SUSPECTED / CONFIRMED ADULT COVID- 19 IN EMERGENCY DEPARTMENTS

CLINICAL GUIDELINE MATRIX

Western Health

COVID-19 **Be Safe – Be Smart – Be Kind**

CLINICAL & EPIDEMIOLOGICAL FEATURES

- **Screen for COVID-19 epidemiological risk factors - travel, close contacts, occupation, prior testing**
- **Incubation Period – up to 14 days. Median 4 days**
- **Classical Presentation – fever, fatigue, dry/moist cough, anorexia, myalgia, dyspnoea, sputum production.**
- **Less common presentations – headache, sore throat, runny nose, gastrointestinal symptoms (nausea, vomiting), alteration to smell or taste.**
- **Clinical Course – Symptoms peak in severity day 5-7**

	MILD	MODERATE	SEVERE
CRITERIA (for Respiratory Associated Presentations)	• RR<20 • Sats >94% on RA (or at baseline for Patient) • Close to normal work of breathing • Normal GCS	• RR 20-30 • Sats - requiring supplemental O2 to achieve sats > 94% (or baseline for Patients with pre-existing lung disease) • Increased WOB • Normal conscious state	• RR > 30 • Sats- requiring Fi O_2 > 40% to achieve Sats > 94% • Respiratory distress or nearing exhaustion • Impaired conscious state **CRITICAL** • Decreased GCS, shock +/- other signs of end organ failure

PRECAUTIONS

- Infectious risk alert is automatically added to EMR upon COVID-19 testing
- See Emergency Department page on WH microsite for Arrival, Triage and Patient Cohorting Plans to determine patient location
- Ensure surgical mask applied to all suspected/confirmed COVID-19 patients
- PPE as per WH microsite guidance. Stringent hand hygiene at all times in all situations. Utilise a "spotter" for donning/doffing of PPE

FURTHER RISK / PROGNOSTIC ASSESSMENT

- Onset of illness: Greatest risk of deterioration on day 5-8 post onset of fever/cough
- Age and premorbid functional status: Elderly, decreased functional status, Clinical Frailty Score (CFS) *(Appendix of Ward Clinical guide)*
- Comorbidities: Hypertension, diabetes, coronary artery disease, other (e.g. COPD)
- Lab results: Reduced platelet count <150, D-Dimer > 1.0 mcg/ml, Lymphopenia, elevated Troponin, elevated Ferritin

ADVANCE CARE PLANNING:

- All admitted patients requires completion of an Acute Resuscitation Plan on admission.
- If Severe/Critical at presentation or rapid deterioration anticipated, an Acute Resuscitation Plan should be done in ED and involve Senior doctor input.

	MILD	MODERATE / SEVERE
LABORATORY INVESTIGATIONS	• Use EMR order set labelled ''COVID-19 Novel Coronavirus Initial Testing'' • Other tests as required	• Use EMR COVID order set labelled ''Community Acquired Pneumonia (CAP) including suspected COVID Pneumonia'' • Includes COVID swabs plus-FBE, UEC, LFT, hsTnI, CRP, D-dimer, VBG/ABG, blood cultures, Multiplex Respiratory PCR swab .

RADIOLOGY INVESTIGATIONS

- See Medical Imaging QRG under M guidelines on Coronavirus microsite. All requests must have infectious risk documented on EMR request
- Patients with typical clinical features of COVID-19 infection may not need any imaging. It might be useful if sudden deterioration or to exclude differential diagnoses
- CXR (mobile in ED)
- CT-chest – not indicated for routine use. Use only if diagnosis or disposition unclear
- Lung Ultrasound. (bedside). May be useful to exclude alternative diagnosis, and in cases of acute deterioration to exclude complications.

	MILD	MODERATE / SEVERE
GENERAL MANAGEMENT	• Supportive care	• Admit. Refer to "Clinical Guidelines for Patients with Suspected or Confirmed COVID-19" for full clinical guidance • IV Antibiotics if septic, hypoxaemic, pleural effusion or purulent sputum (use CAP guideline) • See Specific Treatment (below)
OXYGEN DELIVERY	• Not required	• Aim to keep O2 sat ≥ 92% (lower targets e.g. 88-92% in pre-existing lung disease) (ACEM 2020) • Oxygen delivery guidance per "Safe use of Respiratory Therapy" section in "Clinical Guideline for Doctors" QRG on WH microsite. The higher the flow rate, the higher the risk of virus aerosolization • AVOID nebulisers (use MDI + Spacer wherever possible as alternative) • Avoid HFNP, and NIV/CPAP if possible. Evidence is controversial *(ACEM 2020)*
SPECIFIC TREATMENT	• Nil	• *See Clinical Guidelines for full usage/details.* ○ Remdesivir should be considered for confirmed COVID-19 cases or those with close contact if presenting within the first 7 days of illness. Check guideline for eligibility, dosing and process of procuring remdesivir. ○ Steroids should be considered for suspected or confirmed COVID-19 cases requiring oxygen/ventilation beyond day 7 of illness. Check guideline for dosing. ○ Other medications may be considered only within the context of a randomised clinical trial
IV FLUID Rx	• Usually nil required	• Carefully titrate fluids. Excess fluids may worsen outcome • If otherwise unexplained hypotension (falling BP or SBP < 100 mmHg) administer up to three 250ml normal saline boluses. If patient remains hypotensive, discuss with ICU • Sepsis & shock is uncommon unless cardiogenic. Consider haemodynamic assessment via bedside ultrasound to guide therapy. May need inotropic support

ESCALATION TRIGGERS

- Any transition of vital signs / clinical picture to higher category. Deteriorating trend in two subsequent assessments
- Escalate to ED consultant (in charge or on call)/ NIC / nursing coordinator
- Early planning and involvement of ICU/ Critical Care Outreach teams if appropriate for escalation.

	MILD	MODERATE	SEVERE
DISPOSITION	• Home. • ACE and/or HITH team may facilitate safe discharge • Provide handout on self-isolation, general management and review criteria. • Admission more likely if CXR infiltrates, risk factor, or unable to self-isolate/other social factors.	• Admit to IRCU/respiratory ward • Early referral and bed request • Transfer on Interim Orders whenever possible	• Admit to ICU (if appropriate) • Further details available on ○ Western Health Coronavirus microsite https://coronavirus.wh.org.au/ ○ Western Health Anaesthesia / ICU Microsite https://whcovid19.wixsite.com/covid19 • Critical Care Outreach Team may assist ○ SH – 0435 194 665 ○ FH – 0466 449 397

SEVERE / CRITICAL CASES

- Determine appropriateness of escalating care as per standard practices.
- Liaise with ICU if time allows
- If Intubation in ED considered, refer to separate Guideline – ED Airway management in COVID (on microsite)
- Contact Anaesthetist if assistance required (FH 8345 6540, SH – 9055 3021)

For guidance on palliation, see "Clinical Guidelines for Doctors" on WH microsite.

RESOURCES AND QUICKLINKS:

- **Western Health Novel Coronavirus Information site https://coronavirus.wh.org.au**
- **Western Health Anaesthesia / ICU Microsite https://whcovid19.wixsite.com/covid19**
- **Victorian Department of Health and Human Services https://www.dhhs.vic.gov.au/coronavirus**
- **National COVID-19 Clinical Evidence Taskforce https://covid19evidence.net.au/**
- **NSW Health COVID-19 Critical Intelligence Unit https://www.aci.health.nsw.gov.au/covid-19/critical-intelligence-unit**

SELECTED REFERENCES:

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- Australasian College for Emergency Medicine. COVID-19 Clinical Guidelines for Emergency Departments in Australia and New Zealand. https://acem.org.au/
- Brewster, D. et al. 2020. Consensus statement: Safe Airway Society principles of airway management and tracheal intubation specific to the COVID-19 adult patient group. *Safe Airway Society (SAS), Australia and New Zealand; Australian New Zealand Intensive Care Society (ANZICS)*
- Guan, W. et al.2020. Clinical Characteristics of Coronavirus Disease 2019 in China. *NEJM* https://doi.org 10.1056
- Peng, Q-Y et al.2020. Findings of lung ultrasonography of novel corona virus pneumonia during the 2019–2020 epidemic. *Intensive Care Med* https://doi.org/10.1007/s00134-020-05996-6
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