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title: "Methods"

bibliography: references.bib

csl: the-new-england-journal-of-medicine.csl

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# Ethics and consent

Human Research Ethics Committee (HREC) approval for data collection, with a waiver of informed consent, was granted via the National Mutual Acceptance (NMA) scheme, through the Alfred (HREC/16/Alfred/59), or by separate applications to individual sites. Research Governance approval was granted by the Chief Health Officer (CHO) in South Australia and Victoria, and supported by the CHO in Queensland, under legislated public health powers. Individual site Research Governance approvals were granted at all sites where it was required.

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# Participating centres

Participating sites across Australia were identified following an expression of interest to ANZICS-CTG affiliated sites, or through previous affiliation with the SPRINT SARI AUS team. The ANZICS-CTG is a well-established research network with highly experienced research coordinators familiar with conducting high quality research studies. The initial case report form (CRF) had extensive development by local and international clinical experts, and includes standardized data fields that align with our international SPRINT-SARI collaborators.

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# Data collection

Data in this report was entered by the research coordinator at the participating site. To support the rapid institution of data collection and reporting, SPRINT-SARI AUS hosts a data platform that includes an electronic data capture system, a secure repository and an analytic framework. Study data were collected and managed using REDCap electronic data capture tools hosted at Monash University[@harris2009, @harris2019]. REDCap (Research Electronic Data Capture) is a secure, web-based software platform designed to support data capture for research studies, providing 1) an intuitive interface for validated data capture; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for data integration and interoperability with external sources.

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# Dataset analysed

Data in this report was extracted on 2024-05-22 at 10:18h and pertains to ICU admissions in Australia reported to the SPRINT-SARI AUS ICU COVID-19 database until 2023-12-31.

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# Statistical analysis

Descriptive statistics have been reported as mean and standard deviation (SD) or median and interquartile range (IQR) and frequencies and percentages for categorical variables. Differences between groups were assessed using the chi-square test for categorical variables and the Wilcoxon rank sum test for continuous variables. Kaplan Meier survival estimates were used to describe the 30-day in-hospital mortality according to relevant groups of interest. All analyses were performed using R version 4.4.0 (R Core Team, 2023)[@rcoreteam2023] with pakages, "dplyr", [@wickham2023], "ggplot2" [@wickham2016], "ggpubr"[@kassambara2023], "forcats", "gtsummary"[@sjoberg2021], "gt"[@iannone2024], "survival"[@therneau2024]

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# Disclaimer

This report is also descriptive and we urge caution in any inference particularly around causation.

The utmost effort has been made to ensure the highest quality data is being reported. However please note the following caveats:

- The population in this report reflect the sickest patients with SARI patients being managed in contributing ICUs, and do not reflect the overall population of SARI patients.

- Information is not complete for all patients.

- Whenever possible, transfers were aggregated into one record.

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# References