

I. Recommendations for providing palliative Care for hospitalised COVID-19 patients with Critical Illness

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IAPC position on providing palliative care for hospitalised COVID-19 patients with critical illness

The IAPC would like to propose following recommendations for providing palliative for hospitalised COVID-19 patients with critical illness.

1. All patients with serious COVID-19 not eligible for ventilation or not responding to ventilation should be appropriately triaged for palliative care provision. (see annexure 1)
2. Dyspnoea, Distress/Delirium and Discomfort (Pain) are the key symptoms in serious COVID-19 patients. They should be promptly assessed and managed (see annexure 2)
3. Serious COVID-19 patients not eligible for ventilation should be considered for limitation of life sustaining treatment. It can be achieved by pre-emptive discussion of goals of care and advance care planning, ascertaining medical futility, communicating medical futility and documentation and consenting for withholding/withdrawing life-sustaining treatment. (see annexure 3)
4. All serious COVID-19 patients not suitable or not responding to ventilation and ICU measures should receive end of life care. Symptoms at end of life in these patients should be anticipated and anticipatory prescription should be provided (see annexure 4)
5. Palliative care provided in the ICU setting for critically ill COVID-19 patients should be uniquely adapted to COVID situation. (see annexure 5)

Annexure 1: Triaging of serious COVID-19 patients

Palliative care triaging in a humanitarian crisis like COVID-19 is classified into four categories. In serious COVID-19 patients who have severe acute respiratory illness and not responding to invasive ventilation, or not eligible for ventilation because of underlying medical conditions will be coded as red and blue categories. In these patients, palliative care should be integrated with the acute services and disaster response team for rapid and emergency palliative care (1). A rapid review of evidence on role and response of palliative care services in a pandemic has strongly supported the need for triaging (2). Triaging is not limited to assess palliative care needs in COVID patients but also needed for patients in the community receiving palliative care (3). (see table 1)

Table 1: Palliative Care Triaging in COVID-19 patients

Category	Colour Code	Description	Palliative Care Involvement
Immediate	Red	Survival only possible with immediate treatment	Emergency Palliative Care integrated with active care and disaster response
Expectant	Blue	Survival not possible given the care available	Emergency Palliative Care integrated with active care and disaster response
Delayed	Yellow	Not in immediate danger of death but treatment needed	Palliative care as required for symptom management
Minimal	Green	Will need medical treatment sometime in the future	Palliative care may be required for relief of symptoms

The patients not suitable for ventilation are categorised as stable, unstable and end of life (4). The categorisation is based on the early warning parameters recommended by the National Health Services, UK and World Health Organisation (5, 6). The parameters used in categorisation are EWS (Early Warning Scores), respiratory rate and oxygen saturation (7).

(see tables 2 and 3)

Table 2: Stratification of Palliative Care patients Not Suitable for Ventilation

Stable	A. EWS \leq 7 B. RR \leq 25/min C. O ₂ Saturation > 88% (On 60% venturi mask)
Unstable	A. EWS >7 B. RR >25/min C. O ₂ Saturation < 88% (On 60% venturi mask)
End of Life	A. ARDS B. O ₂ Saturation < 70%

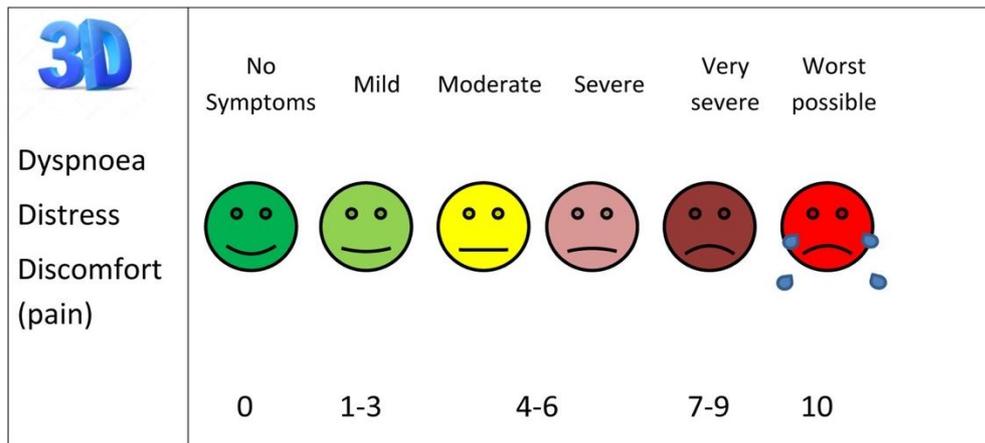
Table 3: Early Warning Scores

	3	2	1	0	1	2	3
Temperature (C)	<35		35.1-36	36.1-38	38.1-39	>39	
Heart Rate (beats/min)	<41		41-50	51-90	91-110	111-130	>130
Systolic BP (mm/Hg)	<91	91-100	101-110	111-219			>219
Respiratory Rate (breaths/min)	<9		9-11	12-20		21-24	>25
Oxygen Saturation (%)	<92	92-93	94-95	>96			
Supplemental Oxygen		Yes		No			
CNS response (Alert Verbal Pain and Unresponsive) *				A			VPU

Annexure 2. Assessment and management of key symptoms in critically ill COVID patients

The critically ill COVID patients develop three key symptoms dyspnoea, distress and discomfort (pain), which can be assessed using 3D-Ticino 2019-nCov Scoring Scale (4). (see figure 1)

Figure 1: 3D-Ticino 2019-nCov Scoring Scale



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3D assessment of COVID patients is done based on their triage categorisation as stable, unstable and end of life (4). For stable patients, 3D assessment is done once per shift, or every 8 hours whichever is earliest. For unstable and end of life patients, 3D assessment is done twice per turn, or every 4 hours whichever is earliest (4).

A study conducted in United Kingdom among 101 patients referred to palliative medicine showed that breathlessness, agitation, delirium and pain were the common symptoms (8). The severity of symptoms is assessed based on 3D-Ticino 2019-nCov Scoring Scale (4). Management of dyspnoea, distress and delirium and discomfort(pain) in serious COVID-19 patients are discussed below.

Dyspnoea

Severe acute respiratory illness of COVID-19 can present with intractable breathlessness refractory to medical management and high flow oxygen (9). Palliative management of breathlessness in serious COVID-19 patients are provided below (10-13). (see table 4)

Table 4: Palliation of breathlessness in serious COVID-19 Patients

Mild	Moderate	Severe	Worst/Intractable
<ul style="list-style-type: none"> • Medical management • High flow oxygen • Positioning (upright, sitting, leaning forward) • Cold flannel on the face 	<ul style="list-style-type: none"> • Strategies used for Mild + • Oral Morphine Immediate Release 2.5 mg BD-TDS + 2.5mg SOS. Slow upward titration by 2.5 mg daily up to 40-60 mg/day. If pain is present titration according to pain scores/pain relief • Oral Lorazepam 0.5 mg if anxiety is present. Increase by 0.5 mg daily up to 4mg/day. • Tab Metoclopramide 10 mg SOS for 	<ul style="list-style-type: none"> • Strategies used for Mild + • Inj Morphine 2 mg SC Q4H +Inj Midazolam 2 mg SC Q4H • If Syringe driver is available Inj Morphine 10-15 mg + Inj Midazolam 10-15mg as a 24-hour infusion • Inj Metoclopramide 20 mg IV SOS for vomiting • T Bisacodyl 10 mg SOS • Other strategies for managing constipation if the patient is unable to take oral Bisacodyl 	<p style="color: red;">See Table 9</p>

	nausea & vomiting <ul style="list-style-type: none"> • Tab Bisacodyl 10mg HS 		
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Distress and Delirium

Delirium and distress are common in patients with acute and serious illness needing ICU care or at the end of life (14). Distress and agitation may be associated with or without delirium. In COVID-19 patients, delirium may be due to sepsis, metabolic disturbances, cerebral hypoxia or due to medications (15). Most patients may have a hypoactive or mixed type of delirium with fluctuating levels of activation. It can initially present as the altered sleep-wake cycle, and patients gradually develop irritability, changes in behaviour, disorientation and difficulty in maintaining attention and can extend to altered consciousness and coma (16). Severe agitated delirium can present with restlessness and violent behaviour. Distress without delirium can be assessed using 3D-Ticino 2019-nCov Scoring Scale (4). If delirium is suspected, 4AT test is used to screen delirium (17). (see table 5)

Table 5: 4AT test for screening Delirium.

Item	Description	Score
Alertness Observe the patient. If asleep, attempt to wake the patient with speech or a gentle touch on the shoulder. Ask the patient to state the name and address to assist in scoring.	Normal (Fully alert and not agitated throughout the assessment)	0
	Mild sleepiness < 10 s after waking. Afterwards normal	0
	Clearly abnormal	4
AMT4	No mistakes	0

Age, date of birth, place (name of the building), current year.		
	1 Mistake	1
	2 or more mistakes or untestable	2
Attention Asking the patients to state months of the year backwards, starting at December.	Achieves 7 months or more correctly	0
	Starts but scores < 7 months. Refuses to participate	1
	Untestable (cannot start because unwell, drowsy or inattentive)	2
Acute change or fluctuating course Evidence of significant change or fluctuation in alertness, cognition, other mental function arising over the last two weeks and still evident in the last 24 hours.	No	0
	Yes	4
<p>4 or above – Possible Delirium</p> <p>1-3 – Cognitive impairment</p> <p>0 – Delirium very unlikely</p>		

Management of distress and delirium in serious COVID-19 patients is provided below(18-20).

(see table 6)

Table 6: Palliation of Distress and Delirium in Serious COVID-19 patients

Mild delirium	Delirium with agitation	Agitation/Restlessness without Delirium	Intractable Delirium Terminal Restlessness
<ul style="list-style-type: none"> • Non-pharmacological: Quiet room. Less visual/auditory excitation. Bed by the side of the window. Reorientation techniques. Consistency of the nursing staff. Avoiding physical restraints • Pharmacological: Oral Haloperidol 0.5mg BD and titrate dose upwards to a maximum of 10-15 mg/24h. 	<ul style="list-style-type: none"> • Non-pharmacological strategies for mild delirium+ • Pharmacological: Inj Haloperidol 2.5 mg SC Q6H-Q8H • If syringe driver is available Inj Haloperidol 5-10mg/24h continuous SC or IV infusion • If agitation not controlled add Inj Midazolam 2mg SC/IV Q4H or as continuous SC/IV infusion 10-15mg/24h 	<ul style="list-style-type: none"> • Mild symptoms: Non-pharmacological strategies used for Mild Delirium + relaxation therapies if possible • Tab Lorazepam 0.5mg HS titrated by 0.5mg up to 4mg. • Severe symptoms: Inj Midazolam 2mg SC/IV Q4H or as continuous SC/IV infusion 10-15mg/24h 	<p>See Table</p>

Avoid Benzodiazepines if possible			
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Discomfort (Pain)

The aetiology of pain in COVID patients in an ICU setting could be multifactorial and can be due to illness per se or due to medical procedures and invasive interventions (21, 22). In a conscious patient, the pain can be assessed using 3D-Ticino 2019-nCov Scoring Scale (4). However, in intubated and ventilated patients, patients with altered sensorium and cognitive impairment, behavioural pain scale is used to assess the intensity of the pain (23). (see table 7)

Table 7: Behavioural Pain Scale

Item	Description	Score
Facial Expression	Relaxed	1
	Partially tightened	2
	Fully tightened	3
	Grimacing	4
Upper Limb	No movement	1
	Partially bent	2
	Fully bent with finger flexion	3
	Permanently retracted	4
Compliance with ventilation	Tolerating movement	1
	Coughing but tolerating ventilation	2
	Fighting ventilator	3
	Unable to control ventilation	4

BPS Score ≤ 3 = No pain. BPS Score 6 = Unacceptable pain BPS Score 12 = Maximal pain

Management of pain in serious COVID patients in the critical care setting is provided below (24-26). (see table 8)

Table 8: Palliation of Pain in Serious COVID-19 patients

Mild	Moderate	Severe	Intractable
<ul style="list-style-type: none"> Oral Paracetamol 2-4gm/24h in four divided doses If the patient is not taking orally Inj Paracetamol 2-4gm/24h in four divided doses If neuropathic pain is present start Gabapentin 100mg HS and upward titration by 100-300mg/24h to a maximum of 2700-3600 mg/24h 	<ul style="list-style-type: none"> Strategies used for Mild + Oral Morphine Immediate Release 5mg Q4H and the breakthrough dose is 1/6th the 24-hour dose. Upward titration by 50% of dose every day If patient unable to take orally Inj Morphine 1-2mg SC or IV every 4 hours Consider Fentanyl if the patient has renal 	<ul style="list-style-type: none"> Strategies used for Mild + Inj Morphine 2-2.5 mg SC Q4H If Syringe driver is available Inj Morphine 10-15 mg as a 24-hour infusion Consider Fentanyl if the patient has renal failure. Fentanyl dose is 0.2-0.5mcg/kg/hr Inj Metoclopramide 20 mg IV SOS for vomiting 	See Table

<ul style="list-style-type: none"> • AVOID NSAIDs 	<p>failure. Fentanyl dose is 0.2-0.5mcg/kg/hr</p> <ul style="list-style-type: none"> • Tab/Inj Metoclopramide 10-20 mg SOS for nausea & vomiting • Tab Bisacodyl 10mg HS 	<ul style="list-style-type: none"> • T Bisacodyl 10 mg SOS • Other strategies for managing constipation if the patient is unable to take oral Bisacodyl 	
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Intractable symptoms

There will be a subset of patients who may not have relief of symptoms with the above measures and can have serious distress. These patients are managed by administering medications to induce a state of decreased awareness to relieve the suffering caused by intractable symptoms. It is known as palliative sedation (27). Before initiating palliative sedation, a thorough assessment is required to ascertain the reversibility of the clinical condition and the symptoms. Once irreversibility is established, families should be communicated about the refractoriness of illness, severity of symptoms and the lack of effective strategies to manage the symptom within a reasonable period of time. The need for initiating sedation should be discussed sensitively, and family should be encouraged to participate in decision-making. Once the family is willing, consent has to be obtained stating the clinical condition, prognostication of illness, the intractable nature of the symptoms, the proposed approach, the probable duration of sedation and any anticipated side effects (28). Management of intractable symptoms is provided below. (see table 5.1.9)

Table 9. Management of Intractable Symptoms

First-line	Second line	Third line
<ul style="list-style-type: none"> • Midazolam 2 mg Stat • Midazolam 10-15mg/24 h IV or SC infusion • Midazolam dose can be incrementally increased by 30% of the initial treatment until the desired sedation is achieved. • If there is no response to incremental doses or severe distress persists at high doses of Midazolam (75-100mg/24h) second-line agent should be considered. 	<ul style="list-style-type: none"> • Phenobarbitone 100mg stat IV • Phenobarbitone 400-800mg/24h as continuous IV infusion up to 1600mg/24h 	<ul style="list-style-type: none"> • On infrequent occasions severe distressing symptoms not controlled by first- and second-line agents to consider Propofol 0.5mg/kg IV stat and maintenance of 1-4mg/hr IV as a continuous infusion

Annexure 3. Limitation of life-sustaining treatment in serious COVID-19 situations

Goals of Care Discussion and Advance Care Planning

A study conducted in New York in 5700 patients with COVID-19 showed that mortality in patients needing ventilator support was 88.1% (29). A special report suggested that elderly with comorbidities and COVID-19 have high mortality. Moreover, they did not prefer to die in the intensive care unit, rather in a environment familiar to them (30).

Therefore, before shifting elderly patients with multiple comorbidities, patients with end-stage organ impairment and advanced cancer to ICU, it may be useful to discuss the goals of care and plan for treatment (31). The goals of care discussion should involve talking to the patients and their families about the nature of the treatment they would like to receive and their preferences about the place of care (32). Elderly patients with multiple comorbidities and patients with end-stage organ impairment and advanced cancer with COVID-19 should be explained the benefit and disadvantages of invasive ventilation and ICU measures should they develop a serious acute respiratory illness. Their preferences for life-sustaining treatment should be documented. The primary purpose of advance care planning is to avoid intensive care admissions in serious COVID-19 patients who are unlikely to benefit from ICU measures and ventilation (33). The other purpose of advance care planning is to spare the patients and their families from complex triage discussions and decision-making by discussing the goals of care in advance (33).

Ascertaining Medical Futility

The treating doctors, emergency physicians or intensivists should determine the futility of initiating or continuing aggressive ICU treatment in patients with serious COVID-19 (34). The futility is determined based on a combination of criteria given below (35). As there are no established medical futility criteria for serious COVID-19 situations, the treating doctors should use their discretion while considering a combination of criteria. The futility should be established by the treating doctor(s), and documented in the medical records and signed (36). If there is no consensus, then a time-limited trial of intensive care treatment can be initiated,

and the patient should be reassessed after 48 hours to determine the need for continuing life-sustaining measures (37). (see table 10)

Table 10 Criteria for Medical Futility in Serious COVID-19 patients

<ul style="list-style-type: none">• High Sequential Organ Failure Assessment (SOFA) Score (38)• Irreversible shock• Progressively worsening neurological condition• An increasing need for ventilatory support• Older age (Especially age>80 years)• Multiple comorbid conditions/end-stage organ impairment/advanced cancer• Physician prediction of a low probability of meaningful survival

Communicating Medical Futility and Documentation

After the treating doctors document the medical futility, a family meeting should be conducted (39). If possible, it should be conducted in a room that offers privacy to the family and where doctors and family members can sit and discuss. It may not always be possible to perform a face to face meeting due to infection control protocols. In these situations, these communications can happen as video chats. After the family meeting, the details of the interaction with the family is documented and signed by the healthcare providers participating in the family meeting. If the team feels it necessary, they can ask the family representative to countersign the family meeting documentation. (see table 11 and 12)

Table 11. Aspects discussed during the family meeting while communicating medical futility

<ul style="list-style-type: none">• Refractory or critical nature of the illness (based on the futility criteria provided before)• Benefit versus burden of initiation/continuation of aggressive medical management• Symptom relief measures as an alternative to futile need less intensive care treatment
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- Myths, misconceptions about illness or foregoing life-sustaining treatment
- Consensus/Conflict in the family about the decision to forego life-sustaining treatment
- Discussing the process of dying and symptom relief measures provided

Table 12: What statements to avoid and use during communication

Avoid	Use
There is nothing more we can do for the patient	We will do everything possible to take care of the patient
You must be very strong and brave now	We understand that it is an emotional time and it is okay to feel scared and anxious
Don't worry patient will die peacefully with these drugs	We will do the best we can to see that the patient does not suffer and made comfortable
You cannot be with your patient. It can be dangerous for you	I am sorry that you cannot have your loved one around you. We are doing everything possible to protect you while we are caring for your loved one

(Adapted from the Italian Society of Palliative Care Guidance) More detailed scripts are available as a toolkit at [vitaltalks.org](https://www.vitaltalks.org/guides/covid-19-communication-skills/) (<https://www.vitaltalks.org/guides/covid-19-communication-skills/>)

The futility assessment and documentation in the medical records should be according to the respective hospital end of life care policy and protocol. (see table 13)

Table 13. Documenting Medical Futility in Case Records

- A statement stating the patient has serious acute respiratory illness secondary to serious COVID-19 situation with no reasonable chance of recovery. The burden or harm of initiating/continuation of a life-sustaining treatment outweigh the possible benefits
- Clear reason justifying the decisions and how it satisfies the futility requirements
- Summary of treatment provided till date
- Life-sustaining treatments provided, planned to be withheld/withdrawn
- Alternative symptom management strategies deployed

Consenting for withholding/withdrawing life-sustaining treatment

A simple consent form provided below can be used to document the decision to forego life-sustaining treatment. It can be printed as a separate form or can be printed on the case records. (see table 14)

Table 14. Consent for withholding/withdrawing life-sustaining treatment (template)

1. Name of the patient, address, identification document
2. Place and Date and Time
3. Reason for the decision to forego life-sustaining treatment
4. Whether the patient has the capacity to make decisions and communicate.
5. If YES to Question 4, Document if the patient has understood and agreed with the plan. Name of the patient and Signature/Date
6. If No to Question 4, Document if surrogate/next of kin has understood and agreed with the plan. Name of the surrogate(s)/next of kin(s) and Signature/Date
7. Countersigned below by the treating doctor(s), Name and Signature/Date and Time

Annexure 4. End of Life Care for Serious COVID-19 patients in the ICU

Patients who are not ventilated or discontinued from ventilation can develop severe breathlessness, delirium and moist breathing. They can be considered a combination of medications either as a continuous infusion or intermittent dosing along with breakthrough medications. Inj Morphine 10-15 mg/24h + Inj Midazolam 10-15 mg/24h can be combined and administered as an infusion or Inj Morphine 2mg + Inj Midazolam 2mg every 4 hours. If respiratory secretions are present Inj Glycopyrrolate 0.2 mg every 6-8 hours. The breakthrough medications are given SOS for symptoms, and breakthrough medications can be provided in the intervals of one to two hours as required. The breakthrough doses are one-sixth of the 24-hour dose. Patients with serious COVID-19 not ventilated/withdrawn from a ventilator can develop severe symptoms. These should be anticipated, and an anticipatory prescription should be provided for all the patients. Patients who have intractable symptoms should be managed according to the palliative sedation guidance provided in the intractable symptoms before. As palliative extubation can lead to aerosol generation risking other health workers and families, it is recommended not to consider palliative extubation in the serious acute respiratory illness of COVID-19 situations (40). It is recommended to decrease ventilatory support gradually and continue symptom relief measures (41). (see table 15)

Table 15: Anticipatory prescription for patients with serious COVID-19 receiving End of Life Care

Symptom Anticipated	Treatment Plan
Pain	Inj Morphine 1-2 mg SC or IV
Breathlessness	Inj Morphine 1-2 mg SC or IV
Distress/Agitation	Inj Midazolam 1-2mg SC or IV
Delirium	Inj Haloperidol 1-2 mg SC or IV

Delirium with severe agitation	Inj Haloperidol 1-2 mg SC or IV + Inj Midazolam 1-2mg SC or IV
Respiratory secretions	Inj Glycopyrrolate 0.2 mg SC or IV
Nausea and Vomiting	Inj Metoclopramide 20mg SC or IV

Annexure 5. Adaptations in palliative care delivery in critically ill COVID-19 patients

Few strategies and adaptations are recommended to meet the increasing palliative care needs of the critically ill patients admitted in the ICU (42, 43). (see table 16)

Table 16: Adaptations in Palliative Care Delivery

- Short training for frontline and emergency physicians in recognising and managing the end of life symptoms (44).
- Creating symptom management and sedation protocols for use by emergency and critical care physicians.
- Coaching the emergency and critical care physicians to have difficult conversations. Creating communication cards for ready use. Having regular debrief sessions with emergency and critical care physicians (45).
- Developing referral pathway and triggers for palliative care teleconsultation and face-face consultation.
- Face-face consultation reserved for patients with intractable physical symptoms and primary management by the emergency and critical care physicians have failed to show any benefit.
- Creating channels of communication between patients and families when no visitor policy is enforced
- Encouraging emergency health workers to be with the patient and comforting them during the dying process.

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