Research Project Impact Case Study

REMAP-CAP – identifying novel therapeutics for severe seasonal influenza while preparing for the next global influenza pandemic

Short Research Title

Finding the best treatments for severe influenza

Key researchers

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Research purpose

Seasonal influenza causes significant morbidity and mortality, especially for Māori and Pacific peoples. However, the optimal management of patients hospitalised with severe influenza is not known. An influenza pandemic looms large as a potential future threat and investment in understanding the optimal treatment of season influenza could deliver benefits for patients and healthcare systems when an influenza pandemic does occur.

Research approach

REMAP-CAP (Randomised, Embedded, Multi-factorial, Adaptive Platform Trial for Community-Acquired Pneumonia) REMAP-CAP is an adaptive learning healthcare platform for evaluation and implementation of therapeutics for hospitalised patients with acute respiratory tract infections. In contrast to conventional randomised clinical trials, REMAP-CAP's innovative design allows new clinical questions to be answered quickly, efficiently, and at low cost. Clinicians from Aotearoa have key leadership roles in the global study that spans multiple continents with ~300 active sites. We seek to identify the optimal combination of treatments for patients with severe seasonal influenza while simultaneously remaining prepared for the next influenza pandemic. With the support of Te Niwha, we have expanded to recruit participants on the ward during winter 2025, and this expansion has been very successful with a high number of patients recruited.

Impact

The health, well-being and social impacts and benefits of REMAP-CAP research can be seen at participant, patient, workforce, and system levels. Trial participants potentially benefit through the global application of response-adaptive randomisation. Non-trial patients with severe respiratory infections benefit as evidence efficiently accrues on the optimal management of severe respiratory infections. Local REMAP-CAP investigators benefit from the shared knowledge and relationships afforded by the large international REMAP-CAP network. Lastly, REMAP-CAP embeds research into usual care creating a learning health system that breaks down barriers between clinical practice and clinical research to improve the delivery of public healthcare. There is real potential for improved treatment of severe influenza, a costly public health problem, to deliver significant economic benefits. REMAP-CAP's focus is on widely available and typically cheap treatments. Identifying effective treatments will reduce mortality, time in intensive care and time in hospital; identifying commonly used but ineffective treatments will enable disinvestment and cost savings. Investing in seasonal influenza clinical research platforms such as REMAP-CAP avoids the needs for such platforms to be established from scratch when a pandemic occurs, which is inevitably costly, inefficient and less likely to quickly deliver the knowledge needed for such a public health emergency. With strong recruitment in New Zealand, we strive to generate results we can be confident apply to our population.