Western Cape Government
Health

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CIRCULAR H 83 OF 2020: COVID CRITICAL CARE TRIAGE AND DECISION TOOL

This document represents a consensus on the approach to managing the outbreak of SARS-CoV-2 in the Western Cape. The Critical Care Forum has representation from tertiary, secondary, regional and large district hospitals.

The main objectives of the guidelines contained in this document are to:
1.1. Maintain a standard of quality critical care
1.2. Direct scarce critical care resources as efficiently and efficaciously as possible
1.3. Provide a coordinated and consistent approach for public hospitals across the Western Cape

This Circular refers to Circular H79 of 2020 Clinical Guidelines- COVID-19 providing Palliative Care and Circular H 67 of 2020: Provincial Palliative Care position statement and plan for COVID-19 response and is subject to change as evidence emerge.

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Yours sincerely

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COVID-19 Outbreak Response Guidelines

Western Cape Critical Care Forum

Version 1.4

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Section A: Introduction

1. Executive Summary

This document represents a consensus on the approach to managing the outbreak of SARS-CoV-2 in the Western Cape. The Critical Care Forum has representation from tertiary, secondary, regional and large district hospitals.

There is currently little or no robust data on the management of patients with SARS-CoV-2 in the literature. The content of this document has been put together based on the limited information available, international recommendations and guidelines, the experience of international colleagues, the participating clinicians and information that has come forth on the internet and through social media.

This document needs to be interpreted in conjunction with circulars H67 and H68 of 2007. These are the Critical Care Admissions, Discharge and Transfer Policy Document and Policy: Defining Critical Care for the Western Cape.

The main objectives of the guidelines contained in this document are to:

1.1. Maintain a standard of quality critical care

1.2. Direct scarce critical care resources as efficiently and efficaciously as possible

1.3. Provide a coordinated and consistent approach for public hospitals across the Western Cape

2. Fundamental issues in dealing with COVID-19

2.1. Tygerberg Hospital is currently designated as the referral hospital for port authorities. This does not equate to Tygerberg Hospital being the receiving hospital for all, either suspected or confirmed, cases of COVID-19. It is a reality that Tygerberg Hospital does not have the capacity to deal with all COVID-19 patients in the Western Cape.

2.2. The recommendations of the World Health Organisation are to attempt to contain the spread of disease through isolation. This will be upheld as far as is reasonably possible.

2.3. It is desirable to keep the movement of confirmed cases to an absolute minimum both within and between healthcare facilities.

2.4. It is desirable to keep the exposure of all categories of healthcare workers, support personnel and the general public to an absolute minimum.

2.5. To successfully manage an outbreak the combined efforts of all healthcare facilities is required. Each hospital will have to shoulder its share of the disease burden.

2.6. Close communication between hospitals with respect to the demand for critical care beds is likely to be crucial in trying to ensure the best outcome for as many patients as possible.

Section B: Planning and Preparedness

3. Legal, regulatory and ethical framework

The guidelines in this document conform to the following:

- National Health Act 61 of 2003
- Disaster Management Act 57 of 2002
    - Regulations issued in terms of Section 27(2) as published in volume 657 of the Government Gazette on 18 March 2020
- Health Professions Act 56 of 1974
- Nursing Act 33 of 2005
- Occupational Health and Safety Act 85 of 1993, as amended by the Occupational Health and Safety Act 181 of 1993

- All guidelines of relevant Professional Councils
- The following ethical duties:
    - Non-maleficence (duty to do no harm and to prevent harm)
    - Distributive justice (fair distribution of benefits and burdens)
    - Autonomy (the patient or their surrogate can make an informed decision to refuse critical care treatment)

As seen in other countries where healthcare systems have been overwhelmed by COVID-19, it may happen that medical and nursing personnel exceed their scope of practice out of necessity. These circumstances are extraordinary and unprecedented. While every effort will be made by incident management teams, medical personnel and nursing personnel to abide by legal, regulatory and ethical standards there may be actions taken that cannot be justified or that may lead to harm. The following actions will warrant immediate disciplinary action:

- Theft of medication or supplies
- Sharing of patients' photographs or other confidential information on social media
- Physical altercations with colleagues, patients or other members of the public
- Disobedience of a direct order that results in harm to the patient
- Unauthorised release of information to the press

4. Surge capacity

4.1. Isolation and critical care areas

Current reality is that a limited capacity to expand intensive care services exists.
It is likely that the major stumbling block to the expansion of capacity will be in the form of staff constraint, particularly nursing. With the progression of the outbreak, staff illness, fear and truancy are likely to limit the ability to expand services.
The secondment of staff from other components of the service may be needed to support intensive care units.

4.1.1. Isolation rooms must be identified and equipped for patients who require testing or are awaiting test results for COVID-19

4.1.2. Intensive care units in public hospitals are almost always operating at full capacity

4.1.3. From what is known about COVID-19 the number of patients requiring critical care will place a significant burden on our system

4.1.4. Hospitals are advised to find suitable areas to convert into temporary intensive care units provided that there is sufficient equipment and trained personnel to care for patients in these areas

4.1.5. The table below indicates the maximum potential for accommodating ventilated patients in the Western Cape given current resources. It is important to appreciate that this represents a theoretical maximum and the resource cannot be directed solely at the management of patients with COVID-19.

4.2. Other patient care areas

Providing isolation rooms and additional intensive care units will impact on the space available for other patient care areas. Each hospital must make a careful assessment of which services can be deferred in order to free up space for isolation rooms and intensive care units

4.3. Rapid discharges

In the event that potential COVID-19 patients still need to be admitted but all available space has been allocated and healthcare services have already been deferred it will become necessary to discharge patients in order to free up beds. A rapid discharge policy that lists specific criteria and guidelines should be in place so that patients are not randomly discharged, possibly needing to be readmitted at a later stage.

4.4. Temporary transit lounges

Areas will need to be identified for patients who have been rapidly discharged but who are unable to leave the hospital immediately.

4.5. Morgue capacity

With the current mortality rates in the country, the average 3% mortality rate associated with COVID-19 could lead to insufficient space in hospital and state mortuaries. Protocols such as coordination with private

mortuaries must be in place as soon as possible.

5. Inter-hospital mutual aid agreements

Where possible hospitals may agree to assist each other with resources, procedures and information
Records should be kept when equipment is transferred between hospitals or when personnel are rerouted to other hospitals as this may have financial implications that need to be addressed later

6. Incident management structure

6.1. This section only applies if a specific hospital does not already have an incident management team.

6.2. The response to this outbreak follows an incident management approach, allowing for hospitals to maintain a level of autonomy while still fitting into the provincial incident management structure. Each hospital must be able to make decisions for its own circumstances to provide the highest level of care according to the guidelines of this document.

6.3. The functions of the management structure will include making decisions about whether or not to escalate or de-escalate event stages regardless of thresholds and triggers, making decisions regarding the critical care of patients and the operations of the intensive care units and adjusting the hospital's response plan when necessary.

6.4. The recommended members of the incident management team are:

- Hospital CEO
- Head of ICU
- Senior Nurse Manager or Deputy
- Assistant Manager of Nursing: Emergency Unit
- Assistant Manager of Nursing: ICU
- Representative for facility management rep
- IPC team
- Representative for EHS
- Representative for support services

7. Roles and responsibilities

Roles and responsibilities that relate specifically to the COVID-19 outbreak should be established for all affected departments and/or services and assigned to specific people for communication to their departments. Job cards can be created for these roles so that, should certain responsibilities be assigned to specific people, someone else can easily fill that role when the designated person is not available.

- General management
- Nursing management
- Pharmacy
- Allied health management
- Equipment distribution and tracking (clinical technicians and asset management)
- Procurement (supply chain management and those responsible for ordering agency staff)
- Security
- Food, water, linen, hygiene, etc.
- Support services
- Bed management
- Public and media liaison
- Communications, information technology and information management

8. Infection prevention and control

It is absolutely imperative that all institutions ensure that staff are adequately prepared and practised in the proper use of personal protective equipment and infection control.
It is suggested that staff that will be in contact with patients with SARS-CoV-2 have their infection control practises

scrutinised and checked.

The following recommendations apply –

8.1. The use of the following is mandatory if in contact with patients either known or suspected to have COVID-19:

- A surgical facemask
- A protective apron, or similar
- Gloves

8.2. The use of the following is mandatory for procedures where aerosol production is a risk (the taking of nasopharyngeal and pharyngeal swabs in non-ventilated patients or the performance of intubation):

- An N95 face mask
- Eye protection (goggles)
- A protective apron, or similar
- Gloves

The above measures need to be employed in combination with meticulous hand hygiene. N95 masks, when used need to be discarded after each use.

8.3. The handling of the remains of infected patients may also present a risk of infection. The following points are taken from the NICD's **COVID-19 Environmental Health Guidelines:**

8.3.1. The act of moving a recently deceased patient onto ta hospital trolley for transportation to the mortuary might be sufficient to expel small amounts of air from the lungs and thereby present a minor risk

8.3.2. A body bag should be used for transferring the body to the mortuary and those handling the body at this point should use full personal protective equipment

8.3.3. The outer surface of the body bag should be decontaminated immediately before the body bag leaves the ward or anteroom. This process may require at least 2 individuals wearing protective clothing

8.3.4. The trolley carrying the body must be disinfected prior to leaving the ward or anteroom

8.3.5. Prior to leaving the ward or anteroom the staff members must remove their PPE.

8.3.5. After use, empty body bags should be treated or disposed of as health care risk waste.

9. Training

Training, at this point, should already have been done for all hospital personnel. Hands-on refresher training may be necessary and can be conducted by IPC or intensive care Operational Managers. Full training sessions for agency personnel may be practical or feasible. It is recommended that only experienced agency personnel be allowed to care for infected patients and that these agency workers be included in any refresher courses conducted in the intensive care units.

10. Safety and security

It is left to the discretion of each hospital to decide how many visitors, if any, to allow per patient during this outbreak. Security may need to be increased for intensive care units and isolation units to assist with irate visitors who have been refused entry and to ensure that no unauthorised people try to gain access to these areas.

A control measure must be implemented to control access for personnel who have been asked to assist during this outbreak but who are not employed by the hospital or working through a registered agency.

Vigilance in the affected areas is needed to prevent the theft of medication or supplies.

Section C: Operations

11. Business continuity

While it is of utmost importance to provide the highest level of care to patients infected with COVID-19, the treatment and care of other patients in the intensive care units and throughout the rest of the hospital cannot be jeopardised. The additional requirement for critical care beds will impact the normal functions of a hospital but this effect must be limited for as long as possible. Any plans for the expansion of the critical care units and the implementation of additional isolation areas must be done in consultation with affected areas.

12. Comorbidity

Critical care resources are always in high demand and this outbreak will increase that demand. Difficult decisions will have to be made in allocating limited resources when demand exceeds availability, including the expanded intensive care units. The assessment criteria will include comorbidity. Patients and their relatives must be made aware of this. There is currently not enough known about how COVID-19 affects patients with HIV and TB which are both widespread in the Western Cape. As more information is made available it may affect the triage assessment of these patients.

13. Critical care triage

Current evidence suggests that patients requiring intensive care deteriorate 6-10 days after presenting with symptoms of COVID-19, becoming progressively short of breath and developing signs of multiple organ dysfunction.

At the outset it must be appreciated that many patients will present as severe community acquired pneumonias, of which only a subgroup will have SARS-Cov-2 as an aetiologic agent. There is little need to alter the management of this group of patients other than to include viral screening on tracheal aspirate/bronchoalveolar lavage as a routine. Viral screening to include standard respiratory pathogens and SARS-CoV-2 specifically.

Patients presenting with a severe community acquired pneumonia, and no diagnosis of COVID-19, who fit the case definition for COVID-19, should receive the usual standard of care and then be isolated and discussed with an infectious diseases expert.

For patients fitting the case definition of COVID-19 and presenting with late respiratory failure the following are noteworthy:

13.1. The late development of respiratory failure appears to carry a worse prognosis.

13.2. Elderly patients in other parts of the world have experienced a higher mortality than younger patients.

13.3. Patient comorbidity has an adverse impact on outcome. The comorbidities particularly associated with a poor outcome are diabetes, hypertension and ischaemic heart disease.

13.4. The onset of other organ failure in addition to respiratory failure has a grave prognosis.

13.5. The need for acute dialysis, in combination with the need for ventilation, also carries a grave prognosis.

13.6. ECMO appears to have little benefit in the management of COVID-19 patients.

13.7. The following general considerations apply when considering triaging patients:

- Critical care must be essential to patient survival.
- There must be a reasonable prospect of the patient surviving.
- Patient should be able to return to an independent life.
- Consideration of the resources a patient is likely to consume and likelihood of an ongoing need for additional care post survival or discharge from hospital.
- As part of the triage process patients need to be prioritised for ventilation and admission to ICU **(See Appendix 1: Patient Categories)**

13.8. With this in mind the following recommendations are made:

- Patients older than 70 years not be ventilated.
- Patients older than 65 years with comorbidity not be considered for ventilation.
- Ventilated patients showing no improvement after 5 days be considered for palliative care. [The Italian experience is that mortality after admission to ICU is 60-65% with death occurring between the end of first and the beginning of the second week of hospitalisation. Recovery is long, reducing the turn-over of ICU beds].

13.9. Current evidence is that the overall mortality for ventilated patients is between 70 and 85%.

13.10. With respect to HIV the following be considered:

- Patients not appropriate for ICU care:
    - AIDS defining disease
    - Viral load >10,000 despite antiretroviral treatment

- CD4 Count to consider in clinical context

13.11. Patients will be considered if they do not fulfil any of the above criteria and/or the reason for admission is not related to HIV infection

13.12. Critical Care Decision Tool

(See Appendix 2: Western Cape Critical Care Decision Tool)

14. Clinical management of COVID-19 patients

14.1. The ventilation of patients with COVID-19

The guidelines below are given based on the experience of colleagues, predominantly in Italy, and current best practise. There is currently no literature based evidence for ventilatory recommendations specific to COVID-19. The information below should be interpreted and implemented cautiously.

- High flow nasal oxygen, non-invasive ventilation and face mask CPAP be avoided at all costs due to the risk of creating viral aerosols
- Lung protective ventilation with a tidal volume 4-6mL/kg predicted body weight be implemented
- Permissive hypercapnoea be practised with the lowest possible respiratory rate to achieve a pH>7.2
- A PEEP of 13-15cmH_2O be titrated taking care that the p_aCO_2 does not increase.
- Minimal recruitment manoeuvres be performed
- Increase of F_iO_2 as necessary to maintain S_aO_2 of 88%
- Saturation does not need to be greater than 90%
- Limit oxygen exposure as far as possible and try to keep F_iO_2 < 60% if at all possible.
- Prone positioning is beneficial and patients frequently improve oxygenation
- Lung compliance is usually good in patients with COVID-19, hence the plateau pressure (P_{plat}) is usually <25-27 cmH_2O, with a driving pressure (Δplat) <13 cmH_2O.

14.2 General ICU management of patients with COVID-19

- Tracheal aspirates (or bronchoalveolar lavage) should be sent as a routine on admission. Nasopharyngeal or pharyngeal swabs may be negative, but tracheal aspirate/bronchoalveolar lavage has a much higher sensitivity.
- Steroids should only be used in cases of septic shock (at doses of hydrocortisone 50mg IV 6 hourly).
- High dose steroids for the purposes of treating the pneumonia are not recommended.
- Intravenous fluids must be limited as far as possible. Have a low threshold for commencing vasopressors rather than fluid loading in patients with hypotension.
- Review fluid volumes used for the delivery of all drugs including: vasopressors, insulin, electrolyte replacement and antimicrobial administration.

14.3. Nutritional management of patients with SARS-CoV-2 infection

See Appendix 3

14.4. Providing palliative care

See Appendix 4: Providing palliative care in South Africa during the COVID-19 pandemic

15. Implementation

The guidelines are scalable to allow for the most effective response at each hospital whatever their current situation may be. Due to the urgency of the situation the guidelines in this document must be implemented immediately. Circumstances will differ between hospitals and they might be at different event stages. The CEO/Incident Manager/Intensivist must assess the situation at the hospital to determine at which event stage to implement these guidelines.

16. Triggers and thresholds

Each hospital, according to their resources, will set thresholds and triggers for escalating or de-escalating into a different event stage. Moving from one event stage to another cannot happen randomly. The situation must be assessed by the incident management team before a decision is taken. Triggers and thresholds could be based on:

- Admission numbers

- Demand for intensive care beds
- Availability of equipment, personnel or other resources necessary for treatment

Any escalation or de-escalation between stages must be communicated to all areas of the hospital.

17. Escalation

It may cause unnecessary disruption to hospital services and result in improper or wasteful allocation of resources to implement these guidelines for the worst case scenario while confirmed infection rates are relatively low. A phased approach allows for a planned and strategic increase and/or redirection of resources as it becomes necessary.

All personnel should be aware of their roles in each event stage. All personnel must be informed when an escalation takes place so that they can adjust their tasks accordingly. Escalation should also be communicated to other hospitals.

18. Contingency plans

There are a number of variables which can affect the care of critically ill patients during this pandemic. Personnel may become infected and require isolation or treatment. Availability of equipment and medication could be affected by stricter import protocols. Other incidents at the hospital, e.g. fires or power outages, could impact critical care. As far as possible there should be contingency plans for the incidents most likely to have a moderate to serious impact on critical care.

19. De-escalation and return to normal function

As the outbreak is contained and fewer infections are reported there will be a decrease in demand for critical care treatment. It is advisable to delay the closure of expanded intensive care units and isolation areas until assurance is received from the National Department of Health that there is little to no chance of sudden re-emergence of large numbers of COVID-19 infections.

De-escalation must be strategic. Temporary intensive care units and isolation areas must be deep-cleaned before being returned to normal use. Equipment must also be properly cleaned according to IPC principles before being returned to use. De-escalation will most likely occur simultaneously with or shortly before the phased reintroduction of services that were put on hold due to the outbreak. This transition process can be managed between a member of the incident management team (or an appointed person) and the Operational Managers of the areas being reopened.

20. Data collection, storage and protection

Throughout the course of this outbreak it is important to collect as much data as possible and to maintain record keeping procedures. The knowledge and insight gained during this period will allow for better planning in preparedness for future infectious disease outbreak scenarios.

Accurate data collection will make it easier for hospitals to compile the necessary reports once the outbreak is declared resolved. Data will also be needed for financial reconciliations at a later stage when hospitals assess the financial impact that this outbreak has had.

The coordinated and consistent approach taken by the hospitals in the Western Cape requires that certain information be shared, within the hospital and between hospitals. An information system should be set up that facilitates easy storage of and access to shared data and resources.

The patient's right to privacy must still be respected and any details pertaining to a patient's identity and treatment must be kept confidential.

21. Communication

The key to a coordinated and consistent response is effective communication. The incident management team must keep personnel informed about any changes to the plan or any directives from the National or Provincial Department of Health. Communication must be accurate and transparent. Personnel should also be able to communicate their concerns, challenges and suggestions to the incident management team.

It is essential that hospitals remain in contact with each other to share information and resources as well as to offer support.

General information regarding the nature and spread of COVID-19 and basic preventative and protective measures should be posted on public noticeboards. Personnel should politely remind visitors about correct hygiene procedures upon entering the facility and whenever lapses are noticed. Communication with patients and their relatives must be timely, honest and direct especially as it pertains to treatment. A certain amount of frustration and possibly aggression is to be expected from patients or their relatives when being informed that their conditions have declined or that they do not meet the criteria for critical care treatment. Personnel are strongly advised to remain calm in these situations and to call a senior nurse or physician, or security if the situation escalates.

Any requests from the press for information or access to the hospital must be addressed to public relations and permission must be given by the CEO. Liaising with the press is necessary to keep the public abreast of the situation but it must be done in a way that ensures the dignity of the patients and the safety of personnel and members of the press. No member of staff may provide the media with any photographs, documents, copies of photographs or documents. It is recommended that public statements are made only by the hospital CEOs or the Provincial Department of Health to prevent the spread of misinformation.

22. Event stages and activities

To be determined by each hospital in accordance with the National and Provincial Department of Health's response plan and guidelines.

23. Staff support and debriefing

It is expected that hospital personnel will at some point become overwhelmed by the daunting task of working through this outbreak. There will be long hours, short tempers and not enough sympathy towards healthcare workers, especially those who have to make decisions regarding refusal or withdrawal of treatment.

Healthcare workers are one of the most at risk groups and there will almost certainly be infections amongst hospital personnel. It can be challenging to keep focused on the patients when healthcare personnel are seeing their colleagues becoming ill. Personnel may also be worried about family members who are infected. This will be a difficult period for South Africa as a nation, more so for those tasked with caring for the sick.

Hospital management is strongly advised to provide support for personnel in any capacity that they can. The Western Cape Government's Employee Health and Wellness Programme can assist in this regard. If possible, hold regular debriefings for personnel instead of waiting for a debriefing once the outbreak has been resolved. While patient care is of great importance, the physical and psychological health of healthcare workers must be a priority.

Key messages (taken from *Managing mental health challenges faced by healthcare workers during covid-19 pandemic by N. Greenberg, M. Docherty, S. Gnanapragasam, S, Wessely*)

- Healthcare staff are at increased risk of moral injury and mental health problems when dealing with challenges of the covid-19 pandemic
- Healthcare managers need to proactively take steps to protect the mental wellbeing of staff
- Managers must be frank about the situations that staff are likely to face

- Staff can be supported by reinforcing teams and providing regular contact to discuss decisions and check on wellbeing
- Once the crisis begins to recede, staff must be actively monitored, supported, and, where necessary, provided with evidence based treatments

SECTION D: ACKNOWLEDGEMENTS

24. Contributors

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25. References

In compiling this document information was sourced from:

- The National Institute for Communicable Diseases
- The World Health Organization
- Australian Health Sector Emergency Response Plan for Novel Coronavirus (COVID-19)

Appendix 1: Patient categories

Patient Categories

- **Priority 1**
  - Patients in need of ICU/high care management that cannot be provided outside of the critical care area i.e. ventilator support, continuous vasoactive drug infusions
- **Priority 2**
  - Require intensive monitoring and may potentially need immediate intervention.
- **Priority 3:**
  - Patients whom have a reduced likelihood of recovery because of underlying disease or nature of their acute illness
  - May receive intensive treatment to relieve acute illness but limits on therapeutic efforts may be set such as no intubation or cardiopulmonary resuscitation
  - These patients will be reviewed after 3 days in the ICU
  - **NB: As resources continue to be depleted, priority 3 patients may become priority 4**
- **Priority 4:**
  - These are patients who are not appropriate for ICU admission. Patients with decision-making capacity who decline intensive care, invasive monitoring, diagnostic or treatment procedures deemed necessary to survive
  - **" Too well " to benefit from ICU care**
    - Little or no anticipated benefit from ICU care based on low risk of active intervention that could not safely be administered in a non-ICU setting

- **"Too sick" to benefit from ICU care**
  - Acute irreversible multi-organ failure and anticipated poor prognosis
  - Chronic terminal and irreversible illness facing imminent death
  - Brain dead in terms of legally defined criteria
  - Post cardiac arrest
  - Not re-established a normal respiratory pattern or achieved full level of conscious without sedation
  - Fixed dilated pupils not due to medication
  - Resulting from an in a progressive decline in physiologic function
  - Cause that is not immediately reversible
  - Irreversible brain damage
  - Chronic renal failure with or without chronic renal replacement therapy (RRT)
  - Chronic liver disease
  - End stage cardiac failure
  - Chronic debilitating pulmonary disease
  - Incurable malignancies
  - Malignancies not responding to therapy
    - Patients with poor premorbid function as per Clinical frailty score (CFS), see below
      - CFS 1-4 to be assessed in clinical context
      - CFS 5-9 not for ICU admission

Western Cape Provincial Critical Care Triage and Decision Tool

Western Cape Government
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Appendix 2

Referral of any patient to ICU (COVID-19 & non-COVID-19)

Does the patient require critical care and ventilatory support?

NO → Management
Non-COVID: High Care/ Ward
COVID: Isolation ward

YES

Has the patient expressed wishes NOT to be admitted to ICU?

YES → Management Plan (excluding ICU)

e.g. Isolation COVID-19 ward.
Advise on O_2 therapy, IPC.

e.g.non-COVID-19 patient in HCU/ward

Early end-of-life discussion with next –of-kin

Refer to Palliative Care Team if available

Refer to Association of Palliative Care Practitioners guidelines

NO

Is the patient likely to benefit from being admitted to ICU?
Review exclusion criteria

NO → Discuss with referral center at earliest opportunity

YES

Calculate Priority Score = Point in A + B + C + D

Max = 15 points. Minimum = 1 point
Co-Morbidity: Only 1x score given for the worst co-morbidity

	1	2	3	4
A. Acute illness score	**SOFA < 6**	**SOFA 6-8**	**SOFA 9-11**	**SOFA ≥12**
B. Age	**No score**	**65-75 years**	**>75 years**	**No score**
C. Baseline Functionality score	**No score**	**No score**	**Clinical Frailty Score = 4**	**Clinical Frailty Score =5 (>5 Exclusion criteria)**
D. Co-morbidity score **Save the most life-years** **Choose the worst category column for the patient.** **A single point (the worst) is allocated for the Co-Morbidity Score.** **Therefore; if a patient has more than one co-morbidity, only the worst one will determine the point.** **ECOG should be used for patients with malignancy**	***Co-morbidities*** • COPD mMRC 1 (chronic lung diseases) • Hypertension, DM, ischaemic heart disease (IHD) • BMI ≥35 • Chronic cardiac conditions not requiring surgery: chronic AF, valvular lesions, known heart failure NYHA 1	• ***Co-morbidities (+/- 10-year mortality risk)*** • COPD mMRC 2 (chronic lung diseases) • Chronic renal failure (GFR 31-59ml/min) • Chr heart failure/ IHD NYHA 2 • Patient on chronic immunosuppressive drugs (prednisone, DMARDs, etc.) • Macro-vascular disease: Stroke, IHD with previous CABG, PVD • Previous cardiac surgery requiring regular follow up • Malignancy with ≤10 year expected survival • Mild dementia • ECOG 1	***Co-morbidities (+/- 5-year mortality risk)*** • COPD mMRC 3 (chronic lung diseases) • Known atherosclerotic peripheral vascular disease and amputation, • 75+ yrs with hip fracture • HIV: Detectable viral load, CD4 ≤ 200, on cotrimoxazole prophylaxis • Malignancies with ≤5 year expected survival • Moderate Dementia • Chronic end-stage renal disease (GFR 16 - 30 ml/min) • Liver cirrhosis with history of decompensation • ECOG 2	***Severely life-limiting conditions; death likely within 1 year:*** • Chronic end-stage renal disease (GFR ≤ 15 ml/min) • Dialysis • All cancers with ≤1 year expected survival, • Chronic heart failure/IHD NYHA 3 • Liver Cirrhosis: MELD ≥ 20 • ECOG 3 or >4 • High spinal lesion above C5

RED 1-3
Highest priority for ventilatory support

ORANGE 4-6
Intermediate priority for ventilatory support

YELLOW 7-9
Low priority for ventilatory support

GREEN 10-15
Lowest priority for ventilatory support. Palliation strongly suggested

Admit referrals sequentially from red to orange to green groups. If there are ties within a specific group, tie breakers will be used to prioritize patients.
1. Patient age groups (years) in following order: 12-40; 41-60; 61-75; > 75.
2. Individuals whose work supports provision of healthcare and essential services to others
3. Lower priority score from above

Patients triaged to not receive ICU bed/ ventilation

Transfer to Appropriate Site
- COVID-19 patients in Isolation ward
- Non-COVID-19 patients in high care/ other site

Management Plan excl. ICU
- Medical care incl. intensive symptom management
- Advise on O2 Rx, IPC
- Psychosocial support.
- Discuss end-of-life issues with next-of-kin

Reassess daily for changes in resource availability or changes in clinical condition

Improvement in clinical status and/or resource availability

Re-classify

NO

End-of-life care

Palliative Care Team to provide additional support/advice

No response or worsening

RE-REFER

DETERIORATION

Western Cape Provincial Critical Care Triage and Decision Tool

Western Cape Government
BETTER TOGETHER.

Assess all patients admitted to ICU at 48 hours and every 24 hours thereafter
Quantify changes in patients' conditions
Reclassify according to recalculated SOFA scores;
Assess for new complications

RED 1-3
Highest priority for ventilatory support

ORANGE 4-6
Intermediate priority for ventilatory support

YELLOW 7-9
Low priority for ventilatory support

GREEN 10-15
Lowest priority for ventilatory support. Palliation strongly suggested

Continue with critical care and re-evaluate and reclassify every 24hrs

Patients with substantial clinical deterioration & very low chance for survival or reprioritization of resources

Discussion amongst team/ethics committee

and with next-of-kin

End-of-life care

Withdrawal of ventilatory support as per PalPrac guidelines

Palliative Care Team to provide additional support/advice

Exclusion criteria for admission to ICU

- Patient expressed wish not to be admitted to ICU / advance directive
- Clinical Frailty score 6 and more
- ECOG score 4 (Eastern Cooperative Oncology Group)
- Malignancy with < 6 months life-expectancy
- Patient with life expectancy <6 months
- Unwitnessed cardiac arrest
- Severe and irreversible neurological injury (GCS<6: motor score <4)
- Irreversible age-specific hypotension unresponsive to fluid resuscitation and vasopressor therapy
- Severe baseline cognitive impairment (inability to perform ADL)
- Chronic respiratory disease with poor functional capacity – *mMRC* 4
- Cardiovascular disease - *NYHA* 4 or known poor ejection fraction on maximal medical therapy and not candidate for transplantation
- HIV/AIDS with an AIDS defining illness and/or CD4 ≤100 and/or VL ≥10 000 c/ml
- Severe burns with high predicted mortality (Age >60y, >40% BSI)
- Liver cirrhosis and not a candidate for transplantation - Child Pugh >/+7 or MELD ≥20
- Advanced untreatable neuromuscular disease
- Chronic kidney failure in patient not eligible for entry into the transplant programme / dialysis
- Severe dementia with inability to perform executive functions

Sequential (Sepsis Related) Organ Failure Assessment

Score	0	1	2	3	4
Re spira tory					
PaO_2/FiO_2, mmHg	**Norma l**	**< 4 0 0**	**< 3 0 0**	**< 2 0 0 (with re spira tory support)**	**< 10 0 (with re spira tory support)**
Coa gula tion					
Platelets x10/mm^3	**Norma l**	**< 15 0**	**< 10 0**	**< 5 0**	**< 2 0**
Live r					
Bilirubin, mg/dL (µmol/l)	**Norma l**	**1. 2 - 1. 9 (2 0 - 3 2)**	**2 . 0 - 5 . 9 (3 3 - 10 1)**	**6 . 0 - 11. 9 (10 2 - 2 0 4)**	**> 12 . 0 (< 2 0 4)**
Ca rdiova sc ula r					
Hypotension (mcg/kg/min)	**Norma l**	**MAP < 7 0 mmHg**		**Adre na line < 0 . 1 or Nora dre na line < 0 . 1**	**Adre na line > 0 . 1 or Nora dre na line > 0 . 1**
Ce ntra l Ne rvous S yste m					
Glasgow Coma Score	**Norma l**	**13 - 14**	**10 - 12**	**6 - 9**	**<6**
Re na l					
Creatinine, mg/dL (µmol/l) or Urine output	**Norma l**	**1.2 - 1.9 (110 - 170)**	**2 . 0 - 3 . 4 (17 1- 2 9 9)**	**3 . 5 - 4 . 9 (3 0 0 - 4 4 0) or < 5 0 0 mL/ da y**	**> 5 . 0 (> 4 4 0) or < 2 0 0 mL/ da y**

Adapted from Vicent et al, 1996

Western Cape Provincial Critical Care Triage and Decision Tool

Clinical Scores to be used for assessment

Clinical Frailty Scale*

1 **Very Fit** – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

2 **Well** – People who have **no active disease symptoms** but are less fit than category 1. Often, they exercise or are very **active occasionally**, e.g. seasonally.

3 **Managing Well** – People whose **medical problems are well controlled,** but are **not regularly active** beyond routine walking.

4 **Vulnerable** – While **not dependent** on others for daily help, often **symptoms limit activities.** A common complaint is being "slowed up", and/or being tired during the day.

5 **Mildly Frail** – These people often have **more evident slowing,** and need help in **high order IADLs** (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.

6 **Moderately Frail** – People need help with **all outside activities** and with **keeping house**. Inside, they often have problems with stairs and need **help with bathing** and might need minimal assistance (cuing, standby) with dressing.

7 **Severely Frail** – **Completely dependent for personal care**, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).

8 **Very Severely Frail** – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

9. **Terminally Ill** - Approaching the end of life. This category applies to people with **a life expectancy <6 months**, who are **not otherwise evidently frail.**

Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In **severe dementia**, they cannot do personal care without help.

mMRC Breathlessness Scale

This score should be used for patients diagnosed with COPD

Grade	Grade Description of Breathlessness
0	I only get breathless with strenuous exercise
1	I get short of breath when hurrying on level ground or walking up a slight hill
2	On level ground, I walk slower than people of the same age because of breathlessness, or have to stop for breath when walking at my own pace
3	I stop for breath after walking about 100 yards or after a few minutes on level ground
4	I am too breathless to leave the house or I am breathless when dressing

New York Heart Association (NYHA)

This score should be used for patients diagnosed with heart failure

Class	Patient symptoms
I	No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea (shortness of breath).
II	Slight limitation of physical activity. Comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea (shortness of breath).
III	Marked limitation of physical activity. Comfortable at rest. Less than ordinary activity causes fatigue, palpitation, or dyspnea
IV	Unable to carry on any physical activity without discomfort. Symptoms of heart failure at rest. If any physical activity is undertaken, discomfort increases

ECOG Performance Status

This score should be used for patients diagnosed with a malignancy

Class	Patient symptoms
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
2	Ambulatory and capable of all selfcare but unable to carry out any work activities; up and about more than 50% of waking hours
3	Ambulatory and capable of all selfcare but unable to carry out any work activities; up and about more than 50% of waking hours
4	Completely disabled; cannot carry on any selfcare; totally confined to bed or chair
5	Dead

Acknowledgement: This guidelines were developed from the Critical Care Society of South Africa's document on the "Allocation of Scarce Critical Care Resources During the COVID-19 Public Health Emergency in South Africa."

Appendix 3

This document was compiled for the Critical Care Forum of the Western Cape by:

Anna-Lena du Toit RD

Charn de Lange RD

1 April 2020

Nutritional management of patients with SARS-CoV-2 Infection

The following information is based on the guidelines put forward by ESPEN (European Society for clinical nutrition and metabolism).

Nutritional Management of ICU patients:

Pre-intubation period:

Non-intubated patients not reaching nutritional requirements of 25 – 30kCal/kg and 1.3g/kg protein with oral intake alone should be considered for oral nutrition supplements (ONS). ONS should provide at least 400kCal total energy (TE) and 30g or more of protein.

If patients are still unable to meet nutritional goals enteral nutrition should be considered. If the enteral route is not accessible or enteral tolerance is poor, patients should be considered for parenteral nutrition support.

Ventilated patients:

In patients on mechanical ventilation enteral nutrition should be started through a naso-gastric tube as soon as the patient is stable.

In patients not tolerating gastric feeding pro-kinetic agents should be started prior to consideration of a post-pyloric feeding tube.

The prone position per se does not represent a limitation or contra-indication for enteral nutrition. Delay

enteral nutrition support in:

- Patients with uncontrolled shock and unmet hemodynamic and tissue perfusion goals
- Patients with life-threatening hypoxemia, hypercapnoea or acidosis.

Energy delivery should be started incrementally in the first 3 days of ICU admission with the aim to meet full requirements after day 3 of admission. Energy requirements can be estimated using predictive equations or simple weight based equations eg. 25 – 30kCal/kg.

Protein should be delivered at at least 1.3g/kg. Higher protein should be delivered in patients receiving renal replacement therapy to provide 1.5 – 2g/kg protein.

Requirements for obese patients might differ significantly. Use 100kg recommendation as a starting point and discuss with a dietitian as soon as possible.

Patients who do not tolerate full enteral nutrition during the first week of ICU admission should be considered for parenteral nutrition on a case-by-case basis. All strategies to optimize enteral tolerance should be explored prior to initiation of parenteral nutrition. Patients requiring parenteral nutrition support should be referred to a dietitian for nutritional management.

The following quick reference table for enteral nutrition support has been compiled to include enteral feeds available on the government RT9 tender and for use in settings where availability of dietitians is limited.

Patients presenting with diarrhea can be considered for semi-elemental feeds as indicated in the different categories while patients with poor blood glucose control or known diabetics can be managed on diabetic options.

Please consult a dietitian as soon as possible for optimal nutrition support.

Quick reference for Enteral Nutrition Prescription

Nutrition Support for patients with COVID-19			
Enteral feeds providing approximately 1kCal/ml; 40g Protein/L			
Polymeric options	Fresubin Original, Fresubin Original Fibre, Nestle Iso-source, Nestle Iso-source Fibre, Nutrison 1kCal, Nutrison Low Sodium, Nutrison MF		
Semi-elemental options	Nutrison Advanced Peptisorb, Peptamen, Survimed OPD		
Diabetic options	Diben, Nutrison Advanced Diason		
		25kcal/kg;	30kcal/kg;
	15-20kcal/kg	1.0g prot/kg	1.2g prot/kg
Weight of pt in kg	**Day1-2**	**Day 3-7**	**>Day 7**
45	21→→42 ml/h	46 ml/h	56 ml/h
50	21→→42 ml/h	52 ml/h	63 ml/h
55	21→→42 ml/h	57 ml/h	68 ml/h
60	21→→42 ml/h	63 ml/h	75 ml/h
65	21→→42 ml/h	68 ml/h	81 ml/h
70	21→→42 ml/h	73 ml/h	88 ml/h
75	21→→42→→63 ml/h	78 ml/h	94 ml/h
80	21→→42→→63 ml/h	83 ml/h	100 ml/h
85	21→→42→→63 ml/h	88 ml/h	106 ml/h
90	21→→42→→63 ml/h	94 ml/h	113 ml/h
95	21→→42→→63 ml/h	99 ml/h	119 ml/h
100	21→→42→→63 ml/h	104 ml/h	125 ml/h
**This option provides less than the recommended amount of protein for critically ill patients. Consider changing to higher protein options. Possible options for short term use in patients with conservatively managed renal failure.			

Enteral feeds providing approximately 1.2kCal/ml; 100g Protein/L			
Polymeric options	None		
Semi-elemental options	Fresubin Intensive		
Diabetic options	None		
		20kcal/kg;	25kcal/kg;
	15-20kcal/kg	1.5 --- 2.0g prot/kg	>2.0g prot/kg
Weight of pt in kg	**Day1-2**	**Day 3-7**	**>Day 7**
45	Use in low weight patients only under guidance of dietitian due to risk of protein overfeeding		
50			
55			
60			
65	21→→42 ml/h	42 ml/h	54 ml/h
70	21→→42 ml/h	48 ml/h	88 ml/h
75	21→→42 ml/h	54 ml/h	94 ml/h
80	21→→42 ml/h	60 ml/h	100 ml/h
85	21→→42 ml/h	66 ml/h	106 ml/h
90	21→→42→→63 ml/h	72 ml/h	113 ml/h
95	21→→42→→63 ml/h	78 ml/h	119 ml/h
100	21→→42→→63 ml/h	84 ml/h	125 ml/h
**This option provides high amounts of protein/kg. Consult with dietitian as soon as possible.			

Enteral feeds providing approximately 1.3kCal/ml; 60 --- 70g Protein/L			
Polymeric options	Nutrison Protein Plus MF		
Semi-elemental options	Peptamen HN, Survimed OPD HN		
Diabetic options	None		
		25kcal/kg;	30kcal/kg;
	15-20kcal/kg	1.0g prot/kg	1.5g prot/kg
Weight of pt in kg	**Day1-2**	**Day 3-7**	**>Day 7**
45	21 ml/h	36 ml/h	42 ml/h
50	21 ml/h	40 ml/h	48 ml/h
55	21 ml/h	44 ml/h	54 ml/h
60	21→→42 ml/h	48 ml/h	60 ml/h
65	21→→42 ml/h	52 ml/h	66 ml/h
70	21→→42 ml/h	56 ml/h	72 ml/h
75	21→→42 ml/h	60 ml/h	78 ml/h
80	21→→42→→63 ml/h	64 ml/h	84 ml/h
85	21→→42→→63 ml/h	68 ml/h	90 ml/h
90	21→→42→→63 ml/h	72 ml/h	96 ml/h
95	21→→42→→63 ml/h	76 ml/h	102 ml/h
100	21→→42→→63 ml/h	80 ml/h	108 ml/h
**This option @25kCal/kg provides less than the recommended amount of protein for critically ill patients. Consider changing to higher protein options. Possible options for short term use in patients with conservatively managed renal failure.			

Enteral feeds providing approximately 1.5kCal/ml; 60 --- 70g Protein/L			
Polymeric options	Fresubin Energy Fibre, Fresubin HP Energy, Nestle Novosource GI Forte, Nutrison Energy		
Semi-elemental options	None		
Diabetic options	Diben 1.5 HP		
		25kcal/kg;	30kcal/kg;
	15-20kcal/kg	1.1g prot/kg	1.3g prot/kg
Weight of pt in kg	**Day1-2**	**Day 3-7**	**>Day 7**
45	21 ml/h	32 ml/h	38 ml/h
50	21 ml/h	35 ml/h	42 ml/h
55	21 ml/h	38 ml/h	46 ml/h
60	21 ml/h	41 ml/h	50 ml/h
65	21 ml/h	44 ml/h	54 ml/h
70	21 ml/h	47 ml/h	58 ml/h
75	21→→42 ml/h	50 ml/h	62 ml/h
80	21→→42 ml/h	53 ml/h	66 ml/h
85	21→→42 ml/h	56 ml/h	70 ml/h
90	21→→42 ml/h	59 ml/h	74 ml/h
95	21→→42 ml/h	62 ml/h	78 ml/h
100	21→→42 ml/h	65 ml/h	82 ml/h
**This option @25kCal/kg provides less than the recommended amount of protein for critically ill patients. Consider changing to higher protein options. Possible options for short term use in patients with conservatively managed renal failure.			

Enteral feeds providing approximately 1.5kCal/ml; 100g Protein/L			
Polymeric options	Supportan		
Semi-elemental options	None		
Diabetic options	Supportan		
		23kcal/kg;	30kcal/kg;
	15-20kcal/kg	1.5g prot/kg	2g prot/kg
Weight of pt in kg	**Day1-2**	**Day 3-7**	**>Day 7**
45	21 ml/h	28 ml/h	38 ml/h
50	21 ml/h	31 ml/h	42 ml/h
55	21 ml/h	34 ml/h	45 ml/h
60	21 ml/h	38 ml/h	50 ml/h
65	21 ml/h	40 ml/h	54 ml/h
70	21→→42 ml/h	44 ml/h	58 ml/h
75	21→→42 ml/h	47 ml/h	63 ml/h
80	21→→42 ml/h	50 ml/h	66 ml/h
85	21→→42 ml/h	53 ml/h	70 ml/h
90	21→→42 ml/h	56 ml/h	75 ml/h
95	21→→42 ml/h	59 ml/h	79 ml/h
100	21→→42 ml/h	63 ml/h	84 ml/h
**Good option for patients on renal replacement therapy with high protein requirement and fluid restriction. Use 30kCal/kg; 2g/kg option with caustion in patients not on renal replacement therapy. Consult with dietitian as soon as possible.			

Enteral feeds providing approximately 2kCal/ml; 100g Protein/L			
Polymeric options	Fresubin 2kCal HP		
Semi-elemental options	None		
Diabetic options	None		
		25kcal/kg;	30kcal/kg;
	15-20kcal/kg	1.3g prot/kg	1.5g prot/kg
Weight of pt in kg	**Day1-2**	**Day 3-7**	**>Day 7**
45	15 ml/h	23 ml/h	28 ml/h
50	15 ml/h	26 ml/h	31 ml/h
55	15 ml/h	29 ml/h	34 ml/h
60	15 ml/h	32 ml/h	37 ml/h
65	15 ml/h	35 ml/h	40 ml/h
70	21→→42 ml/h	38 ml/h	43 ml/h
75	21→→42 ml/h	41 ml/h	46 ml/h
80	21→→42 ml/h	44 ml/h	49 ml/h
85	21→→42 ml/h	47 ml/h	52 ml/h
90	21→→42 ml/h	50 ml/h	55 ml/h
95	21→→42 ml/h	53 ml/h	58 ml/h
100	21→→42 ml/h	56 ml/h	61 ml/h
**Good option for patients on renal replacement therapy with high protein requirement and fluid restriction. Use 30kCal/kg; 2g/kg option with caustion in patients not on renal replacement therapy. Consult with dietitian as soon as possible.			

Western Cape Government
Health

Office of the Head: Health

Reference: 16/4

Enquiries: Dr K Cloete

TO ALL

SMS MEMBERS

HEADS OF FACILITIES

HEAD OF HEALTH CITY OF CAPE TOWN & PRIVATE HOSPITAL GROUPS

CIRCULAR H79 OF 2020: CLINICAL GUIDELINES: COVID-19 PROVIDING PALLIATIVE CARE

Purpose

This is an evolving document created to provide guidance to health care workers (HCW) on the integration of palliative care (PC) into standard care in intensive care units, hospital wards, emergency departments, out-patient clinics, intermediate care facilities, care homes and private homes.

It must be read in conjunction with, and aims to complement, the DOH Guidelines for the Clinical Management of Suspected or Confirmed COVID-19 Disease (https://bit.ly/2wGFeQB).

It is aimed at ensuring that patients and families receive dignified, compassionate care during this pandemic. *Importantly, the term 'palliative care' does not only describe end-of-life care, but the relief of symptoms and suffering for all, whatever their COVID status or final health outcome.*

Palliative care intends not to hasten or prolong death and must be provided alongside standard care. It is acknowledged that all South Africans currently do not have access to formal PC services in their communities. However, this document aims to provide health care workers with the tools to limit the suffering of patients and their families during COVID-19, aligning treatment decisions with patient and family values whilst also ensuring that the community and health care workers are protected from infection. This type of care may require the same level of intensity as that which is required in an intensive care unit. Palliative care is best provided by interdisciplinary teams that may include palliative care physicians, as well as HCWs who usually focus on standard medical care and psycho-social and spiritual carers in hospitals and in the community.

The purpose of this document is to improve patient outcomes by guiding the care from health care workers in conjunction with mentorship from experienced palliative care providers. Patients with complex palliative care problems and situations are best managed within experienced palliative care teams.

To find a palliative care provider close to you and access valuable resources for PC provision, follow this link to the PALPRAC website: https://bit.ly/2UvLSC8

For further enquiries Professor Ivan Joubert may be contacted at ivan.joubert@uct.ac.za

This circular refers to **CIRCULAR H 67 OF 2020: PROVINCIAL PALLIATIVE CARE POSITION STATEMENT & PLAN FOR COVID-19 RESPONSE**

Yours sincerely

DR KEITH CLOETE

HEAD OF HEALTH: WESTERN CAPE GOVERNMENT

DATE: 14 May 2020

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3 April 2020

Providing Palliative Care in South Africa During the COVID-19 Pandemic

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Introduction:

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This document covers the following topics:

- Ventilatory withdrawal
- Supportive care for patients suspected or diagnosed with COVID-19
- End-of-life care
- Communication at the time of COVID-19
- Hospital-based care for patients with severe symptoms who are not candidates for critical care admission & ventilation if they deteriorate
- Communication in the time of COVID-19
- Care suggestions for long-term care facilities
- Self-care and mental health for HCW

Palliative care for patients who are suspected of having COVID-19 or who are COVID-19 positive

South Africa is a country where resources need to be effectively and fairly allocated in order to provide the right care to the right patients and to ensure all patients receive compassionate and dignified care at all times. Palliative care is a fundamental part of the national response to COVID-19 and can be integrated into the severity scoring as follows, reassessing regularly as the colour code may change:

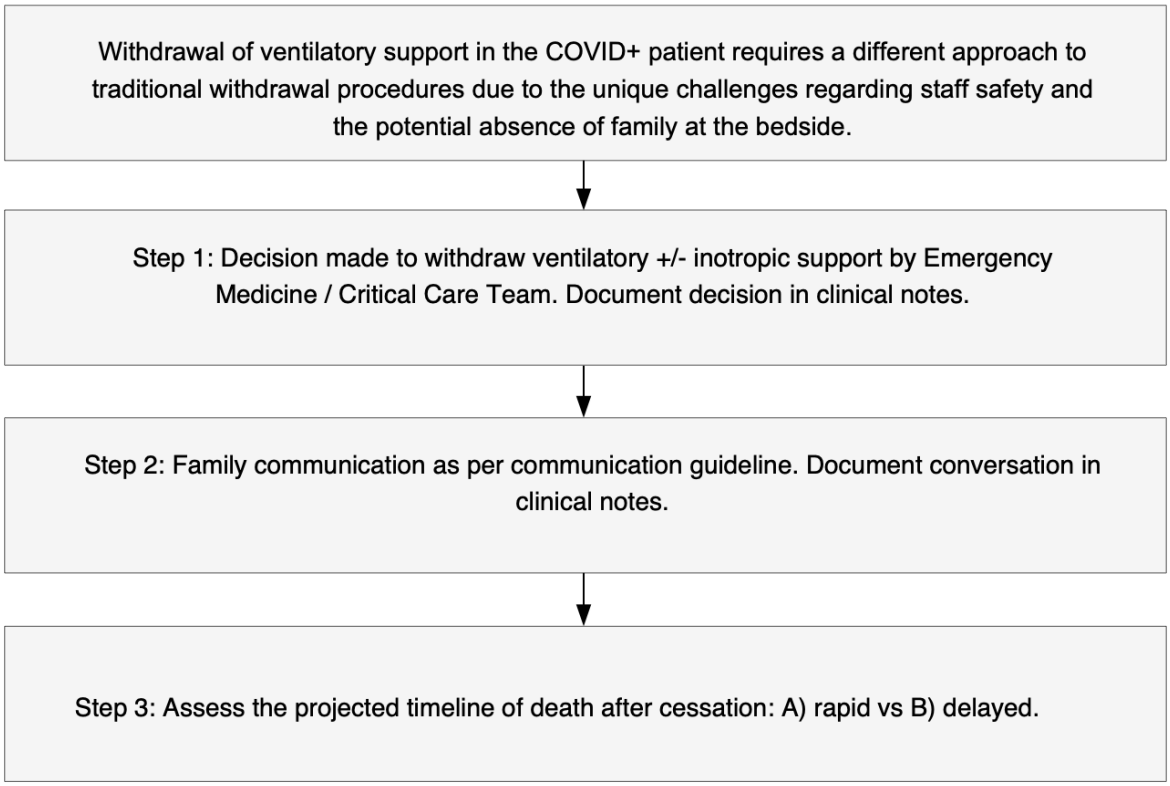
Mild to moderate COVID 19 cases	Less likely to need oxygen	Will need medical care and symptom control if required and psycho-social support.
Severe COVID 19	Less likely to need mechanical ventilation. Likely needs oxygen	Symptom control and psycho-social support of patient and family are needed
Critical COVID 19	Probably needs mechanical ventilation.	Palliative care should be integrated with life sustaining treatment. Psycho-social support of patient and family are needed
Expectant of not surviving	Survival not possible with care available	Urgent palliative care is required

This document focuses on the care of patients where symptoms are significant and/or survival may not be possible with the available resources.

Patients with hypoxemic respiratory failure and ARDS failing ventilation support:

Patients with hypoxemic respiratory failure and ARDS who were initiated on ventilatory support according to the DOH Guidelines for the clinical management of suspected or confirmed COVID-19 disease, but who fail to respond to intensive therapy may need to be considered for withdrawal of ventilatory support. The decision to withdraw ventilatory support is complex and emotive and must be done within the context of a team. Once the decision has been reached by the team, it must be clearly and compassionately communicated to the family. Psycho-social and spiritual support must be mobilised for the family and the HCW. It should be in place for the family and carers of all patients initiated on ventilation.

Procedure for withdrawal of ventilatory support:



Death anticipated to occur rapidly after cessation of mechanical ventilation & inotropic support:

Predictors - high PEEP & F_iO_2 or inotropic requirements or severe acidosis or obtunded.

Approach summary:

1. Gradual scaling down of ventilatory support over 10-30 minutes to allow for the titration of medications to adequately control dyspnoea and anxiety, but not to allow for hastening or prolonging of death. The patient should not be extubated for staff safety.
2. Ensure neuromuscular blockade agents have worn off.
3. Turn off the multiparameter bedside monitor. Further monitoring and management will be symptom-based and not based on vital sign measurement.
4. Stop inotropic infusions.
5. Decrease Pressure Support, PEEP, F_iO_2 every 5 minutes until at $0cmH_2O$ & 0.21 (Room air - 21% oxygen).
6. If on an opiate infusion, continue the infusion to allow titration.
7. Reassess symptoms every 5 minutes whilst titrating down ventilatory setting and administer additional boluses of intravenous morphine; increase the infusion rate if showing signs of breathlessness.
8. Administer bolus of available benzodiazepine if the patient develops restlessness/anxiety.
9. The patient should not be extubated until after death.

Not anticipating rapid death after withdrawal of ventilatory support:
Approach summary:

1. Gradual scaling down of ventilatory support over 10-30 minutes to allow for the titration of medications to adequately control dyspnoea and anxiety, but not to allow for hastening or prolonging of death.
2. Once comfortable, the patient will require palliative extubation. As this is an airway procedure, this poses a significant risk to staff and the procedure needs to be performed wearing the same PPE as per the Provincial PPE Guideline section on intubation procedure.
3. Ensure neuromuscular blockade agents have worn off.
4. Turn off the multiparameter bedside monitor. Further monitoring and management will be symptom-based not based on vital sign measurement.
5. Stop inotropic infusions.

6. Administer Hyoscine Butylbromide (Buscopan) 20mg IVI or Robinul 200mcg IV.
7. Decrease Pressure Support, PEEP, F_iO_2 every 5 minutes until at 3cm H_2O & 0.21 (Room air – 21% oxygen).
8. If on an opiate infusion, continue the infusion to allow for titration – to convert later to a subcutaneous infusion.
9. Reassess symptoms every 5 minutes whilst titrating down ventilatory setting and administer additional boluses of intravenous morphine; increase the infusion rate if showing signs of breathlessness.
10. Administer bolus of available benzodiazepine if the patient develops restlessness/anxiety.
11. Use patient head coverage at the hospital (same as per intubation procedure).
12. Suction airway using in-line closed suction if available; suction mouth; extubate the patient.
13. Convert to subcutaneous medication via bolus or infusion via syringe driver. See conversion in Addendum 2.
14. Provide oxygen via nasal cannula for comfort as required - patient to wear surgical mask over nasal cannula.
15. Move to the general ward or out of ICU/High Care.
16. Continue care as per detailed End-of-Life Guideline.

Hospital-based care for patients with severe symptoms who are not candidates for critical care admission & ventilation if they deteriorate

All patients with underlying chronic illnesses and severe COVID-19 symptoms should be considered for early supportive therapy (supplemental oxygen with or without empiric antimicrobials) as per the COVID-19 Clinical Guidelines section 4.2, unless resources do not allow for this or if the patient or their medical decision maker clearly states that they decline such therapy.

Oxygen therapy:

Oxygen therapy is likely to be the single most effective supportive measure in COVID-19 patients overall. Only a portion of patients with severe COVID-19 symptoms may require critical care and ventilation. The patient should be reassessed daily and triage repeated if the condition and/or circumstances change. As per the COVID-19 Clinical Guidelines, any patient with hypoxaemia (saturation <90%) should be given supplemental oxygen to achieve O2 saturation >90% (aim for >92% in pregnant women).

- *Nasal cannula:*

21-40% oxygen (with surgical mask covering to prevent droplet spread); O_2 dose 1-5L/min

- *Simple face mask:*

40-60% oxygen; O_2 dose 6-10L/min

- *Non-rebreather facemask:*

60-95% oxygen; O_2 flow rate of 10-15L/min; ensure proper fit, to reduce risk of aerosol spread.

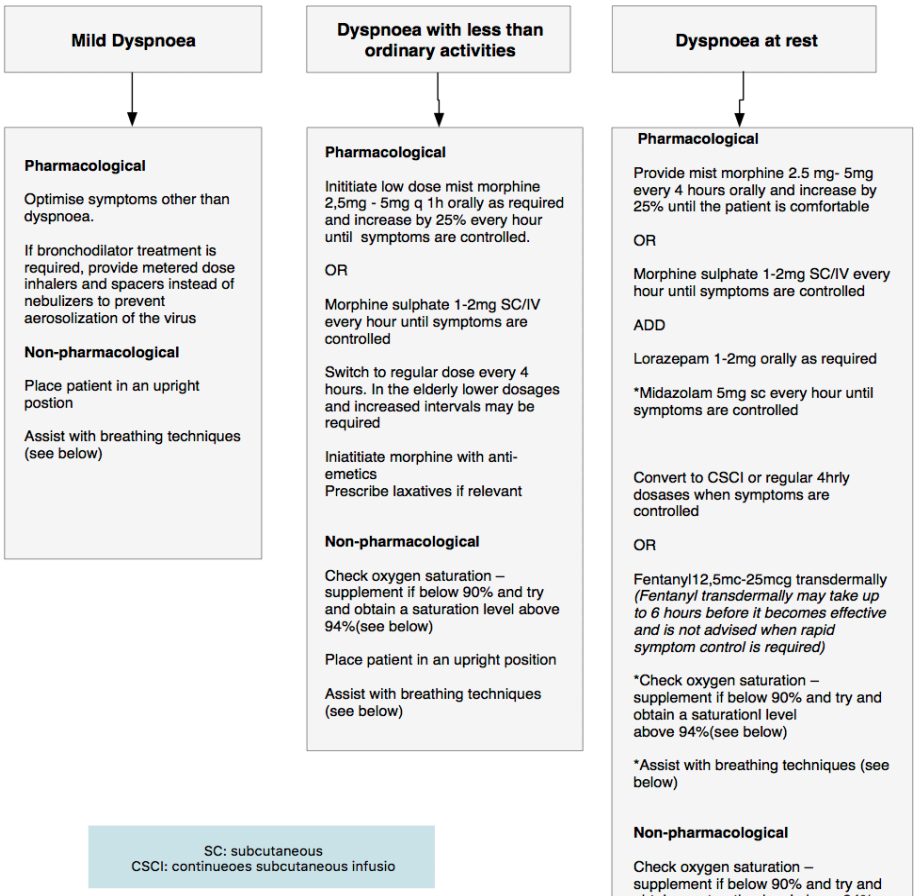
Pharmacological interventions:

Oral route:

This is the simplest and preferred route. Below are the starting doses for each symptom; COVID-19 symptoms might advance rapidly, needing dose escalation.

- *Fever:* Paracetamol 1000mg 6hrly PO PRN
- *Anxiety:* Lorazepam 1mg-2mg s/l q2h prn until patient has settled, then 6-12 hourly or alprazolam 0.5-1mg 8hrly PRN
- *Dyspnoea:* Opioids will assist in respiratory distress - Morphine syrup (Mist Morphine) 2.5-5mg PO 4hrly. Note: the amount of morphine syrup will vary depending on the strength at which it is mixed. This varies from pharmacy to pharmacy and region to region. Common strengths are 5mg/5mL (in which case give 2.5-5mL), 10mg/1mL (in which case give 0.25-0.5mL) or 20mg/5ml (in which case give 0.6-1.25ml).

Table: Flow diagram for management of dyspnoea



<u>IV or Continuous Subcutaneous Route (syringe driver) if patients are unable to swallow</u>:

Below are the starting doses for each symptom; COVID-19 symptoms might advance rapidly, needing dose escalation.

- *Fever:* Paracetamol 1000mg 6hrly IV may be given rather than oral (if available)
- *Dyspnoea:* Give Morphine Sulphate 1-2mg SC/IV and 5mg Midazolam stat SC. Then mix in a 20ml or 50ml syringe: Morphine 15mg, Metoclopramide 30mg, Midazolam 10-15mg, 0.9% sodium chloride or 'water for injection' to fill up to a volume as determined by the device used. Set up to run over 24 hours.
- *Anxiety:* Haloperidol 2-5mg SC stat and add 5mg over 24 hours as a continuous subcutaneous infusion (CSCI).

Alternatives to morphine if available - Fentanyl patch 12mcg-25mcg/h every 72 hours (will need to give subcutaneous Morphine boluses for the first 12-24 hours).

Reassess and adjust rate if the patient is not comfortable or give additional breakthrough doses (2.5mg morphine and 5mg midazolam stat SC or IV).
In the elderly and those with renal failure, start at lower doses.

Subcutaneous route (no syringe driver available) if patients are unable to swallow:

Below are the starting doses for each symptom; COVID-19 symptoms might advance rapidly, needing dose escalation. Subcutaneous bolus doses of medication can be given via an indwelling butterfly/cannula. It will need to be flushed with 0,9% saline after each use.

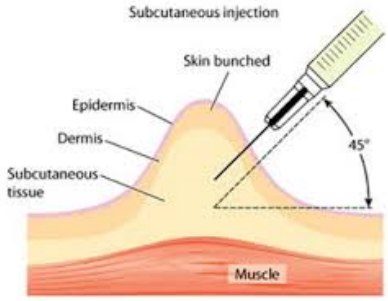
- *Dyspnoea:* Morphine 1-2mg SC q1h; increase dose by 25% if symptoms are not controlled; once controlled switch to regular 4-hourly dosing (typically 1.5-2.5mg 4hrly SC)
- *Anxiety:* Midazolam 5mg SC every hour until symptoms resolved
- *Nausea and vomiting:* Metoclopramide 10mg 8hrly PRN

Alternative to Morphine if available: Fentanyl patch 12mcg-25mcg/h every 72 hours (will need to give SC Morphine boluses for the first 12-24 hours)
Note: Paracetamol cannot be given via this route!

One can also slowly drip mist morphine into the side of the mouth as a last resort.

Securing subcutaneous access:

1. Obtain necessary supplies.
2. Ensure appropriate infection control and use of PPE.
3. Explain the procedure to the patient.
4. Appropriate sites of placement: infraclavicular, lower abdominal wall, anterior thighs or outer aspect of the upper arm.
5. Site should be: easily accessible, free of lesions, away from large vessels, joints and bones, away from edematous tissue that may alter medication/ fluid absorption.
6. Clean skin with an alcohol swab for 15 seconds and allow skin to dry.
7. Remove protective shield from needle.
8. Using thumb and index finger to create a roll of tissue of approximately 2.5 cm, bunch the skin around selected insertion site.
9. Insert the entire butterfly needle (23G) or yellow Jelco (24G), bevel side up, under the skin at an angle of 45 degrees.
10. Jelco: remove the needle and attach a short line; secure your cannula in place with Micropore.
11. Butterfly needle: secure needle in place with Micropore.
12. Attach a 3ml syringe and flush the tubing with normal saline.
13. Cover the insertion site, hub and wings with a transparent moisture-responsive dressing.



Non-pharmacological interventions:

- *Restlessness:* Consider polypharmacy - rationalize medication and discontinue all non-essential drugs; address factors that can agitate a patient (full bladders, constipation, noise, thirst, pain); nursing care; provide patient with sips of water; if mouth care is required, ensure appropriate PPE; keep the patient comfortable according to standard nursing care.
- *Shortness of breath:* Advise patients on breathing exercises and optimal positioning (https://www.youtube.com/watch?v=YmBanu2UHKk); relax shoulders, let them place a hand on their stomach and breathe from their abdomen to their chest; focus on outbreath by controlling it with their hand; ask the patient to lean forward and to concentrate on the outbreath by pursing the lips and slowly breathing out; consider nursing the patient in a

prone position for a part of the day if not contra-indicated or unnecessarily uncomfortable; stay calm with the patient and distract the patient with reassuring conversation; provide as much emotional and spiritual care as possible under the circumstances. See attached 'What to Say' guide for useful phrases when providing comfort.

Management of other commonly experienced symptoms (pain; nausea and vomiting)

See HPCSA Clinical guideline

End-of-Life Care

Patients can be defined as being terminal when there is irreversible decline in functional status prior to death. It is essential during this time to ensure the ethical management of the dying phase and to minimise distress for the patient, family and fellow health care professionals by using a bio-psycho-social and spiritual approach to care.

General measures:

Communication is at the centre of care. The following aspects should be addressed:

- Honest, direct, compassionate and culturally sensitive information about the prognosis (see Conversation Guide).
- Assessment of the patient and family resources and needs, especially spiritual needs.
- Place of death will be determined by the ability to maintain infection control.
- Emergency contact details, especially if the patient wants to go home.
- Compassionate information about symptoms that might develop and how to manage them (see Home Care Guide).
- Nutrition and hydration. Provide sips of water and comfort feeding.
- Discontinue all non-essential, non-beneficial procedures (which you will not act on) and medication, e.g. 4-hourly blood pressure measurements and vitamin tablets.
- Ensure medications are prescribed for symptom management and prescribe, when needed, medication to pre-empt common symptoms during the terminal phase using the appropriate route:
    - *Pain:* If the patient is on Morphine already, then continue; if the patient is unable to swallow, convert to Morphine Sulphate by dividing the total 24-hour dose by 3.
    - *Nausea and vomiting:* see table below
    - *Respiratory secretions:* see table below

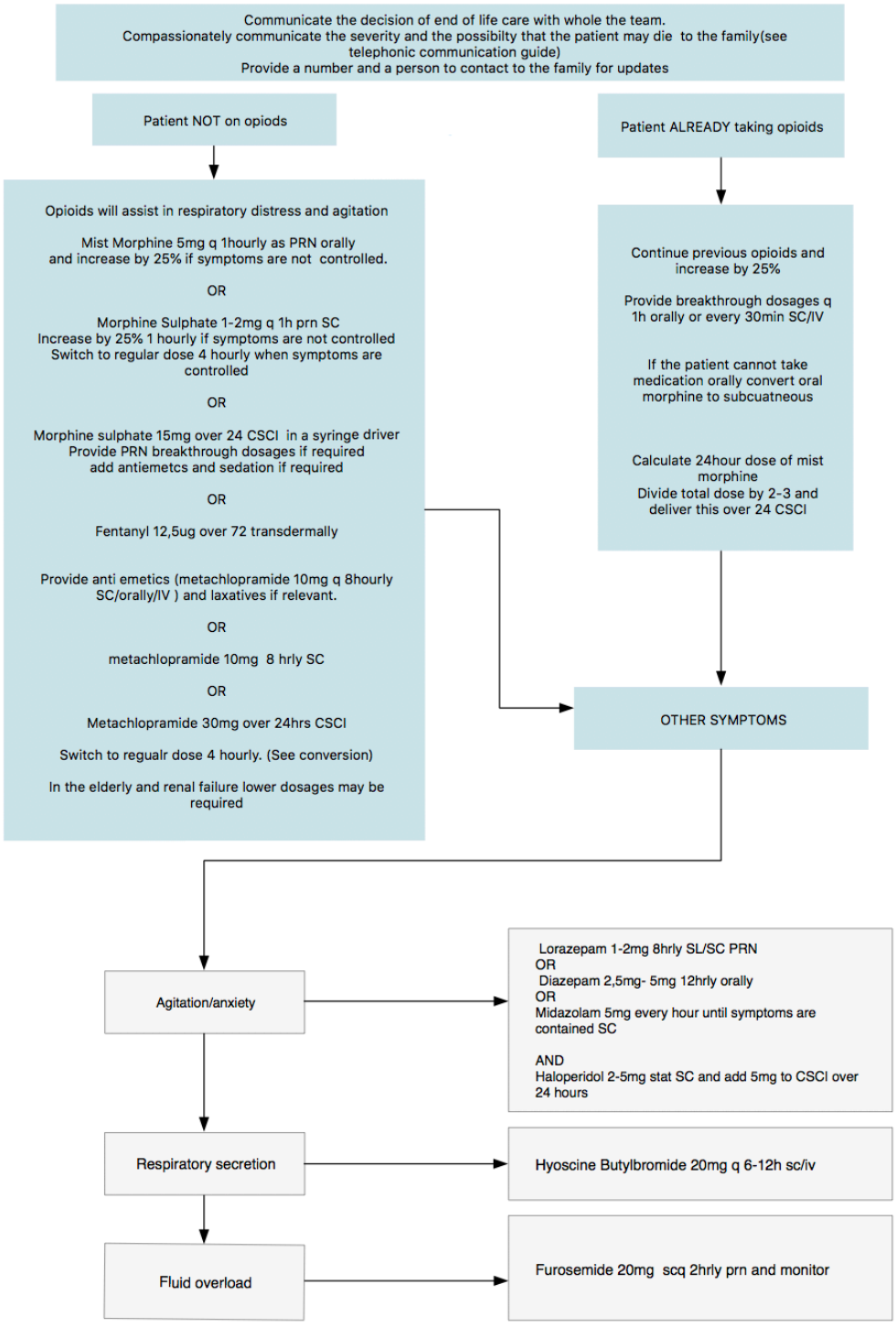
- *Agitation/restlessness/delirium*: see table below

- Feeding and hydration - discuss with the family. If the decision is to hydrate and/or feed, ensure gentle hydration and advise the family that hydration does not improve QOL, survival or symptom burden at the end of life and should not be given as routine management. Rather offer sips of water if the patient is able to swallow.
- Ensure impeccable nursing care.

Source: NICD Environmental health guidelines: https://bit.ly/39vDWoS

Flow diagram of drug dosages for end-of-life care:

End of Life Care for COVID-19 patients
"to care and not to harm"



Communication in the time of COVID-19

Never more than in a time of high anxiety, great medical need and probable rationing of medical intervention, do we require skilled and compassionate communication with our patients, their families and each other.

Important *communication skills* to remember:

- Always start by checking the patient/family member's understanding of the situation and ask what they have been told before. There are often clues for you to use in order to take the conversation forward.
- Give information in small, digestible chunks, avoiding medical jargon.
- Use silence- this allows people to absorb what was said and show emotion.
- Acknowledge emotion: *NURSE* acronym

  *N*ame emotion: 'You seem to be upset/worried?'
  *U*nderstanding: 'Given what is going on, I can understand your concern.'
  *R*especting: 'You have been really patient under difficult circumstances.'
  *S*upporting: 'I understand that this is very hard. We will be here to help.'
  *E*xploring: 'Tell me more, I would like to understand what you're thinking.'
- Never say**:** 'There is nothing more that we can do for you/your mother...'. Commit to excellent symptom management, compassionate communication and your presence.
- Consider linking family telephonically or online to say a final goodbye.
- Consider arranging a tablet or phone in a wipeable pouch for the unit for WhatsApp video calls or equivalent.

Below are a number of communication tips for specific scenarios, adapted for the South African setting from VitalTalk and made freely available during the COVID crisis. You can find more information and the full guide on their website.

Admitting: When your patient needs to be transferred to hospital or the ICU

What they say	What you say
[Patient] How bad is this?	From the information I have now and from my exam, your situation is serious enough that you should be in the hospital. We will know more in the next day, and we will update you.
[Family] Is my grandfather going to make it?	I imagine you are scared. Here's what I can say - because he is 90, and is already dealing with other illnesses, he is sick enough to die. Honestly, it is too soon to say for certain.
[Patient] Are you saying that no one can visit me?	I know it is hard to not have visitors. The risk of spreading the virus is so high that I am sorry to say we cannot allow visitors. They will be in more danger if they come into the hospital. I wish things were different. You can use your phone or request to use our portable phone, although I realize that is not quite the same.
[Family] How can you not let me in for a visit?	The risk of spreading the virus is so high that I am sorry to say we cannot allow visitors. We can help you be in contact electronically via video or phone call. I wish I could let you visit, because I know it's important. Sadly, it is not possible now.

Admitting: When emotions are running high

What they say	What you say
You people are incompetent!	I can see why you are not happy with things. I am willing to do what is in my power to improve things for you. What could I do that would help?
I want to talk to your boss.	I can see you are frustrated. I will ask my boss to come by as soon as they can. Please realize that they are juggling many things right now.
Do I need to say my good-byes?	I'm hoping that's not the case. And I worry time could indeed be short. What is most pressing on your mind?

Deciding: When things aren't going well; goals of care; when the patient is not for ICU or resuscitation

What they say	What you say
I want everything possible to be done. I want to live.	We are doing everything we can. This is a tough situation. Could we step back for a moment so I can learn more about you? What do I need to know about you to do a better job taking care of you?
I don't think my spouse would have wanted this.	Well, let's stop and talk about what they would have wanted. Can you tell me what they considered most important in their life? What meant the most to them, gave their life meaning?
I don't want to end up being a vegetable or on a machine.	Thank you, it is very important for me to know that. Can you say more about what you mean?
I am not sure what my spouse wanted - we never spoke about it.	You know, many people find themselves in the same boat. This is a hard situation. To be honest, given their overall condition now, if we need to put them on a breathing machine or do CPR, they will not make it. The odds are just against us. My recommendation is that we accept that he will not live much longer and allow him to pass on peacefully. I suspect that may be hard to hear. What do you think?

Resourcing: When limitations force you to choose, and even ration. (*NB: these are only to be used when our system goes into crisis mode)*

What they say	What you say
Why can't my 90-year-old grandmother go to the ICU?	This is an extraordinary time. We are trying to use resources in a way that is fair for everyone. Your grandmother's situation does not meet the criteria for the ICU today. I wish things were different.
Should I not be in the ICU?	Your situation does not meet criteria for the ICU right now. The hospital is using special rules about the ICU because we are trying to use our resources in a way that is fair for everyone. If this were a year ago, we might be making a different decision. This is an extraordinary time. I wish I had more resources.
My grandmother needs the ICU or she is going to die!	I know this is a scary situation, and I am worried for your grandmother myself. This virus is so deadly that even if we could transfer her to the ICU, I am not sure she would make it. So, we need to be prepared that she could die. We will do everything we can for her to make sure she is comfortable.

It sounds like you are rationing us.	What we are doing is trying to spread out our resources in the best way possible. This is a time where I wish we had more for every single person in this hospital.
How can you just take them off a ventilator when their life depends on it?	I'm so sorry that her condition has become worse, even though we are doing everything. Because we are in an extraordinary time, we are following special guidelines that apply to everyone here. We cannot continue to provide critical care to patients who are not getting better. This means that we need to accept that she will die, and that we need to take her off the ventilator. I wish things were different. We will make sure that she is comfortable, has no suffering and will make sure she is not alone.

Notifying: When you're telling someone over the phone

What they say	What you say
Yes, I'm his daughter. I am 5 hours away.	I have something serious to talk about with you. Are you in a place where you can talk?
What is going on? Has something happened?	I am calling about your mother. Are you in a place where you can talk? We are doing everything we can for her, and I am worried because she is getting worse.
What is going on? Has something happened?	I am calling about your mother. Are you in a place you can talk? We are caring for her in the best possible way and the breathing machine is not helping. (Silence) I know this is going to be hard to hear. We have to now have to take her off the machine and we are expecting that she might die within (insert timeline)… (Silence) I can imagine not seeing her makes it so much worse. Even though she is not fully awake, would be helpful if I held the phone to her ear so that you can say a few words or I can pass on a message to her.
What is going on? Has something happened?	I am calling about your father. I am afraid I have bad news for you. He was admitted to hospital diagnosed with COVID19. I am sorry to tell you that he died a short time ago.
Crying	I am so sorry for your loss. (Silence) If you feel you must say something: Take your time. I am here.
I knew something was coming, but I didn't realize it would happen this fast.	I can only imagine how shocking this must be. It is sad. (Silence - wait for them to restart).

Anticipating: When you're worrying about what might happen

What you fear	What you can do
That patient's son is going to be very angry.	Before you go in the room, take a moment for one deep breath. What's the anger about? Love, responsibility, fear?
I don't know how to tell this adorable grandmother that I can't put her in the ICU and that she is going to die.	Remember what you can do: you can hear what she's concerned about, you can explain what's happening, you can help her prepare, you can be present. These are gifts.

Managing emotions in ourselves

What I am thinking	What you say
I should have been able to save that person.	Notice: *am I talking myself the way I would talk to a good friend?* Could I step back and just feel? Maybe it's sadness, or frustration, or just fatigue. Those feelings are normal. And these times are distinctly abnormal.
I cannot believe we don't have the right equipment/how mean that person was to me/how everything I do is blowing up in my face.	Notice: *am I letting everything get to me? Is all this analysing really about something else? Look how sad this is, how powerless I feel, how silly our efforts seem?* Under these conditions, such thoughts are to be expected. We don't have to let them drag us down. Can we just notice and feel/share them? Can I step into a less reactive, more balanced place as I move onto the next thing?
I am afraid of burnout, and of losing my heart.	Can you look for moments every day where you connect with someone, share something, enjoy something? It is possible to find little pockets of peace even in the middle of a maelstrom.

VITAL talk

VitalTalk is a 501c3 non-profit social impact organization dedicated to making communication skills for serious illness part of every clinician's toolbox.

End-of-life care for COVID-19 patients at home

Patients with COVID-19 who have become severely, critically ill and who may not qualify for crisis triaging of ICU or hospital beds or ventilation may be directed to stay at home and be cared for in their home setting.

These difficult decisions must be conveyed to the patient and family members in a compassionate manner by a senior clinician with ongoing home support offered. Patients and their caregivers should be given contact details of a local palliative care provider who would be available to guide them through this time. Palliative care providers must be informed of the discharged patient immediately via email or WhatsApp. These contact details are to be provided to the hospitals.

Local hospitals should liaise with the designated palliative care provider, informing them of:

1. The patient's COVID-19 status and laboratory results
2. Their clinical condition
3. Their medical information regarding relevant co-morbidities and ethical decision-making
4. The patient and carer's address and contact details
5. The patient's contact tracing list.

See discharge form required (COVID-19 patient home discharge and palliative care referral)

Supply the discharged patient with a tool kit for home:

- A care package with soap, masks, gloves, plastic refuse bags etc.
- An education pack to be given to the family regarding symptom control – available in all South African languages.
- All palliative medication must be sent from the discharging hospital or clinic; palliative care guidance to be given by the hospital doctor; script to include paracetamol, medication to manage symptoms and anticipatory symptoms.
- A phone number to contact if symptoms are not controlled.
- A home-based care referral.
- Pre-bereavement counselling/contact with a social worker or psychologist on discharge from the hospital.
- Guidance on financial matters e.g. a grant.
- Guidance on childcare.
- Guidance on wills.

Local epidemiology/ DOH authorities need to be informed of the patient returning to their community. At the same time, palliative care providers and home carers/nurses and family need to be adequately protected from contracting the virus.

Management of COVID negative palliative care patients

COVID-19 has been shown to affect the elderly and frail, as well as patients with underlying chronic diseases more severely than others. This may include patients with advanced cancer, end-stage organ failure, AIDS and degenerative neurological diseases. Many of these patients may already be part of palliative care programs or are candidates for palliative care (see guidelines for identifying patients with deteriorating health https://www.spict.org.uk).

Unfortunately, in a severely resource limited setting like the current COVID pandemic, patients suffering from chronic diseases with no prospect of cure may not receive the care they deserve, due to patients with a better prognosis being prioritized above them. It is therefore imperative that we protect these vulnerable patients from being infected with COVID-19, whilst at the same time providing them with optimal symptom control for their existing conditions and ensuring ongoing palliative care according to their preferences and values.

Consider the following aspects of care:

- Be proactive (protect, plan and support).
- Encourage compliance with the strategies of hand hygiene and social distancing.
- Manage distressing symptoms of underlying disease as per the HPCA Clinical Guidelines https://hpca.co.za/Resources/clinical-guidelines/.
- Ensure more than one carer has been identified to help care for the patient and a chain of care has been developed to ensure ongoing care if the main carer becomes infected and needs to self-isolate or be hospitalized.
- All carers and family members should be asked to report if they develop a fever or cough or other symptoms suggestive of COVID-19. This should be done before coming to work or visiting.
- Discuss what the family should do if they observe symptoms suggestive of COVID-19.

Advance care planning

Advance care planning (ACP) involves a dialogue between a healthcare provider and their patient about what might lie ahead with their illness and about how their personal goals, values and preferences can be respected and incorporated in the plan for their care. It is an integral part of caring for patients with serious illnesses or who are nearing the end of their lives, and healthcare providers should prioritize such discussions with their frail or chronically ill patients.

ACP has been shown to lead to care that is more aligned with patients' wishes, reduce the rate of futile, aggressive interventions at the end of life and reduce complicated bereavement in family members. It also provides healthcare providers and family with valuable information when having to make healthcare recommendations and decisions in the future.

In a time of limited healthcare resources like the COVID-19 pandemic such decisions can be particularly difficult to make, so we recommend the urgent implementation of ACP for all patients with serious illnesses or who are nearing the end of their lives. Guidance on ACP can be found on the PALPRAC website by following this link: https://bit.ly/2UPTjTF It might be important to specifically discuss what they would prefer to do (remain at home or go to hospital) if they should develop symptoms of COVID-19. Make a note of the decision and the name of their designated healthcare proxy (decision maker).

Take note that a patient meeting the case definition for COVID-19, who chooses not to report to a healthcare facility or to get tested, is obliged to self-isolate and de-isolate strictly according to the clinical COVID-19 guidelines. The same applies to their carers. If such a patient should die before de-isolation, the body should be regarded as a COVID-19 infected body and be disposed of as per the COVID-19 environmental health guidelines.

Medication, education and resources to ensure quality of life during isolation should be provided. Ensure patients have adequate medication at home to manage current symptoms, breakthrough symptoms and symptoms that might develop in the future

Educate patient and families on:

- Pharmacological and non-pharmacological symptom control for current and future symptoms.
- Hand washing and hygiene
- PPE (if needed)
- Symptoms and signs of COVID-19
- Basic nursing care, if families have to provide this.
- Resources - where to find help if symptoms are uncontrolled.
- Link the patient telephonically to local clinic or hospital unit.
- If possible, offer telemedicine. For basic advice on etiquette, follow this link - Virtual Connection in an age of social distancing by Michael Fratkin.
- See the updated HPCSA guidelines on telemedicine during COVID: https://www.hpcsa.co.za/Uploads/Press%20Realeses/2020/Guidelines_to_telemedicine_in_South_Africa.pdf

- Provide patient and family with telephonic or online psycho-social and spiritual resources (it is best to link with local resources such as local churches and community organisations)

Palliative care patient who develops symptoms of COVID-19

Testing of palliative patients who are bedbound/housebound with possible COVID-19 infection:

In patients with clinical suspicion and contact with a person either confirmed or under investigation for COVID, the NCID PUI form will need to be completed. However, many palliative care patients will not be able to visit testing sites. The need for further testing will need to be determined by health authorities.

These are some suggestions for managing *adult patients currently receiving palliative care outside of a hospital context* during the COVID-19 epidemic:

- Discuss what the family should do if they observe symptoms suggestive of COVID-19.
- Explain that 80% will develop a mild illness, 15% will develop severe disease and 5% become critically ill and may die.
- The severity of COVID-19 infection increases with age and with the severity of any underlying medical co-morbidity.
- Symptoms of COVID-19 infection can escalate quickly, and decisions regarding escalation of care must be discussed early and are best not made in the midst of an escalating crisis.

***For those with mild symptoms**:*

- Start symptomatic treatment with paracetamol for pain and fever.
- Encourage appropriate fluid intake.
- Do not use Ibuprofen or NSAIDs as they have been implicated in aggravating the condition of some patients with COVID-19[1].
- Explain that your patient should remain in one room until better and have exclusive use of one bathroom, if possible. These rooms should be well ventilated (open windows and an open door). Limit the movement of the patient elsewhere in the house and ensure shared spaces e.g. kitchen and bathroom are well ventilated.
- Household members to maintain a distance of at least 1m (preferably 2m) from the ill patient. Limit the number of caregivers; ideally caregivers should be in good health with no underlying chronic or immunocompromising conditions. Non-essential visitors should not be allowed.

- Encourage hand washing, masks, appropriate disposal of tissues, dedicated crockery and cutlery, cleaning of surfaces with 0.1% hypochlorite or similar cleaning agent. Refer to the WHO guideline "Home care for patients with suspected COVID-19 infection".
- Patients should be encouraged to wear a medical mask to contain respiratory secretions. If this is not feasible or not tolerated, cover the mouth and nose with disposable paper tissue when coughing or sneezing, and discard immediately after use. If handkerchiefs are used, wash after each use with soap and water.
- Arrange for a family member to report progress to you on a daily basis using WhatsApp.
- Warn of possible sudden deterioration.

For those with worsening symptoms:

- Refer to hospital if the patient and family request this. Notify the hospital and follow their protocol for triage and admission. Keep up to date with the availability of beds in your local hospital and their admission criteria.
- If the patient wishes to remain at home, continue supportive palliative care:
  - low dose (5ml) oral morphine 4-hourly for *dyspnoea* if not already on opioids.
  - consider home oxygen if this is feasible and practical in the home environment.
  - consider an antibiotic if a secondary bacterial infection is suspected, but only where this meets the goals of care.
  - sublingual Lorazepam (Ativan, Tranqipam) 1-2mg as required if *restless***;** repeat at 10-minute intervals until peaceful.
  - patients that are unable to swallow will need to be given medication via a *syringe driver* or, if that is not available, via *intermittent subcutaneous injection*.
  - Morphine and Midazolam should be given in appropriate doses, as discussed in the clinical management above.
- Refer for counselling and spiritual guidance if appropriate.

The dosages will vary depending on the patient's current prescription and needs and discretion of the clinician. Throughout this time, provide appropriate information regarding your assessment and the possible future scenarios. We are in a time of great uncertainty and significant risk. Patients and families appreciate doctors who are willing to listen to their fears and provide adequate information and guidance.

- Download family guide to using oral morphine at home.

Protection for healthcare providers in the community

Refer to the WHO guideline "Rational use of personal protective equipment for coronavirus disease (COVID-19)". The recommendations differ according to the setting, personnel and type of activity involved. It is important to note that basic protection and excellent hand hygiene is all that is required in day to day interactions with asymptomatic patients. Wear a medical mask if you have respiratory symptoms.

Here are some *guiding principles around PPE* for healthcare workers when caring for palliative patients in the home with known or suspected COVID-19:

1. Wear gloves, a surgical mask and perform hand hygiene after disposing of the mask.
2. Doctors and patients must stay at least 1m, and preferably 2m, apart except during examinations.
3. If tolerated, the patient needs to wear a surgical mask.

Note: N95 masks, face-protectors, goggles and gowns are reserved for procedures where respiratory secretions can be aerosolized such as intubation in known or suspected cases of COVID-19.

What if you have been in contact with an infected person:
Self-quarantine was advised in Hong Kong when contact was within 2m of a patient for >15 minutes; in Singapore that would be for >30 minutes. If exposure <15 minutes, but within 2m for >2 minutes, keep working but wear a surgical mask and have your temperature checked twice a day. If you have brief, incidental contact, you should monitor yourself.

Long-term care facilities

***Know your residents**:*

- Ensure all medical information is known to the staff and medical records are easily available.
- Ensure all residents have an advanced care plan in place.
- Ensure family contact details are correct and available.
- Ensure the highest standards of hygiene, sanitation, laundry and waste management are in place. See the WHO Infection Prevention and Control guidance for Long-Term Care Facilities in the context of COVID-19 (interim guidance document, 21 March 2020) https://apps.who.int/iris/bitstream/handle/10665/331508/WHO-2019-nCoV-IPC_long_term_care-2020.1-eng.pdf

***Prospective surveillance for residents and staff**:*

Residents

- Assess each resident twice daily for fever >38C, cough and shortness of breath.

- Immediately report fever and respiratory symptoms to clinical staff.
- Staff
- Educate staff on signs and symptoms of COVID-19.
- Staff should stay at home if they had close contact with a COVID-19 positive member.
- Staff should stay home if ill and symptomatic (response to COVID-19 infection - see guideline above).

***General considerations for care**:*

- Older people, especially in isolation and those with cognitive decline, dementia, and those who are highly care-dependent, may become more anxious, angry, stressed, agitated and withdrawn during the outbreak or while in isolation.
- Provide practical and emotional support through informal networks (families) and health care providers.
- Regularly provide updated information about COVID-19 to residents, employees and staff.

***Support for healthcare workers and caregivers**:*

- As much as possible, protect staff from stress both physically and psychologically so they can fulfil their roles, in the context of a high workload and in case of any unfortunate experience as a result of stigma or fear in their family or community.
- Regularly and supportively monitor all staff for their wellbeing and foster an environment for timely communication and provision of care with accurate updates.
- Consider rest and recuperation and alternate arrangements as needed.
- Mental health and psychosocial support and psychological first aid training can benefit all staff in having the skills to provide the necessary support in the LTCFs.
- Staff need to ensure that safety measures are in place to prevent excessive worries or anxiety within the LTCFs.

Carer guidelines

COVID-19: GUIDANCE FOR CARE GIVERS

Your work is important and greatly appreciated! THANK YOU!

CORONA VIRUS (COVID-19) is mainly spread by droplets from the lungs of infected people who sneeze and cough. These droplets can land on the surfaces around us and infect others.

The most common symptoms are fever, tiredness, and dry cough. Some patients have aches and pains, nasal congestion, runny nose, sore throat or diarrhoea.

Although most people have mild infection and recover completely, it must be taken seriously as many people can catch it and some will die.

PROTECTING YOURSELF & YOUR FAMILY	PROTECTING YOUR PATIENT
HAND WASHING - frequent and thorough Use soap and water for 20sec or certified handsanitiser or handwash.	STAY AT HOME IF YOUR FEEL UNWELL
COVER YOUR COUGH WITH TISSUE OR ELBOW Dispose of tissues in closed plastic bag	PERSONAL HYGIENE
KEEP AT LEAST 1m away from others who are coughing and sneezing	WASH CLOTHES EVERY DAY
AVOID TOUCHING YOUR EYES, NOSE + MOUTH	CHANGE CLOTHING ON ARRIVAL
CLEAN SURFACES FREQUENTLY using soap + water or Jik, Paper towels or cloths soaked in JIK, dried in the sun.	HAND WASHNG
AVOID CROWED PLACES	CHECK YOUR TEMP
REDUCE TRAVEL – sleep in if possible	CLEAN SURFACES AROUND PATIENT
AVOID CROWDED TRANSPORT	**WEAR APRON** when cleaning or turning patient
CARRY HAND SANITIZER	**WASTE MANGEMENT** - closed plastic bag
	MASKS only needed if patient has infectious illness (check with Sister or Doctor)

Download this carer handout in colour.

Also see these links for guidelines:

- https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125
- Western Cape DOH: https://www.westerncape.gov.za/department-of-health/health-workers

The Wellbeing of Healthcare Professionals

When caring for patients with life-threatening illnesses or for those who are at the end-of-life, you as a health care practitioner are constantly faced with the suffering and distress that your patients and their families are experiencing. As members of a people-centred care profession we are constantly striving to

reduce our patients' distress by giving them the best standard of health care that we can. Under normal circumstances we as healthcare professionals find that the demands of our work often exceed our inherent resources on the physical, emotional, psychological and spiritual levels.

In addition to this we have had limited formal training on how to practice self-awareness and to care for our own well-being. In fact, our training rewards characteristics like self-sacrifice, infallibility and not expressing our own emotions - be it anger, frustration or sadness. When pushed to the limits, these seemingly noble attributes can easily transform into feelings of resentment and deprivation. The consequences are self-entitlement, a conspiracy of silence around our shortcomings and errors and a sense of intense isolation and loneliness because our own emotions are never acknowledged.

Burnout is described as a 'mental state that arises from prolonged interaction with the unrelenting demands of one's work environment' and is characterized by:

1. exhaustion, where you find yourself depleted of physical energy, emotional strength and spiritual resources
2. feelings of cynicism, depersonalization and indifference towards others
3. a loss of purpose and a sense of failure as a professional and as a person

In healthcare practitioners, burnout has been linked to suboptimal patient care, medical error and reduced productivity, but more importantly it leads to reduced self-awareness, self-neglect, absence from work, depression and physicians leaving the profession. It is important to recognise that the presence of burnout itself is not a psychiatric disease. However, burnout may be associated with depression, substance abuse and suicidal ideation. *Make sure that you are able to recognize your own signs of burnout and act on them.*

Burnout in health care professionals can be caused by internal and external stressors as listed in the table below. It is possible to reduce some of our external stressors through careful analysis and re-organization of our workflow, work-environment and staff complement. Such changes require buy-in from employers and institutions and often take time to manifest. Some external and most internal risk factors for burnout can however only be mitigated through a personal commitment to self-awareness and self-care; *recognizing the aspects of your work that drain you, knowing how to reduce their draining effect and making time to do the things that replenish your resources.*

Internal	External
• Crossing of boundaries in doctor-patient relationships • Compassion fatigue • Cumulative grief (Multiple losses or deaths over a short time span) • Conversations that elicit emotion (Breaking bad news, Advance care planning, conflict resolution) • Countertransference • Lack of sense of control over events • Unable to access or utilize personal support structures (life-partner, family, friends) • Ethical dilemmas • Lack of sleep, exercise and a healthy diet • Lack of experience, skills, knowledge and mentorship • Attribution of achievement to chance or others rather than one's own abilities • Passive, defensive approach to stress and conflict • Lack of career fit or job dissatisfaction • High expectations of self to transform institutional, clinical and social culture • Inability to adapt to change	• Risk of personal physical harm • Inadequate supervision • Red tape/ paperwork • Shift-work • Staff shortages • Limited resources • Excessive overtime • Conflict between colleagues • Role blurring • Disorganized work environment • Abuse in the workplace • Inconsiderateness amongst colleagues • Inadequate remuneration • Workload

In the context of a global healthcare disaster like COVID-19, all these risk factors for burnout are amplified, but 3 of them bear special mention in the context of palliative care, namely cumulative grief, compassion fatigue and countertransference. Besides the medical care palliative care patients require, there is also a significant emotional component to their care – sometimes hidden and often disregarded in terms of its impact on the HCP.

Compassion fatigue:

A mental condition resulting from prolonged exposure to human suffering, particularly in persons working in people-orientated service professions who witness physical, emotional and mental pain on a daily basis as part of their job. It can manifest as exhaustion, irritability or emotional unavailability. In the setting of war and conflict, much like the current COVID pandemic, it is related to the witnessing of multiple deaths, senseless killing and seeing the

devastating often long-term effects that war has on surviving individuals and societies. Compassion fatigue evolves specifically from the relationship between the practitioner and patient or family. It has been seen as the cost of caring for those in emotional pain and is also known as vicarious or secondary traumatization.

Cumulative grief:

Defined as an intense form of grief resulting from experiencing multiple losses within a relatively short space of time without the opportunity to deal with each loss separately, thus leading to an individual suppressing their own grief response and simply carrying on. In the field of palliative medicine these losses are experienced at the death of a patient but also when children lose a parent, when we are unable to provide our patients with the kind of "good death" that they hoped for or when we see a family fall apart due to illness. And even though there may be recognition that we as doctors experience grief in response to these events, this is largely seen as an individual feeling which must be dealt with on a personal level. Not being afforded the time or space to express one's own grief can lead to feelings of numbness, dehumanization and guilt. This type of silent mourning can become a source of chronic stress that leads to burnout and decreased effectiveness.

Countertransference:

Defined as the emotional reaction evoked in the carer, in response to the patient's disease, problems, behaviour or feelings. This is individually determined by your unique history, your sense of self as a person, your role in your family or society or perhaps by how you came to work in this field. Caring for patients with life-threatening illnesses can force us to face our own mortality, deal with unexamined regrets or unresolved feelings from a previous experience of loss. Every dying patient can represent an opportunity to make up for past failure where we might have been unable to provide compassionate care for someone who was dying.

It can also manifest as having the need to have patients understand and experience the situation exactly as you do. It is not 'wrong' or bad to feel these feelings, on the contrary, they represent a very normal response to bearing someone else's suffering. What is important is your awareness of the feelings, and the choices you have about what you do with them. If you are conscious of them, you will be less likely to feel guilty, criticize yourself, be angry or label the patient unnecessarily. Not recognizing these reactions as countertransference, will be unhelpful for the patient, and for yourself. Through self-awareness you can evaluate whether these reactions are your own uncomfortable feelings, or a clue to what the patient may be feeling.

We are unsure of the duration of the COVID-19 'season' and we need to ensure that we are going to be here at the start and the finish. We are expecting 20% of us to get infected and thus we are working on the premise

that only 80% of staff will be at work. Below are a number of things that you can do today to stay healthy, both in body, mind and soul.

Teamwork:

Working as part of a team can play a significant role in reducing the draining effect of these risk factors for burnout. The members of a team work together towards a common goal and each member, especially when the team consists of HCWs from different professional backgrounds, brings a different skill set to the table. These skills can be utilized to share the burden of decision-making, find creative solutions to complex patient and family problems and provide a safe space for confidential debriefing after a particularly draining event. Successful teams prioritize communication between its members and between the team and the patients and families they care for. They ensure a pragmatic balance between clear role-definition and the flexibility to take over or share tasks and leadership roles if the need arises. Team members provide emotional and psychological support for each other and monitor each other for signs of stress and burnout.

Learn to use the right words:

Difficult conversations that involve emotions can be extremely draining on health care professionals. By teaching yourself a few skills your interactions with patients in families can become less daunting and more gratifying for all involved. See section on Communication in the time of COVID-19.

Self-care and mental health:

Physical Care:

- Eat a healthy diet (low in sugar) and drink sufficient fluids.
- Sleep between 6-8 hours per day.
- Exercise regularly.
- Practice good personal hygiene at work and don't forget on your way home and at home.
- Remove your second pair of clothes outside the house or in the garage, leaving shoes outside.
- Shower before spending time with your family.
- Ensure you protect those at home, who are high risk.

Mental Health:

- Many of us are already suffering with Anxiety and Depression - DO NOT STOP your chronic medication.
- Be aware of your own stress levels and know your limitations.

- Be aware of your own losses (of normality; loss of free time) and be aware of your own grief for patients.
- Acknowledge that you are human and your experience of this pandemic.
- Take breaks from the work by spending time with family; make time for relaxation.
- Identify things that give your strength and enjoyment.
- Seek help early if you need guidance or to talk to someone. There is the Metropolitan Employee Health and Wellness program (0800 611 093) and find out about other mental health services available at this time at your facility.
- Seek professional help if you need it.

Social Health:

- Do not emotionally isolate yourself during this time - communicate with colleagues, friends and family.
- Use WhatsApp, video calls and skype and check in on each other.
- Communication is critical.

Spiritual Health:

A pandemic like this often pushes one to the limits and we look within ourselves and search for meaning in all of this.

- Maintain your spirituality.
- Know your values - what gives you meaning, purpose and hope
- Practice gratitude and take time to reflect.
- Keep in contact with your religious and cultural groups.

See these links for further guidelines:
https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf
https://www.facebook.com/northbrisbanepsychologist/videos/2962907510419354/

Management of the deceased

Please see: Circular H 41 of 2020: COVID-19: Management of the deceased in the Western Cape.

Addenda

Addendum 1: PATIENT AND CARER INFORMATION SHEET FOR WHEN END-OF-LIFE CARE WILL TAKE PLACE AT HOME

We would like to give you some information to help you during this very difficult time. Your ongoing support and care are very important to us.

You have been asked to care for someone who is very ill, but is also infected with a dangerous virus (Coronavirus) that could potentially cause you to become ill if safety precautions are not followed.

General Health and Safety Precautions:

- Wear a mask covering your mouth and nose. When your loved one coughs or sneezes, the virus particles can spread through the air and will infect you if you breathe them in.
- Wear gloves (if available) or cover your hands with plastic packets and then dispose of them. If the virus gets on to your hands and you touch your eyes, nose or mouth, you will become infected.
- Wash your hands thoroughly with soap and water for 20 seconds after touching or being in the same room with your loved one.
- Wipe down all hard surfaces with a cleaning agent several times a day. The virus particles can settle and stay on surfaces for up to 9 hours. Touching these surfaces and then your eyes, nose or mouth might spread the virus to you and your other family members.
- It is best for the ill person to stay in a room by him- or herself and not be allowed to move around the house. Visitors should be strictly limited – only the person/s caring directly for the ill person and those closest to him/her should be exposed.
- Keep crockery, cutlery, linen and clothing that your loved one uses separate from the rest of the household. Clean them thoroughly with soap and water.

What to expect from the coronavirus:

There is still no known cure or vaccine for this virus. Thus, as the virus continues, your loved one will become more ill and may display the following symptoms:

- Ongoing high fevers with possible sweating and trembling.
- They may be very thirsty initially; but will not be able to tell you this as they become more unwell.

- Their mouth may become very dry, with their lips cracking, their tongue becoming fuzzy and their mouth smelling bad.
- Their cough may become more frequent and severe, preventing them from sleeping at night.
- They might cough up blood.
- Worsening tiredness with inability to walk to the bathroom, sit up or move around in bed.
- They may be very short of breath, even too breathless to speak. The slightest movement may make it worse, including going to the toilet or changing positions in bed.
- They are unlikely to be hungry and may refuse even small amounts of food and water.
- They will get thinner and weaker because the virus is attacking their bodies and also making them too sick to eat.
- They may develop constipation or even diarrhoea.
- Their circulation will become poor, so their hands and feet may feel colder and their skin will be more vulnerable to pressure sores. These will first appear as dark, pink to purplish areas and may form a blister. The skin will come off, leaving a moist yellowish area which will likely increase in size.

What you can do to help:

- Try and rest when your loved one is sleeping, as their ongoing coughing is likely to keep you awake as well.
- Keep doing everything to prevent yourself from catching the virus. Follow the Health and Safety Precautions above carefully.
- If your loved one will tolerate wearing a mask/scarf/bandana please encourage it. However, when they become more breathless this will be too restrictive and should be removed.
- Make sure there is a breeze in their room, coming from behind you and away from you, to disperse any virus in the air. A flow of air will also ease the breathlessness that your loved one may be experiencing.

For high fever:

- ensure a breeze of fresh air
- use a moist facecloth or sponge to gently wash over the body
- take off unnecessary clothing or linen
- give medicine (Paracetamol 500mg tablets – 2 tablets by mouth every 6 hours)

For increasing shortness of breath, worsening cough or coughing up blood:

- while they are coughing, stay well clear - it is essential to wear something to cover your mouth and nose and even sunglasses over your eyes
- continue to talk calmly to your loved one – try and soothe their anxiety

- inform your palliative care provider who will organize Morphine syrup (a strong painkiller) for your loved one - this will help to ease the breathlessness and cough

For fear and anxiety:
- acknowledge their fears and reassure them that you will continue to support and care for them
- distract them with music or singing
- try and ask about what is causing them to feel this way
- contact people on the telephone if your loved one wants to talk to them – estranged family or friends, their pastor etc.
- if the breathlessness is causing anxiety, then more medication needs to be given - contact your palliative care provider who would be able to give you another tablet for this anxiety with directions for its safe use.

Tablets will become more difficult to swallow. Crush them between two spoons and mix with a small quantity of water or juice to make them easier to swallow.

What to expect towards the end:

If you are struggling to cope with keeping your loved one calm and you feel he/she suffering, please contact your palliative care provider urgently.

Be prepared for your loved one's condition to worsen quickly and unexpectedly – have the contact numbers of support organisations and individuals that you can call close by. Try not to panic. You should not call an ambulance at this time as they won't be able to help.

If your loved one starts to show these signs, they may soon die:
- Extreme difficulty breathing or breathing that becomes irregular and has a rattling sound
- Persistent pain or pressure in the chest
- Increased confusion or sleepiness
- Bluish lips or face

What you can do:
- Continue to speak to your loved one - they can hear you, even if they do not respond
- Moisten their mouth with drops of water and try to position him/her comfortably
- Inform those that care about your loved one

Unfortunately, even after your loved one has died, you and everyone in your household will need to stay in quarantine for 14 days to prevent the virus from spreading to other people in your community.
Download flyer.

Addendum 2: VIRTUAL SUPPORT

Offering know patients support via teleconference or telephone is encouraged during the COVID crises.

- For advise on virtual consult etiquette - Virtual Connection in an age of social distancing by Michael Fratkin.
- See the updated HPCSA guidelines on telemedicine during COVID: https://www.hpcsa.co.za/Uploads/Press%20Realeses/2020/Guidelines_to_telemedicine_in_South_Africa.pdf

Addendum 3: DRUG CONVERSION TABLES

Drug	Conversion ratio from oral morphine	Equi-analgesic dose to 30mg of oral morphine
Mist Morphine (Morphine syrup)	1	30mg
Morphine sulphate (SC)	2 to 1	15 mg
Morphine sulphate (IV)	3 to 1	10 mg

To convert Mist Morphine 60mg in 24 hours to Morphine subcutaneous, divide by 2 to give 30mg over 24hours. If the patient is in renal failure, use lower dosages.

Syringe driver prescription for a patient who has **not** been on opioids:
Morphine 15mg
Metoclopramide 30mg
Midazolam 10-15mg
0.9% sodium chloride or 'water for injection' to fill up the 20-50ml syringe

Infusion rate settings
For 20ml syringe: run @ 0.8ml/h continuously over 24 hours
For 50ml syringe: run @ 2ml/h continuously over 24 hours

Addendum 4: ESSENTIAL EQUIPMENT

- Syringe drivers (Ambulatory syringe pumps)
- Butterfly needles (23G) / yellow Jelcos (24G)
- Webcols
- Micropore
- 50ml, 20ml and 3ml syringes
- Short infusion set
- Normal Saline UDVs for flushing lines

Addendum 5: MEET MY LOVED ONE

During the COVID crises families are likely not able to visit their loved ones on hospital or a care facility. It is also important for the health care facility to have the correct contact details of family members. This flyer allows families to tell health care providers something of their loved ones as well as confirming relevant contact details.
https://palprac.org/wp-content/uploads/2020/04/PALPRAC_MEET-MY-LOVED-ONE_BW.pdf
here in black and white.
https://palprac.org/wp-content/uploads/2020/04/PALPRAC_MEET-MY-LOVED-ONE.pdf
here in colour.