



Therapeutic measures in patients with COVID-19 with expected unfavorable prognosis

There is a constant development of knowledge, approach and care in pandemic COVID-19. When using this document please adapt the recommendations to care setting, drug availability and regional context. The authors strive to keep this document up to date by making adjustment if needed.

This document serves as a recommendation for patients, who will not receive life-sustaining treatments such as intubation and resuscitation. Please remember to follow patient's advance directive.

Recommendations for symptom control

Symptom	Treatment	Reserve/Comments
Fever	<ul style="list-style-type: none"> Paracetamol/Perfalgan 1 g po/sc/iv max. 4g per day or, in case of contraindication or unavailability of the substance: Novalgine 4 g/24h iv continuously or 4 x 1 g po/sc /iv as short infusion (2nd choice because of side effects) NSAR not recommended (blitz-AT https://www.arznei-telegramm.de/html/2020_04/2004505_01.html) 	
Continuous dyspnoea	<ul style="list-style-type: none"> Morphine 10-20 mg/24h sc/iv continuous with adjustment to the needs and clinical course of the patient For patients already receiving opioid treatment: adjust the dose. For opioid naive patients: antiemesis with 40mg Metoclopramide po/sc/iv <p>→ For persistence and anxiety symptoms: Midazolam 5-10mg/24h iv (0.5 mg/h iv continuously). If no perfusor is available → see bolus in procedure reserve → Cave: Kaletra and other antiviral substances relevantly increase the plasma level of Midazolam! According to the Swiss drug information the combination is contraindicated.</p>	<ul style="list-style-type: none"> at least 10% of the 24h dose, can be given hourly, with insufficient control up to every 20 minutes check and if necessary adjust the continuous daily dose at least twice a day or as clinically indicated Midazolam reserve (in addition to Morphine reserve): reserve of 1-2 mg sc/iv, repeat as clinically indicated alternative: Midazolam nasal spray 2 hubs
Dyspnea Crises	<ul style="list-style-type: none"> Morphine 2.5-5 mg sc/iv bolus, repeat as clinically indicated For persistence of severe anxiety: Midazolam 1-2 mg iv-bolus, repeat as clinically indicated 	
Cough	<ul style="list-style-type: none"> Like dyspnea, start with bolus of Morphine sc/iv 2.5 to 5 mg, continuous dosing may also be necessary 	



In the following situations consultation of a specialist palliative care is recommended:

- Refractory symptoms (dyspnoea, anxiety) >12 h
- End-of-Life Care
- difficult and complex decision making
- organ insufficiencies -> use of other opioids recommended

Pain especially thorax, pleuritis, inflammation	<ul style="list-style-type: none">• Paracetamol/Perfalgan 1 g po/sc/iv max. 4g per day• Possibly additional Dexamethasone 4mg po/sc/iv in the morning• Morphine 2 mg sc/iv or 5 mg po
Refractory symptoms at the end of life	<p>Palliative sedation may be indicated for refractory symptoms (e.g. dyspnoea, acute terminal confusion, massive haemoptoe). → Please consult the in-house standards and/or consult a palliative care specialist or the pain service → You can also find further relevant information here: EAPC White Paper Sedation https://www.eapcnet.eu/Portals/0/adam/Content/LmgAajW9M0Os7VYZs0ZXCQ/Text/PMJ(23.7)Cherny_et_al.pdf</p>
General measures	<ul style="list-style-type: none">• The therapeutic goal for dying patients is the best possible well-being and treatment according to the patient's will and wishes. Relatives must be included in the care.• If possible, consult specialists for palliative care• Follow in-house or other protocols for End-of-Life Care (e.g. Paper: Care of dying people and their relatives, palliative.ch)• Consider support for family members, pastoral care, psychologists, care team, clinical ethics, etc.• Remember to consult with the hygiene officers/infectologists especially with regard to visits by relatives• Don't forget to support the medical teams in complex and stressful situations; if necessary contact a local Corona Care Team, pastoral care, psychologists or palliative care specialists• Precautions such as masks, apron and gloves should also be observed when dealing with dead people. The funeral home should be informed of the positive test for Sars-Cov-2.

Please note the SAMW criteria for the Covid-19-pandemic!
<https://www.samw.ch/de/Ethik/Themen-A-bis-Z/Intensivmedizin.htm>