COVID-19: Care of the dying patient when UNABLE to obtain a syringe driver – injectable alternatives

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At the end of life when the oral route is lost **effective management of symptoms is best achieved using a syringe driver** to deliver a continuous low dose of medication that can be easily titrated. This guidance provides **injectable medication** options for care of a patient dying with COVID-19 **only when a syringe driver is unavailable**. Please see the Kirkwood Toolkit for management of end of life symptoms when a syringe driver is available. We have also provided guidance on the use of non-injectable medication if necessary, but it should be noted that repeat administration of oromucosal medication may pose an additional risk to healthcare professionals.

Anecdotal evidence from Europe and from our respiratory colleagues locally suggests that the main symptoms experienced by COVID patients at end of life are breathlessness and panic/agitation/restlessness. The ideal medication for the dying COVID-19 patient should be one which is parenteral and treats all of these symptoms. In the absence of a syringe driver, long acting medications are preferable to avoid leaving patients symptomatic and reduce the close proximity of healthcare staff. Many of the medications we would normally give at end of life are short acting (hence the requirement for a syringe driver) **and these can still be given**, but we have provided long acting options in this less than ideal situation.

We have included a flow chart for clinicians to use for the care of patients with COVID-19 symptoms **where the aim is for a comfortable death**.

Breathlessness and restlessness

Usual SC of choice would be midazolam, and this can still be used PRN at a dose of 2.5-10mg but is short acting.

IF SYRINGE DRIVER UNAVAILABLE:

(1) PHENOBARBITONE (PHENOBARBITAL) 120-200MG IM/IV PRN (available as 200mg/1ml OR 60mg/ml)

- Unlicensed for this indication, but licensed in epilepsy
- Usually reserved for cases of intractable distress at the end of life despite first line measures
- Is sedative, and can cause respiratory depression in high doses
- Cannot be administered SC due to viscosity and dilution requirements
- Long acting when administered PRN – either IM or as a slow IV injection
- Can be given undiluted as IM injection, for IV use - needs dilution to 10 times volume, given over 2 minutes (WFI or 0.9% saline)
- Please see flowchart for dosing intervals. Loading doses are typically required for symptomatic benefit, but can accumulate thereafter with a longer duration of action
- Maximum dose 1200mg/24hrs

(2) IF PHENOBARBITONE UNAVAILABLE – please treat with levomepromazine 25-50mg SC as per agitation guidance overleaf, alongside PRN opioids and/or midazolam for breathlessness if needed. Please note SC opioids and midazolam are short acting, and may result in breakthrough symptoms necessitating frequent use (with multiple contacts with healthcare professionals)

Please speak to Kirkwood Hospice for further advice at any time or if symptoms persist

IV lorazepam may need to be considered in an inpatient setting, but this is not without caution and further discussion is advised.

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Terminal Agitation

This guidance is for management of delirium and agitation in a person who is in the last hours to days of life where the aim is for a comfortable death.

IF SYRINGE DRIVER UNAVAILABLE:

(1) LEVOMEPROMAZINE 25-50mg SC PRN

- Given its long half-life and duration of action, can be administered in OD-BD regular dosing if required
- Maximum dose 300mg/24hrs
- Consider lower starting doses in renal failure

(2) PHENOBARBITONE (PHENOBARBITAL) 120-200MG IM/IV PRN

- Please see guidance on page 1

(3) HALOPERIDOL 3-5mg SC PRN

- Given its long half-life and duration of action, can be administered in OD regular dose if required
- Maximum dose 10mg/24hrs
- Consider lower starting doses in renal failure

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Secretions

Please see Kirkwood Toolkit guidance MD165 End of life management of secretions for alternatives to hyoscine butylbromide via syringe driver

Pain

At the end of life, opioids are often first line for treatment of pain. Patients whose pain has been well managed on alternatives (e.g. gabapentin) may need opioid alternatives when they are unable to manage these medications.

Usual SC opioids are short acting when given PRN. Long acting preparations are available in the form of transdermal patches, but SC opioids will still need to be given until this becomes effective.

There are a number of documents available on the Kirkwood Toolkit page to assist with conversions and switching opioids, including advice on what to do if a syringe driver is unavailable. These documents are as follows:

- MD159 Alternatives to Common Palliative Care Drugs - Strong opioids (oral + transdermal)
- MD160 Alternatives to common palliative care drugs – Strong opioids via syringe driver
- MD161 Opioid conversion chart

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Flowchart for management of symptoms in COVID-19 positive patients when no syringe driver is available

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COVID-19 positive patient with breathlessness/restlessness/agitation at end of life

Stat dose midazolam 2.5-10mg SC

If further PRN dose required within 30-90 minutes

Stat dose midazolam 5-10mg SC

If further PRN dose required within 30-90 minutes

Give loading dose of phenobarbitone (phenobarbital) 120-200mg IM or IV

(please see administration guidance on page 1 of this document)

If further PRN dose required within 30-90 minutes

Repeat dose of phenobarbitone (phenobarbital) 120-200mg IM or IV

Remains symptomatic

IF BREATHLESS AND AGITATED:

Continue to use midazolam 5-10 mg SC PRN (please note this is short acting)

AND

Levomepromazine 25-50mg SC PRN

IF AGITATION ALONE:

Give levomepromazine 25-50mg SC PRN

Review effectiveness of above interventions (noting there may be a cumulative effect) and contact Kirkwood Hospice for advice as required

We would appreciate feedback as to effectiveness of intervention and whether other symptoms in COVID patients become prominent – please contact stephen.oxberry@kirkwoodhospice.co.uk with your experience and we can review our guidance.

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