PhD opportunity in Medical Statistics and Clinical Trials Design

por webadmin - lunes, enero 13, 2020

http://www.biometricsociety.net/2020/01/13/phd-opportunity-in-medical-statistics-and-clinical-trials-design/

What is the project?

Randomised controlled trials (RCTs) are the gold standard for testing whether a new treatment is better than the current standard of care. However, traditional RCT designs can take a long time and are often expensive.

Our multi-arm, multi-stage (MAMS) adaptive trial design allows us to test several different treatments in parallel (multi-arm) and allows us to cease recruitment early to treatments that appear futile (multi-stage). The advantages over traditional designs are: 1) saves time compared to testing all the treatments sequentially in a series of two-arm trials; 2) increases the probability of identifying a better treatment; 3) allows testing of more treatments than would ever be performed in two-arm trials; 4) more cost-effective and more efficient than multiple two-arm trials.

The MAMS approach is one of the few adaptive designs being deployed in a number of trials and across a range of diseases, including STAMPEDE (prostate cancer), CompARE (TB), TRUNCATE-TB (TB), RAMPART (renal cancer), and ROSSINI-II (wound surgery) prompting changes to treatment guidelines in patients with prostate cancer in the case of STAMPEDE trial.

The main objective in this PhD project is to extend the design with the aim of increasing its efficiency and application, i.e. to allow for different types of outcome distributions at interim and final analyses, to explore its statistical properties, and to develop both statistical software and practical guidance for practitioners.

Who are the ICTM and the MRC Clinical Trials Unit at UCL?

The MRC CTU at UCL is at the forefront of resolving internationally important questions in infectious diseases and cancer, and delivering swifter and more effective translation of scientific research into patient benefits. It does this by carrying out challenging and innovative studies, and developing and implementing methodological advances in study design, conduct and analysis. You will be joining a team of renowned experts in the field of clinical trials.

Eligibility

Ideally, the candidate would be numerate with a strength for developing statistical methodology and an enthusiasm for applying those methods into practice, e.g. a degree in mathematics, (medical) statistics, or a related quantitative field.

Who are the supervisors? Dr Babak Choodari-Oskooei and Professor Max Parmar. You will also be

supported by a Thesis Committee (TC), which will provide degree-spanning support and advice about academic and training progress for the successful candidate over the course of the Doctoral study. This provides students with additional research input, improved institutional networking and more centralised management of their skills training.

When can I start? October 2020

How do I apply? Please send your cover letter and CV to Dr Babak Oskooei (email: b.choodari-oskooei@ucl.ac.uk).

Deadline for applications: 31 January 2020.

How can I find out more?

https://www.ucl.ac.uk/clinical-trials-and-methodology/education/phd/current-studentships

For an informal chat, you can contact Dr Babak Oskooei (b.choodari-oskooei@ucl.ac.uk).

Selected references:

1. Blenkinsop A, Parmar MKB, Choodari-Oskooei B (2019), Assessing the impact of efficacy stopping rules on the error rates under the multi-arm multi-stage framework. *Clinical Trials*. DOI: 10.1177/1740774518823551
2. Parmar MKB, et al. (2017), Testing many treatments within a single protocol over 10 years at MRC Clinical Trials Unit at UCL: Multi-arm, multi-stage platform, umbrella and basket protocols. *Clinical Trials* 14(5):451–461.
3. hoodari-Oskooei B, Parmar MKB, Royston P, Bowden J. Impact of lack-of-benefit stopping rules on treatment effect estimates of two-arm multi-stage (TAMS) trials with time to event outcome. Trials. 2013;14:23
4. Bratton DJ, Phillips PPJ, Parmar MKB. A multi-arm multi-stage clinical trial design for binary outcomes with application to tuberculosis. BMC Medical Research Methodology. 2013;13:139.
