



Supporting Information

Supplementary results

**This appendix was part of the submitted manuscript and has been peer reviewed.
It is posted as supplied by the authors.**

Appendix to: Burrell AJC, Pellegrini B, Salimi F, et al. Outcomes for patients with COVID-19 admitted to Australian intensive care units during the first four months of the pandemic. *Med J Aust* 2021; doi: 10.5694/mja2.50883.

Figure 1. Site peak occupancy as a proportion of intensive care unit bed capacity

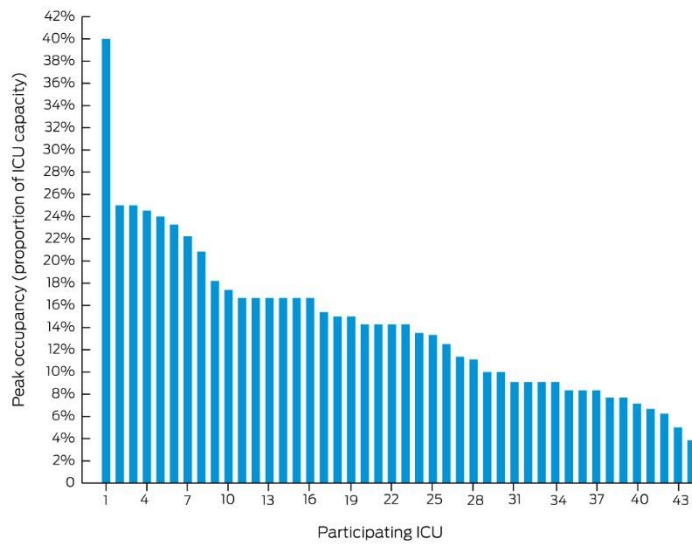
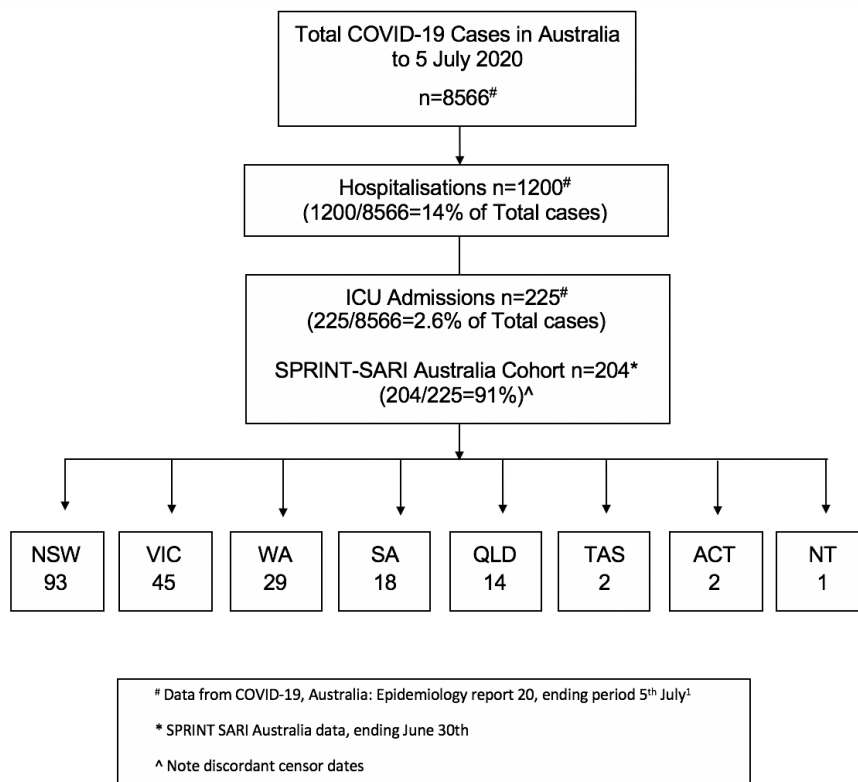


Figure 2. SPRINT-SARI Australia STROBE Consort Diagram



SPRINT-SARI = Short PeRiod IncideNce sTudy of Severe Acute Respiratory Infection.

Table 1. Intensive care unit (ICU) length of stay for 204 patients with COVID-19*: univariate survival regression analyses

Covariate	Length of stay, median (IQR)	Hazard ratio (95% CI)
Age (years)		
≤ 54	5 (2–14)	1
55–64	7 (3–20)	0.61 (0.41–0.92)
65–85	10 (4–21)	0.47 (0.33–0.67)
Sex		
Women	7.5 (3–16)	1
Men	8 (4–20)	0.77 (0.56–1.06)
Smoking status		
Never smoker	8 (3–18)	1
Smoking history	11 (5–19)	0.76 (0.48–1.2)
Not stated	4 (4–10)	1.47 (0.65–3.33)
Body mass index (kg/m ²)		
Underweight (< 18.5)	4 (4–5)	—
Normal weight (18.5–24.9)	6 (2–14)	1
Overweight (25–29.9)	9 (5–19)	0.84 (0.54–1.28)
Obese (≥ 30)	11 (3–21)	0.79 (0.53–1.17)
Not stated	4 (2–6)	1.77 (0.94–3.34)
Returned traveller	8 (3–19)	1.08 (0.80–1.47)
Cruise ship traveller	8 (3–20)	0.98 (0.70–1.37)
Health care worker	5 (3–16)	1.25 (0.74–2.12)
SOFA score on ICU day 1: respiratory, per point	—	0.88 (0.73–1.06)
SOFA score on ICU day 1: cardiovascular, per point	—	0.83 (0.74–0.94)
APACHE-II score on ICU day 1, per point	—	0.91 (0.89–0.94)
Comorbid conditions		
Diabetes	11 (5–21)	0.67 (0.48–0.95)
Hypertension [†]	9 (3–15)	1.14 (0.80–1.61)
Chronic cardiac disease	7 (3–14)	1.02 (0.68–1.55)
Asthma	11 (3–17)	0.88 (0.54–1.41)
Chronic pulmonary disease	4 (2–7)	1.47 (0.75–2.90)
Chronic immunosuppression	5 (2–15)	1.02 (0.52–1.99)
Chronic kidney disease	9 (5–12)	0.66 (0.29–1.50)
Chronic haematologic disease	5 (4–21)	0.80 (0.35–1.81)
Liver disease	8 (5–11)	1.71 (0.63–4.62)
Treatments		
Invasive ventilation	16 (9–27)	0.08 (0.06–0.12)
Inotropic/vasopressor support	15 (9–27)	0.25 (0.18–0.34)
Prone positioning	18 (10–32)	0.35 (0.25–0.51)
Renal replacement therapy	21 (9–39)	0.34 (0.20–0.58)
Neuromuscular blocking agents	17 (10–31)	0.27 (0.19–0.37)
Corticosteroids	16 (6–26)	0.51 (0.36–0.72)

APACHE-II = Acute Physiology And Chronic Health Evaluation II; CI = confidence interval; SOFA = Sequential Organ Failure Assessment.

* Censored if patients died or were still in the ICU at the end of the study. Exceptions: SOFA: respiratory system, 147 patients; SOFA: cardiovascular system, 159 patients; APACHE-II, 195 patients.

† Indicated by use of angiotensin-converting enzyme inhibitors or angiotensin receptor II blockers.

Table 2. Intensive care unit length of stay among survivors for 195 patients with COVID-19*: multivariate mixed effects survival analysis

Covariate	Adjusted hazard ratio (95% CI) [†]
Age (years)	
≤ 54	1
55–64	0.66 (0.40–1.08)
65–85	0.74 (0.47–1.17)
Sex	
Women	1
Men	0.75 (0.51–1.09)
APACHE-II score on ICU day 1, per point	0.99 (0.95–1.03)
Treatments	
Invasive ventilation	0.07 (0.04–0.11)
Renal replacement therapy	0.44 (0.24–0.80)

APACHE-II = Acute Physiology And Chronic Health Evaluation II; CI = confidence interval; SOFA = Sequential Organ Failure Assessment.

* Censored if patients died or were still in the ICU at the end of the study. Exceptions: APACHE-II data were not available for nine patients.

† Adjusted for all other variables in model.

Reference

- 1 COVID-19 National Incident Room Surveillance Team. COVID-19, Australia: epidemiology report 20 (fortnightly reporting period ending 5 July 2020). [https://www1.health.gov.au/internet/main/publishing.nsf/Content/1D03BCB527F40C8BCA258503000302EB/\\$File/covid_19_australia_epidemiology_report_20_fortnightly_reporting_period_ending_5_july_2020.pdf](https://www1.health.gov.au/internet/main/publishing.nsf/Content/1D03BCB527F40C8BCA258503000302EB/$File/covid_19_australia_epidemiology_report_20_fortnightly_reporting_period_ending_5_july_2020.pdf) (viewed Sept 2020).