EMERGENCY PALLIATION PROTOCOL FOR NON-VENTILATED COVID-19 PATIENTS – HOME CARE VERSION¹

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

¹Adapted from guideline palliative (Authors Janssen and van de Beuken) by Wilbert Dominicus and Fennanne 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). Reviewed and additional edits by Prof Nathan Cherry (Israel), Prof Anna Reynolds (Netherlands), Prof Augusto Caraceni (Italy), Prof David Currow (Australia), Prof Elisabeth de Vries (Netherlands), Prof Marie Fallon (Scotland), Dr Alexandru-Calin Grigorescu (Romania), Dr Azza Hassan (Qatar), Prof David Hui (USA), Prof Karin Jordan (Germany), Prof Stein Kaasa (Norway), Dr Gudrun Kreye (Austria), Dr Masanori Mori (Japan), Dr Tatsuya Morita (Japan), Prof Ozgur Ozyilkic (Turkey), Prof Carla Ripamonti (Italy), Dr Maryna Rubach (Poland), Prof Tamari Rukhadze (Georgia), Prof Dirk Schrijvers (Belgium), Dr Anna-Marie Stevens (UK), Dr Jayne Wood (UK), Prof Camilla Zimmermann (Canada)

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**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)

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**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

#### 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

#### 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)
- chlorpromazine 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

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

Palliation of agitated delirium

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

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

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

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