

# MANAGEMENT OF ADULTS WITH SEVERE TO CRITICAL COVID-19



NATIONAL CLINICAL EVIDENCE TASKFORCE

COVID-19

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## FORMS OF GUIDANCE

Evidence-Based Recommendation (EBR)  
Consensus Recommendation (CBR)  
Practice Point (PP)

Types of EBRs

RECOMMENDATION FOR USE

RECOMMENDATION AGAINST USE

CONDITIONAL RECOMMENDATION FOR USE

CONDITIONAL RECOMMENDATION AGAINST USE

## Guiding principles of care

### MONITORING AND MARKERS OF CLINICAL DETERIORATION

#### Monitoring

For people with COVID-19, monitor markers of clinical progression, such as rapidly progressive respiratory failure and sepsis, especially on days 5 to 10 after onset of symptoms.

**CBR** [Taskforce]

### GENERAL

#### VTE prophylaxis

Use prophylactic doses of anticoagulants, preferably low molecular weight heparin (LMWH) (e.g. enoxaparin 40 mg once daily or dalteparin 5000 IU once daily) in adults with moderate, severe or critical COVID-19 or other indications, unless there is a contraindication, such as risk for major bleeding. Where the estimated glomerular filtration rate (eGFR) (see below) is less than 30 mL/min/1.73m<sup>2</sup>, unfractionated heparin or clearance-adjusted doses of LMWH may be used (e.g. enoxaparin 20 mg once daily). **EBR** [Taskforce]

For body weights outside 50-90 kg or heights outside 150-180 cm, calculate the BSA and multiply the eGFR by BSA/1.73. **PP** [Taskforce]

#### Increased-dose VTE prophylaxis

Do not routinely offer therapeutic anticoagulant dosing in **adults with severe or critical COVID-19**. There is no additional indication for therapeutic dosing for anticoagulants in adults with severe or critical COVID-19 beyond current standard best practice. **EBR** [Taskforce]

### MANAGING RISK OF INFECTION

As per the current national guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak:

- use eye protection
- use P2/N95 respirators
- use other PPE as per NHMRC IPC recommendations

**PP** [ICEG; NHMRC]

### DRUG TREATMENTS FOR COVID-19

Refer to the current summaries of drug treatments for COVID-19:

- Drug treatments for adults with COVID-19
- Drug treatments for pregnant or breastfeeding women with COVID-19

These drug treatments should still be considered for other evidence-based indications in people who have COVID-19. **PP** [Taskforce]

### SUPPORTIVE THERAPY

In people who are critically ill, request an influenza PCR test and consider prescribing oseltamivir 75 mg BD (or a renally adjusted dose). If the influenza PCR is negative, cease oseltamivir.

**PP** [Taskforce]

## Treatments

### Definition of disease severity

#### Severe illness

A patient with signs of moderate disease who is deteriorating

OR

A patient meeting any of the following criteria:

- respiratory rate  $\geq 30$  breaths/min
- oxygen saturation  $< 92\%$  on room air at rest or requiring oxygen
- lung infiltrates  $> 50\%$

#### Critical illness

A patient meeting any of the following criteria:

- respiratory failure (defined as any of)
  - severe respiratory failure ( $\text{PaO}_2/\text{FiO}_2 < 200$ )
  - respiratory distress or acute respiratory distress syndrome (ARDS)
  - deteriorating despite non-invasive forms of respiratory support (i.e. non-invasive ventilation (NIV), or high-flow nasal oxygen (HFNO))
  - requiring mechanical ventilation
- hypotension or shock
- impairment of consciousness
- other organ failure

### HIGH-LEVEL AND ADVANCED RESPIRATORY SUPPORT

Refer to **RESPIRATORY SUPPORT FOR ADULTS WITH SEVERE TO CRITICAL COVID-19 Clinical Flowchart**

## Shock

### ACUTE RESUSCITATION WITH FLUIDS

In all patients with severe to critical COVID-19, use a restrictive fluid management strategy, avoiding the use of 'maintenance' intravenous fluids, high-volume enteral nutrition, and fluid bolus for hypotension. **PP** [Taskforce/ANZICS]

In adults with COVID-19 and shock, use dynamic parameters (skin temperature, capillary refilling time, and/or serum lactate measurement) rather than static parameters to assess fluid responsiveness. **PP** [Taskforce/SSC]

For the acute resuscitation of adults with COVID-19 and shock, use buffered/balanced crystalloids rather than unbalanced crystalloids. **PP** [Taskforce/SSC]

For the acute resuscitation of adults with COVID-19 and shock, do not use synthetic colloids. **PP** [Taskforce/SSC]

### USE OF VASOACTIVE AGENTS

In adults with COVID-19 and shock, use noradrenaline as the first-line vasoactive agent. If noradrenaline is not available, use either argipressin (vasopressin) or adrenaline as the first-line vasoactive agent. **PP** [Taskforce]

In adults with COVID-19 and shock, if a target mean arterial pressure (MAP) of 60-65 mmHg cannot be achieved by maximal doses of first-line monotherapy with a vasoactive agent, add a second vasoactive agent. **PP** [Taskforce]

## Therapies for existing indications

### OESTROGEN-CONTAINING THERAPIES

In women who have COVID-19 and who are taking oral menopausal hormone therapy (MHT), manage these medications as per usual care. In women who stop or suspend oral MHT, review the indication for this and consider transitioning to a transdermal preparation. Manage transdermal MHT as per usual care. **CBR** [Taskforce]

In women who have COVID-19 and who are taking oestrogen-containing contraception, manage these medications as per usual care. **CBR** [Taskforce]

In women who stop or suspend contraception when they have COVID-19, restart contraception at the time of discharge or when acute symptoms have resolved. **CBR** [Taskforce]

## Discharge planning

In patients with severe COVID-19, offer appropriate rehabilitation to optimise recovery, including early hospital rehabilitation. Plan transition of care to the community, including handover to general practice. **PP** [Taskforce]

### VTE prophylaxis

Do not prescribe apixaban prophylaxis after discharge from hospital for adult patients who have been hospitalised with COVID-19 unless they have developed a thromboembolic event in hospital, or have another clinical indication to start or re-start prophylactic apixaban therapy. **EBR** [Taskforce]

## Follow up care

- Assist people to connect to a GP if they do not have one.
  - When the acute phase of the illness has resolved, and the patient is mobile, undertake a comprehensive review to assess their ongoing and rehabilitation needs.
  - Review medications that were stopped or started.
- PP** [Taskforce]

### Sources

**ANZICS** - The Australian and New Zealand Intensive Care Society (ANZICS) COVID-19 Guidelines. V3.0, 20 October 2020.

**SSC** - Surviving Sepsis Campaign: Guidelines on the Management of Critically Ill Adults with Coronavirus Disease 2019 (COVID-19)

**ICEG** - Guidance on the use of personal protective equipment (PPE) for health care workers in the context of COVID-19

**National Clinical Evidence Taskforce** - Australian guidelines for the clinical care of people with COVID-19.

**NHMRC** - Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019)