# Study Summary

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| **Scientific Title** | **Covid-19 Critical Care Consortium Incorporating the** **E**xtra**C**orporeal **M**embrane **O**xygenation for 2019 novel **C**oronavirus **A**cute **R**espiratory **D**isease (ECMOCARD) |
| **Study Design** | Prospective/Retrospective multi-centre short period incidence observational study of patients in participating hospitals and intensive care units (ICUs) with 2019 novel coronavirus (COVID-19). |
| **The Collaborative** | **In response to the COVID-19 outbreak and to assist in pandemic planning both locally and globally, a research collaborative has been assembled.** The collaborative consists of investigators from the Asia-Pacific extracorporeal life support organization (APELSO) in collaboration with centres within the SPRINT-SARI and ISARIC Network. In Australia, this study will be also complemented through collaboration with the "National registry on the treatment and outcomes of patients requiring ECMO" (EXCEL Registry). |
| **Study Aim and Objectives** | To describe clinical features; severity of pulmonary dysfunction; incidence of ICU admission and use of mechanical ventilation, coagulatory and thrombotic derangement, and ECMO technical characteristics; duration of ECMO; complications; and survival of patients with COVID-19. |
| **Inclusions/Exclusions** | All patients admitted to ICU with lab-confirmed COVID-19 infection by real-time PCR and/or next-generation sequencing will be included.<br>Patients receiving mechanical ventilation or ECMO for other concomitant causes will be excluded. |
| **Consent** | Given the negligible risk associated with this study and the timely nature in which the data needs to be collected, a waiver of consent is sought. |
| **Study Setting** | International multi-centre study, conducted in all collaborating hospitals/ICU-based research networks globally. |
| **Sample Size** | All patients with confirmed COVID-19 infection admitted to ICUs at the collaborative centres |
| **Study Start Date** | From the commencement of COVID-19 global epidemic |
| **Study Duration** | Until completion of COVID-19 global epidemic, as judged by the World Health Organization |

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| **Data collection processes** | Patients will be studied from time of ICU admission until hospital discharge or up to 28 days post ICU admission, whichever occurs later. All clinical information will only be recorded if taken as part of routine clinical practice at each site. Only re-identifiable data will be submitted centrally (REDCap hosted at Oxford University for International centres and at Monash University for Australian centres). A specific ECMOCARD Case Report Form (CRF) will be used by participating sites to collect a minimum data set of ICU, mechanical ventilation and ECMO data. Data for ECMOCARD and SPRINT SARI observational study will be concomitantly collected. Data will be recorded into REDcap through standard data collection or interactive augmented human experience via digital interaction by voice or touch monitors or digital transcription of CRF hard copies. In Australia, patients concomitantly included into the EXCEL registry, EXCEL data will be requested to complement ECMOCARD data and reduce daily workload. |
| **Basic CRF** | In collaborating sites with limited resources for data collection a modified Basic CRF will be proposed. In particular, we will use a CRF with significant reduction in data collection frequency, while ensuring collection of valuable data to achieve research targets and analysis of clinically relevant outcomes. No new data variables will be collected as part of the Basic CRF, but the frequency of daily data collection will be reduced from 14 days from hospital admission and on the day of ICU admission (ISARIC Daily form on REDCap) and every day of mechanical ventilation<br>1) Upon hospital admission<br>2) Upon ICU admission<br>3) Four days after ICU admission<br>4) Upon commencement of mechanical ventilation<br>5) Upon ECMO commencement<br>6) Upon ECMO discontinuation |