

# DISEASE-MODIFYING TREATMENTS FOR ADULTS WITH COVID-19



	Not requiring oxygen WITHOUT lower respiratory tract disease	Not requiring oxygen WITH lower respiratory tract disease	Requiring oxygen WITHOUT mechanical ventilation	Requiring invasive mechanical ventilation
DEFINITION OF DISEASE SEVERITY	<p><b>Mild</b></p> <p>An individual with no clinical features suggestive of moderate or more severe disease:</p> <ul style="list-style-type: none"> <li>no or mild symptoms and signs (fever, cough, sore throat, malaise, headache, muscle pain, nausea, vomiting, diarrhoea, loss of taste and smell)</li> <li>no new shortness of breath or difficulty breathing on exertion</li> <li>no evidence of lower respiratory tract disease during clinical assessment or on imaging (if performed)</li> </ul>	<p><b>Moderate</b></p> <p>A stable patient with evidence of lower respiratory tract disease:</p> <ul style="list-style-type: none"> <li>during clinical assessment, such as                             <ul style="list-style-type: none"> <li>oxygen saturation 92-94% on room air at rest</li> <li>desaturation or breathlessness with mild exertion</li> </ul> </li> <li>or on imaging</li> </ul>	<p><b>Severe</b></p> <p>A patient with signs of moderate disease who is deteriorating OR</p> <p>A patient meeting any of the following criteria:</p> <ul style="list-style-type: none"> <li>respiratory rate <math>\geq 30</math> breaths/min</li> <li>oxygen saturation <math>&lt; 92\%</math> on room air at rest or requiring oxygen</li> <li>lung infiltrates <math>&gt; 50\%</math></li> </ul>	<p><b>Critical</b></p> <p>A patient meeting any of the following criteria:</p> <ul style="list-style-type: none"> <li>respiratory failure (defined as any of)                             <ul style="list-style-type: none"> <li>severe respiratory failure (<math>\text{PaO}_2/\text{FiO}_2 &lt; 200</math>)</li> <li>respiratory distress or acute respiratory distress syndrome (ARDS)</li> <li>deteriorating despite non-invasive forms of respiratory support (i.e. non-invasive ventilation (NIV), or high-flow nasal oxygen (HFNO))</li> <li>requiring mechanical ventilation</li> </ul> </li> <li>hypotension or shock</li> <li>impairment of consciousness</li> <li>other organ failure</li> </ul>
RECOMMENDED			<p>Use <b>dexamethasone</b> 6 mg daily intravenously or orally for up to 10 days (or acceptable alternative regimen) in adults with COVID-19 who are <b>receiving oxygen</b> (including mechanically ventilated patients).</p>	
CONDITIONAL RECOMMENDATION FOR	<p>Consider using inhaled <b>budesonide</b> <i>within 14 days of symptom onset</i> in adults with COVID-19 who <b>do not require oxygen</b> and have one or more <b>risk factors</b><sup>^</sup> for disease progression.</p>		<p>Consider using <b>remdesivir</b> in adults with COVID-19 who <b>require oxygen but do not require non-invasive or invasive ventilation</b>.</p>	
	<p><b>Consider using one of the following:</b></p> <p>Consider using <b>casirivimab plus imdevimab</b> <i>within 7 days of symptom onset</i> in adults with COVID-19 who <b>do not require oxygen</b> and have one or more <b>risk factors</b><sup>^</sup> for disease progression. #</p>	<p>Consider using <b>casirivimab plus imdevimab</b> in <b>seronegative</b> adults hospitalised with moderate to critical COVID-19. *</p>		
	<p>Consider using <b>sotrovimab</b> <i>within 5 days of symptom onset</i> in adults with COVID-19 who <b>do not require oxygen</b> and have one or more <b>risk factors</b><sup>^</sup> for disease progression. #</p>	<p><b>Consider using one of the following:</b></p> <p>Consider using <b>baricitinib</b> in adults hospitalised with COVID-19 who <b>require supplemental oxygen</b>.</p> <p>Consider using <b>tocilizumab</b> for the treatment of COVID-19 in adults <b>who require supplemental oxygen</b>, particularly where there is evidence of <b>systemic</b></p> <p>Consider using <b>sarilumab</b> for the treatment of COVID-19 in adults who <b>require high-flow oxygen, non-invasive ventilation or invasive mechanical ventilation</b>. *</p>		
CONDITIONAL RECOMMENDATION AGAINST	<p><b>DO NOT</b> routinely use <b>dexamethasone</b> (or other oral or parenteral steroids) to treat COVID-19 in adults who <b>do not require oxygen</b>.</p>			
NOT RECOMMENDED	<p><b>DO NOT</b> use the following for the treatment of COVID-19:</p> <ul style="list-style-type: none"> <li><a href="#">aspirin</a></li> <li><a href="#">azithromycin</a></li> <li><a href="#">colchicine</a></li> <li><a href="#">convalescent plasma</a></li> <li><a href="#">hydroxychloroquine</a></li> <li><a href="#">hydroxychloroquine plus azithromycin</a></li> <li><a href="#">interferon <math>\beta</math>-1a</a></li> <li><a href="#">interferon <math>\beta</math>-1a plus lopinavir-ritonavir</a></li> <li><a href="#">lopinavir-ritonavir</a></li> </ul>			
	<p><b>DO NOT</b> use <b>casirivimab plus imdevimab</b> in <b>seropositive</b> adults hospitalised with moderate to critical COVID-19.</p>		<p><b>DO NOT</b> start <b>remdesivir</b> in adults hospitalised with COVID-19 who <b>require invasive or non-invasive ventilation</b>.</p>	

Note: This flowchart does not apply to people on home oxygen due to pre-existing conditions. Use clinical judgement in these cases.

\* Not approved for use by TGA for this indication.  
 # Efficacy in vaccinated or immunocompromised patients is not known. Consider use in unvaccinated or partially vaccinated patients and patients who are immunosuppressed regardless of vaccination status. Do not routinely use in fully vaccinated patients unless immunosuppressed.  
 ^ See below for risk factors for disease progression.

**DO NOT** use the following for the treatment of COVID-19 outside of randomised trials with appropriate ethical approval:

- anakinra
- angiotensin 2 receptor agonist C21
- aprepitant
- baloxavir marboxil
- bamlanivimab
- bamlanivimab plus etesevimab
- bromhexine hydrochloride
- camostat mesilate
- chloroquine
- combined metabolic activators (CMA)
- darunavir-cobicistat
- doxycycline
- dutasteride
- enisamium
- favipiravir
- fluvoxamine
- human umbilical cord mesenchymal stem cells
- immunoglobulin
- immunoglobulin plus methylprednisone
- inhaled interferon  $\beta$ -1a
- interferon  $\beta$ -1b
- interferon gamma
- interferon kappa plus trefoil factor 2 (IFN- $\kappa$  plus TFF2)
- ivermectin
- ivermectin plus doxycycline
- lenzilumab
- N-acetylcysteine
- nitazoxanide
- peginterferon lambda
- recombinant human granulocyte colony-stimulating factor (rhG-CSF)
- regdanvimab
- ruxolitinib
- sofosbuvir-daclatasvir
- sulodexide
- telmisartan
- tofacitinib
- triazavirin
- umifenovir
- vitamin C
- vitamin D analogues (calcifediol / cholecalciferol)
- zinc
- other disease-modifying treatments

**Budesonide**

Age  $\geq$  65 years or  $\geq$  50 years with one or more of the following comorbidities:

- Diabetes (not treated with insulin)
- Heart disease and/or hypertension
- Asthma or lung disease
- Weakened immune system due to a serious illness or medication (e.g. chemotherapy)
- Mild hepatic impairment
- Stroke or other neurological problem

Note: Risk factors are based on PRINCIPLE trial inclusion criteria

**Casirivimab plus imdevimab** (outpatients with mild COVID-19)

- Age  $\geq$  50 years
- Obesity (BMI  $\geq$  30 kg/m<sup>2</sup>)
- Cardiovascular disease (including hypertension)
- Chronic lung disease (including asthma)
- Type 1 or 2 diabetes mellitus
- Chronic kidney disease, including those that are on dialysis
- Chronic liver disease
- Immunocompromised patients (including individuals with rheumatoid arthritis, HIV/AIDS and systemic lupus erythematosus)

Note: Risk factors are based on REGEN-COV trial inclusion criteria

**Sotrovimab**

- Diabetes (requiring medication)
- Obesity (BMI  $\geq$  30 kg/m<sup>2</sup>)
- Chronic kidney disease (i.e. eGFR < 60 by MDRD)
- Congestive heart failure (NYHA class II or greater)
- Chronic obstructive pulmonary disease (history of chronic bronchitis, chronic obstructive lung disease, or emphysema with dyspnoea on physical exertion)
- Moderate-to-severe asthma (requiring an inhaled steroid to control symptoms or prescribed a course of oral steroids in the previous 12 months)
- Age  $\geq$  55 years

Note: Risk factors are based on COMET-ICE trial inclusion criteria

**Source**

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