
EaRly impAct therAPy with ceftazidime-avibactam via rapid diagnostics versus standard of care antibiotics and diagnostics in patients with bloodstream infection, hospital-acquired pneumonia or ventilator-associated pneumonia due to *Pseudomonas aeruginosa* or carbapenem non-susceptible Enterobacterales (RAPID)

Faculty:

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Project Description:

The ADVANcing Clinical Evidence in Infectious Diseases (ADVANCE-ID) Network is established to conduct rapid, cost-effective randomised controlled trials (RCT) to deliver relevant and high-quality evidence to guide clinical practice. We hope to achieve this vision through shared ownership with our collaborators and building long-term research capacity. Based at the Saw Swee Hock School of Public Health, National University of Singapore, ADVANCE-ID is led by Prof David Paterson and Dr Mo Yin, who are experienced in regional and global infectious disease studies, particularly in multidrug-resistant infections. RAPID is the second multinational clinical trial that is being initiated by ADVANCE-ID, targeting to recruit 1600 patients from 20 hospitals all over the globe. The RAPID is a RCT looking to assess the effect of rapid diagnostics and early impact antibiotics on patients with hospital-acquired bloodstream infection or ventilator-associated pneumonia. In this trial we hope to integrate rapid diagnostics with early impact antibiotics to determine if this improves patient outcomes.

We would like to invite prospective PhD students with ADVANCE-ID, based in National University of Singapore. The programme can be offered full-time or part-time to train keen individuals with innovative multi-disciplinary skills with an aim to support and conduct large-scale randomised controlled trials. The candidate will enjoy opportunities in trial design, implementation and analysis. Highly transferrable skills such as computer programming, Bayesian statistics, in-silico trial simulations, implementation and behavioural science, will be taught.

Requirements for applicants include:

- Basic understanding in clinical applications of statistics

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- Experience in clinical research
 - Work as a productive member of a team
 - Minimum undergraduate or Master's degree