action.
- Oxygen is rarely of benefit in the acute dying phase: opioids and sedatives are usually more effective for management of symptoms in this context.

Pharmacological Symptom Control for Patients Dying from Suspected or Confirmed COVID-19

An experienced clinician has decided that the person is imminently dying from COVID-19

If symptomatic from temperature > 37.5 C, give antipyretic (naproxen 500mg b.d. or paracetamol 1g q.d.s.) orally. A tepid compress will also help. Fans may encourage viral dispersion so are best avoided

If the patient is ***dying and severely distressed*** by shortness of breath and / or agitated give together stat:

- Morphine 2.5 to 5 mg SC or SL (or Oxycodone 1.25-2.5mg SC or SL).** Higher dose if not opioid naïve.
- Midazolam 2.5 to 5 mg SC or SL (or Lorazepam 1 mg SL)**
- Levomepromazine 12.5 to 25 mg SC or SL (or Haloperidol 3 mg SC)**

Some patients dying from COVID-19 may need the higher of these initial doses to achieve adequate relief of breathlessness and appropriate sedation. Lower doses may be more appropriate for the frail elderly.

Prescribe the following p.r.n. medicines, *with a low threshold for dose escalation if needed*:

Shortness of breath: **Morphine 2.5 to 5 mg SC or SL hourly prn.** Or Oxycodone 2.5mg SC or SL hourly prn

Agitation / panic: **Midazolam 2.5 to 5 mg SC or SL hourly prn (max 80mg/24hrs).**

Or Lorazepam 1mg sublingual 2-hourly prn (max 4mg/24hrs).

Agitation / delirium: **Levomepromazine 12.5 to 25 mg SC or SL hourly prn (max 250 mg/24 hrs)**

Or Haloperidol 1.5 to 3 mg SC hourly prn (max 15mg/24hrs)

Respiratory secretions: **Glycopyrronium 400 micrograms SC or SL hourly prn (max 1.2mg/24hrs).**

Or Atropine 1% eye drops, 2 to 4 drops SL hourly prn.

If you think it to be appropriate, there may be lay person or clinical family member who might be safe and willing to administer medicines, either SC or SL. They will need careful selection, appropriate training and ongoing support, including phoning 111 option 4 for rapid advice from a healthcare professional before / after administering medicines. A one-page advice sheet for family members giving medication is at: <http://www.cambslmc.org/localadvice>

If you need advice, contact Arthur Rank Hospice on 01223 675900 or Thorpe Hall Hospice on 01733 225900. Advice from a Palliative Care specialist nurse or Consultant is available 24/7: they will be pleased to help.