Abstract #: 1477
The landscape of COVID-19 trials in Australia

Mason Aberoumand1, Anna Lene Seidler1, Jonathan Williams1, Angela Webster1, Aidan Tan1

1NHMRC Clinical Trials Centre, University Of Sydney, Camperdown, country Australia

Background: The coronavirus disease 2019 (COVID-19) pandemic has seen a large number of clinical trials launched at unprecedented speed. We aimed to explore the landscape of COVID-19 trials in Australia, and to what extent Australian researchers have responded to global need for coordination and collaboration.

Methods: We systematically searched the Australian New Zealand Clinical Trials Registry (ANZCTR) and ClinicalTrials.gov from 1st January to 16th November 2020. We included all interventional studies addressing prevention, diagnosis or treatment of COVID-19, recruiting in Australia. We analysed the number and size of trials, additional recruitment countries, funding, trial purpose, study design, data sharing plans, and collection of COVID-19 core outcomes.

Results: We identified 56 COVID-19 trials, targeting 33,757 participants. They evaluated drugs (n = 34, 61%), vaccines (n = 10, 18%) or other interventions (n = 12, 21%), e.g. ventilators, digital health. Median target sample size was 150 (Q1-Q3 = 33-395). Only two trials utilised adaptive methods (Bayesian designs), and of the 34 COVID-19 treatment trials, only one included all core outcomes. Most (80%) indicated they were not planning to share data.

Conclusions: There has been impressive research scale-up and innovation in drug development and digital health, but fast-track procedures may have impacted scientific rigor and research prioritisation. Trials often lacked innovative study designs, were underpowered for clinical outcomes, collected limited core outcomes and did not intend to share data, precluding future evidence synthesis.

Key messages: The research response in Australia has been rapid, but better coordination is required. Infrastructure for innovation would support coordination of research efforts, and reduce research waste.