**EMERGENCY PALLIATION PROTOCOL FOR NON-VENTILATED**

**COVID-19 PATIENTS – HOMECARE VERSION[[1]](#footnote-2)**

**Preamble**

For patients triaged to supportive end of life care at home based on either

**1.** Advanced directive

**2.** Severe adverse prognostic factors and resource allocation

**Underlying principles**

**1.** Patients have a right to relief of suffering at the end of life

**2.** Application of simple protocols can provide relief in most situations

**3.** This can be a rapidly progressive disease and some patients will need very intensive symptom control urgently

**4.** Expert consultative back up by palliative care service will be available 24/7

**5.** Aim to optimise relief, and minimise staff exposure

**6.** Sensitive and effective communication is a core element of care

**Essential equipment**

**1.** SC infusion needle, SC catheter and tape + NaCl 10 ml (1 ml for flushing)

**2.** Syringes 2 ml, 5 ml and 10 ml, pull-up needles

**3.** Thermometer

**4.** Oxygen saturation meter

**5.** Infusion fluids

**6.** Ampules of saline

Ml=millilitre, NaCl= sodium chloride, SC= subcutaneous

**Essential medicines:**

**1.** Transdermal fentanyl (preferred option to minimise staff exposure time)

**2.** Parenteral morphine

**3.** Parenteral midazolam

**4.** Parenteral major tranquilizers (haloperidol, olanzapine or chlorpromazine)

**5.** Diazepam suppositories

**6**. Parenteral antiemetics (metoclopramide, haloperidol, ondansetron)

**Other important alternatives**

**1.** Transmucosal fentanyl (abstral, fentora, PecFent, instanyl)

**2.** Sustained release and immediate release morphine tablets

**3.** Sustained release and immediate release oxycodone tablets

**4.** Oral morphine immediate release

**5.** Promethazine

**Palliation of breathlessness/dyspnoea**

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| If breathless despite oxygen supplementation* Start regular opioid: morphine CR 10-30 mg 12 hrly, or transdermal fentanyl 12 mcg/hr, or oxycodone CR 10-20 mg 12 hrly
* SC Morphine 2.5-5 mg as needed, up to every 20 minutes
* Provide IV/SC antiemetic if necessary
 | Monitoring* Adequacy of relief
* Excessive sedation
* Side effects
* Frequent use of rescue doses
 |
| If this is inadequate* Increase dose of long acting opioid
* Rescue dose of transmucosal or intranasal fentanyl or SC morphine 5 mg as needed, up to every 20 minutes
* Titrate to effect, dose can be increased every 24 hours

OR* Start morphine infusion 15-30 mg in 100 cc SC over 24 hr
* Rescue dose 5 mg SC push
* Monitor for adequacy of relief, excessive drowsiness
* Titrate to effect, dose can be increased every 12 hours

BE PREPARED TO INCREASE DOSING RAPIDLY IF NEEDED |
| If agitated* Use midazolam 2.5 mg SC push, or rectal diazepam 10 mg as needed
* If repeated doses are necessary, start midazolam infusion 1 mg/hr
* Titrate midazolam to effect

Alternative* olanzapine 5-10 mg SL/SC (8-12 hrly)
* chlorpormazine 25-50mg IM/IV (8 hrly)

BE PREPARED TO INCREASE DOSING RAPIDLY IF NEEDED |
| If still distressed, consider palliative sedation (see below)* Call palliative care consultation 24/7
 |
| CR=controlled release; hr=hour; hrly=hourly; IV=intravenous; IM=intramuscular; mg=milligram; mcg=microgram; PO=orally; SC=subcutaneous; SL=sublingual |

**The palliative care clinicians for emergency consultation** - List palliative care contact phone numbers

**Palliation of agitated delirium**

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| Evaluate for reversible triggers* Hypoxemia
* Urinary retention/constipation
* Medication reaction
* High fever
* Dehydration
 |
| If this is inadequate* Trial of haloperidol SC 1 mg 12 hrly or, if haloperidol is contra-indicated, clozapine 12.5 mg or olanzapine 10 mg SC/PO 12 hrly
* Haloperidol can be titrated to maximal dose of 5 mg 8 hrly SC
 |
| If agitation persists, or if patient is unconscious and agitated* Use midazolam 5 mg SC push
* If repeated doses are necessary, add midazolam 1-2 mg/hour SC
* If still agitated repeat 5 mg bolus midazolam SC every 2 hours and increase the infusion rate by 50% 4 hrly until settled

Alternatives * Rectal Diazepam 10 mg, levomepromazine 12.5-25 mg SC, lorazepam 1-4 mg SC 4 hrly, clonazepam 1-2.5 mg 6 hrly SL, chlorpromazine 25-50 mg IM/IV 8 hrly

BE PREPARED TO INCREASE DOSES RAPIDLY IF NEEDED |
| If still distressed, consider palliative sedation (see below)* Call palliative care consultation
 |
| Hrly=hourly; IV=intravenous; IM=intramuscular; mg=milligram; PO=orally; SC=subcutaneous |

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**Other Symptoms**

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| **Cough*** Dextromethorphan capsules, freely available
* Codeine up to 6x/day 10-20 mg
* Morphine CR 10-20 mg 2x/day or oxycodone 5-10 mg 2x/day 10-20 mg or morphine 2.5 mg SC if required
 |
| **Sleeplessness*** Zolpidem 5-10 mg PO, or temazepam 10-20 mg PO or rectal

OR* Mirtazapine dissolving tablet 7.5 – 15 mg PO
 |
| CR=controlled release; mg=milligram; PO=oral; SC=subcutaneous |

**Palliative Sedation for Patients Near Death**

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| **When SC infusion device is available** * Start: midazolam 10 mg bolus SC
* <70 years of age 2.5 mg/hour
* >70 years of age 1.5 mg/hour
* Bolus of 5 mg SC as needed 2 hrly
* If repeated bolus doses are needed, dose increment in steps of 50% 4 hrly
 |
| **SC infusion without pump*** Start: midazolam 10 mg bolus SC
* SC midazolam 5-10 mg 4 hrly; increase in steps of 50% 4 hrly if needed
* Bolus of 5 mg SC as needed 2 hrly
 |
| **Other options*** Rectal diazepam 10 mg every hour till sufficient sedation is reached, in average 40-60 mg/24 hour required

OR* Lorazepam tablets or injection fluid sublingual, 2-4 mg 4 hrly

OR* Clonazepam sublingual, 1-2.5 mg 6 hrly
 |
| Hrly=hourly; IV=intravenous; mg=milligram; SC=subcutaneous |

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1. **Adapted from** guideline palliaweb (Authors Janssen and van de Beuken) by Wilbert Dominicus and Fennanke Hellinga GPs and Fabienne Warmerdam, medical oncologist, Transmural palliative advice team Zuyderland.

**Implemented in** the Netherlands by the Dutch Society of Medical Oncologists (NVMO) and the Dutch Society of General Practitioners (NHG).

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