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Emergency department assessment and management of COVID-19 in adults

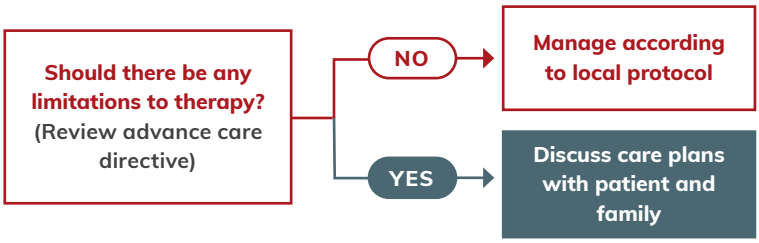
Quick reference guide

Presentation

Intended for adult patients presenting to NSW emergency departments with possible COVID-19 infection.

Initial assesssment

	Severity of illness		
Observations	**Mild**	**Moderate**	**Severe**
Saturations on room air	≥93% (or at baseline in chronic lung disease)	90–92% (or less than baseline in chronic lung disease)	≤89% (or less than baseline in chronic lung disease)
Respiratory rate	10–25	8–10 or 26–30	<8 or >30
Heart rate	50–120	40–50 or 120–140	<40 or >140
GCS	15	15	≤14



Risk stratification is based on vital signs in conjunction with high risk factors and response to treatment.

High risk factors

- Age ≥65
- Chronic respiratory disease
- Chronic kidney disease
- Chronic cardiovascular disease
- Immunosuppression
- Diabetes
- Cancer.

High probability COVID-19 factors

- Fever
- Dyspnoea
- Fatigue
- Change in smell or taste
- High epidemiological risk.

Refer to SAS consensus statement of safe airway principles and COVID-19 National Clinical Evidence Task force assessment.

Investigations

Mild	Moderate	Severe
COVID-19 nucleic acid detection swab +/- influenza PCR (use local protocol)		
Nil	FBC, EUC, INR, D-dimer, troponin VBG (including lactate and glucose) LFT, APTT, CRP (if available) Blood culture if febrile ≥38.5°C ECG, chest X-ray POCUS (if available)	

Severe disease has been correlated with:

- Lymphopenia (<1.1 × 10^9 cells/L)
- Thrombocytopenia (<50 x10^9 cells/L)
- D-dimer >1.0mg/L
- New acute kidney injury
- Raised ALT/AST
- Raised inflammatory markers (CRP, WCC)
- Raised troponin (late)
- Lactate (VBG) >3.0mmol/L.

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Management and treatment

Mild	Moderate	Severe
Nil	**Respiratory support** Aim for SpO_2 ≥93% (or at baseline for chronic lung disease 88–92%) NIV as indicated in single room with contact, droplet and airborne precautions. See NSW Health guidance. HDU/ICU referral when more than 10L O_2/min required	
Nil	**Restrictive fluid strategy** 250mL boluses up to 3 times if SBP <100mmHg If not responsive then commence vasopressors No maintenance fluids unless specific indication	

Additional therapy

- Treat suspected bacterial pneumonia or influenza.
- Use metered dose inhaler (MDI) with spacer. Do not use nebuliser therapy.
- See up-to-date NSW Health information on drug therapies.

For some patients, it may be most appropriate to offer palliative care.

Disposition

Mild	Moderate	Severe
Discharge Arrange follow-up five days post symptom onset (e.g. COVID-19 service, GP, community care)	Discharge if SpO_2 ≥93% on room air (or at baseline in chronic lung disease) Refer for daily follow-up via local COVID-19 service (e.g. Hospital in the Home (HITH), community care)	**HDU/ICU referral if:** 10L/min required to maintain SpO_2 ≥93% intubated vasopressor support meets normal referral criteria.

On discharge, provide patient or carer with information on management at home and follow up, including:

- **fact sheets**
- **signs and symptoms for seeking further medical advice.**

For more information, contact your public health unit.

This summary was written to reflect current understanding of best practice in assessment and management of COVID-19 in adults

Document information	
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Endorsed by	Nigel Lyons
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Reviewed by	ECI, EDCoP, Virtual Care COP and other COPs involved in development.
For use by	This document is a quick reference guide for ED clinicians treating adults presenting to ED with symptoms consistent with suspected or confirmed COVID-19. This advice should be considered in conjunction with local guidelines.

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