

Palliative Care in the COVID-19 Pandemic

Briefing Note

Recommendations for Symptom Control of Patients with COVID-19

Issue

COVID-19 is an acute disease with a clinical presentation of pneumonia and accompanying respiratory insufficiency. Thus, typical symptoms are dyspnoea (breathlessness), cough, weakness and fever. Other symptoms such as anxiety, panic, restlessness and delirium have been reported. Patients with rapidly deteriorating respiratory failure and who do not receive intensive care, develop acute respiratory distress syndrome (ARDS) with severe breathlessness, anxiety and panic, requiring rapid intervention for symptom control.

This briefing note covers the symptomatic treatment of these burdening symptoms. Other clinical problems such as fever, ventilatory failure, thrombosis or coagulopathies are not covered in this brief.

Symptoms and Recommendations

1. Dyspnoea: If dyspnoea persists despite optimal treatment of the acute disease, medical and non-medical measures should be used for symptom control.

a. Non-pharmacological interventions such as body positioning (leaning forward position, pillow support for arms etc), relaxation or cooling of the face with a cool towel (no hand-held fans to prevent dissemination of the aerosol) may alleviate mild breathlessness. Oxygen or high flow oxygen (with oxygen reservoir) may also relieve breathlessness if intensive care and invasive ventilation are not indicated.

b. Pharmacological treatment: If breathlessness persists despite treatment of the underlying disease, pharmacological interventions should be implemented including the provision of oral or parenteral opioids. Slow-release opioids with constant drug levels may be used for persisting breathlessness. With acute dyspnoea and rapidly deteriorating patients, rapid dose titration with immediate-release application forms applied regularly and as required is preferred.

Recommended treatment:

i. Opioid-naïve patients able to take oral medications:

*Morphine oral	2.5–5 mg 4-hourly	
*Morphine slow release	10–0–10 mg**	(8.00 – 0 – 20.00)
***Lactulose	10–0–0 ml	
Supplement antiemetic if required: Haloperidol 0,5–1 mg at night and up to 2-hourly prn		
+ rescue medication as required, up to once per hour (immediate release opioids; 1/6 of the daily dosage)		
Morphine solution	2.5–5 mg**	(= 2-4 drops Morphine solution 2%)
alternatively, Morphine i.v. short infusion/ s.c.	1–3 mg**	
* or alternative opioids /**rapid titration according to symptom intensity /***or alternative laxatives (docusate, macrogol, etc)		

ii. Patients already on opioids and able to take oral medications

- Increase dosage of opioids by 20%		
- adapt rescue medication (immediate release opioids, 1/6 of daily dosage)		
- rescue medication as required, up to once per hour		
- continue constipation prophylaxis (f.e. Macrogol)		
	Example:	Increase by 20%
*Morphine immediate release	30 mg prn	**40 mg prn up to once per hour.
Morphine dosages >240mg/d: change application route to parenteral (1/3 dosage - 10%)		
* or alternative opioids /**rapid titration according to symptom intensity		

iii. Patients unable to take oral medications

Opioid naive patients:	**1 – 2 mg i.v./ s.c. 4-hourly or **Morphine 5-10 mg/24 h i.v./ s.c. via infusion pump
f.e. 50 mg *Morphine ad 50 ml NaCl 0.9%,	concentration 1 mg/ ml, **Starting dose 0.4 ml/h
Patients already on opioids:	
Conversion of previous opioid dosage to continuous parenteral application (i.v. or s.c.)	
Example: 60–30–60 mg Morphine p.o. equivalent to approx. 50 mg i.v./24 h	
50 mg *Morphine ad 50 ml NaCl 0.9%,	concentration 1 mg/ ml, **starting dose 2 ml/h
*or alternative opioids / **rapid titration according to symptom intensity	

2. Cough: Patients with COVID-19 potentially suffer from dry cough, or from productive cough caused by bacterial superinfection.

a. Non-pharmacological interventions Include adequate ambient humidity, oral fluid intake, sucking sour candies, saline gargle or upright positioning of the upper body when sleeping as well as home remedies (f.e. ginger and honey, thyme cough solution).

b. Pharmacological treatment:

Morphine 3-5 mg p.o./4 h or continuously s.c./i.v. 5-10 mg/24 h
Noscapin 25–50 mg up to t.i.d.
Patients with productive cough should <u>not</u> receive anti-cough medications during daytime

3. Respiratory tract secretions: Respiratory tract secretions may occur in the final stage of life patients with COVID-19. Early provision of anti-secretory medication can prevent the development of secretions in the hypopharynx and trachea. However, already existing secretions will not be diminished. Repeated suction as well as parenteral fluids will increase secretions in dying patients.

a. Pharmacological treatment:

Hyoscinebutylbromide continuously s.c./i.v. 20 mg prn up to once per hour
or
Glycopyrronium continuously s.c./i.v. 0.2 – 0.4 mg 2- 5o 4-hourly

4. Restlessness and Anxiety: Breathlessness frequently generates restlessness and anxiety. Patients with acute COVID-19 infection, respiratory insufficiency and the decision to limit invasive ventilation therapy require frequent assessment and rapid treatment of acute and exacerbating breathlessness and anxiety.

a. Pharmacological treatment of anxiety and restlessness in patients with breathlessness, supplementing the opioid medication (example)

Lorazepam 1 mg p.o./s.l. (solution with 2 ml water if necessary) prn, up to once per 30 min
or
Midazolam 2.5-5 mg i.v. short infusion/s.c. prn, up to once per 30 min

b. Pharmacological treatment of refractory anxiety and restlessness in patients with breathlessness

- <u>early change to parenteral application route</u> i.v. (or s.c.) continuously or 4-hourly
- Midazolam-infusion pump (in combination with morphine)
- starting dose: Midazolam 10 mg/24 h, titrate to effect
Example → 10 mg Midazolam ad 50 ml NaCl 0.9%, rate 2 ml/h
or → Midazolam 2.5-5 mg short infusion/s.c. 4-hourly

5. Acute Agitation and Delirium: Patients with COVID-19 infections frequently suffer from agitation or delirium caused by infection, hypoxemia or isolation. Agitation and delirium require timely interventions. Potential causal factors have to be assessed and treated, including pain, constipation or full bladder.

a. Non-pharmacological interventions include assessment and treatment of potential causal factors, communication, provision of a quiet environment (well-lit and quiet room) and orientation for the patient (information on where and who the patient is, as well as on the actual situation they are in).

b. Pharmacological treatment of agitation and delirium

Predominantly motor **restlessness** (example)

Midazolam 2.5–5 mg i.v. short infusion/s.c. prn, up to once per 30 min

or

Lorazepam 0.5–1 mg s.l./p.o. prn, up to once per 30 min

or

Midazolam continuously i.v. or s.c. 10 mg/24 h

Example 10 mg Midazolam ad 50 ml NaCl 0.9%, rate 2 ml/h

Hallucinations and confusion

Haloperidol 1-2 mg s.c. prn, up to once per 30 min

or

Haloperidol s.c. continuously 2–5 mg/24 h

Example 5 mg Haloperidol ad 50 ml NaCl 0.9%, rate 2 ml/h

Delivery Routes

- Manipulations in the nasopharyngeal cavity should be avoided, due to the high virus load in this area.
- Patients with uncontrolled coughing or with secretions, should not receive medications via the oral, transmucosal or intranasal route.

Parenteral application routes should be preferred instead. The continuous application of opioids or midazolam usually requires an infusion pump. If no pump is available, medications can be injected subcutaneously or applied as a short infusion intravenously 4-hourly (see table B for dosages). A subcutaneous needle can be left in place and family caregivers can be trained to provide repeated injections using that needle.

References

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