THE CAMBRIDGE STATISTICS DISCUSSION GROUP

Monday 25th November 2013 7:15 for 7:45

Department of Applied Mathematics and Theoretical Physics, Centre for Mathematical Sciences, Wilberforce Road, Cambridge, CB3 0WB

Design of multi-arm multi-stage trials

James Wason

MRC Biostatistics Unit

Abstract: In many disease areas there are multiple experimental treatments awaiting testing in clinical trials. Multi-arm trials provide large gains in efficiency over separate randomised trials of each treatment by using a shared control group. Further increases in efficiency can be obtained by introducing interim analyses at which modifications can be made to the proportion of patients allocated to each treatment. Such a design is called a multi-arm multi-stage (MAMS) trial. In this talk I will discuss and compare three classes of MAMS designs that can be used to increase efficiency and ethical properties of a multi-arm trial: group-sequential designs, drop-the-loser designs and adaptive randomisation. I will also discuss some statistical issues that are common to all three.

Speaker: James Wason is a senior investigator statistician at the MRC Biostatistics Unit in Cambridge. As part of the nationwide MRC network of Hubs for Trials Methodology Research, he is interested in statistical methods for increasing the efficiency of clinical trials.

Directions: The main entrance is reached from Clarkson Road by going along the footpath to the right of the Newton Institute, and turning left through the gatehouse towards the main building (Pavilion A), which has a glass front and a curved grassed roof. The main entrance is in the middle of the glass front. Free Parking is available after 5pm on Clarkson and Wilberforce Roads and by entering the site off Wilberforce Road. Admittance may be difficult after 7:45.

Provisional Next Meetings (2014):

3rd February 2014 - Klaudia Walter (Sanger Institute).

20th February - Richard Samworth (Statistical Laboratory).

27th March - Peter Fretwell (British Antarctic Survey).

30th April - Nick Galwey (GlaxoSmithKline) on 'Working with Epidemiologists'.

14th October - Adrian Mander (MRC Biostatistics).

Supper: Some members eat regularly in the University Centre before each meeting at 6pm. Feel free to join them.

Subscriptions: of 1 pound are now due for attending the 2013-2014 session.

Secretary: Peter Watson, MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 7EF; telephone 01223 355294 Extension 801; E-mail peter.watson@mrc-cbu.cam.ac.uk.

Slides and .mp3 files of old talks: http://www.mrc-cbu.cam.ac.uk/people/peter.watson/csdg.html

Approved Minutes of Annual General Meeting 2011-2012

The Annual General Meeting for the year 2011-2012 was held at the Cognition and Brain Sciences Unit on 9th October 2012. Present: Ted Harding (in chair), Susana Conde, Polyxeni Dimitropoulou, Tim Drye, Julia Forman, Mary Garratt, Bob Haining, Mark Hill, Pamela Morris, Haidee Philpott, Mike Streather, Adam Wagner, Peter Watson, Yu-Tzu Wu. **Apologies:** Sheila Bird, Carol Brayne, Margaret Corbett, Martin Gibson, Ian Nimmo-Smith, Jayantha Ratnayake, Helen Tate. The **minutes** of the previous A.G.M. were circulated and approved. The secretary reported another good total attendance of 92 for the 2011-2012 session. He also invited anyone with suggestions for speakers or venues or anyone interested in joining the committee to please contact a committee member.

Treasurer's Accounts and Report 2011-2012:

The CSDG started the year in October 2011 with £36.21 cash in addition to £200 in the Cambridge building Society (plus \sim £6.00 interest). The table below shows the financial activity during the current year (Oct11 to Sept12).

Expenditure		Income	
Speakers' expenses	£37.76	Balance at Oct 2011	£36.21
		Subscriptions	£28.00

Cash balance at October 2011 £36.21, cash remaining 1st October 2012 £26.45.

There remains £200.00 (plus interest) in a Community account at the Cambridge Building Society.

The account holders are Ted Harding (current chairman), Peter Watson (current secretary) and Adam Wagner (current treasurer replacing Helen Tate as a signatory). These names can be changed on application. The principle holder is the treasurer. Any of the three account holders can deposit and withdraw money. It is suggested subscriptions stay at £1 for the 2012-2013 session although these may need to go up if we make future losses as in the 2011-2012 session.

Election of officers and committee: Committee (unchanged) for 2012-2013: *chair* Ted Harding; *secretary* Peter Watson; *treasurer* Adam Wagner; *officio* Dave Andrews; *ordinary* Margaret Corbett, Pamela Morris, Haidee Philpott. **Any Other Business:** None.

Draft Minutes of Annual General Meeting 2012-2013

The Annual General Meeting for the year 2012-2013 was held at the Cognition and Brain Sciences Unit on 15th October 2013. Present: Ted Harding (in chair), Mike Bithell, Susana Conde, Mark Hill, James Lester, Pamela Morris, Anastasia Raievska, Michael Thorne, Peter Watson. **Apologies:** Margaret Corbett, Mary Garratt, Martin Gibson, Ian Nimmo-Smith, Haidee Philpott, Helen Tate, Adam Wagner. The **minutes** of the previous A.G.M. were circulated and approved. The secretary reported a total attendance of 92 (same as 2011-2012) for the 2012-2013 session. He also invited anyone with suggestions for speakers or venues or anyone interested in joining the committee to please contact a committee member.

Treasurer's Accounts and Report 2012-2013:

The CSDG started the year in October 2012 with £26.45 cash in addition to £200 in the Cambridge building Society (plus ~£6.00 interest). The table below shows the financial activity during the current year (Oct12 to Sept13).

Expenditure		Income	
Speakers' expenses	£46.81	Balance at Oct 2012	£26.45
		Subscriptions	£41.00

Cash balance at 1st October 2012 £26.45, cash remaining 1st October 2013 £20.64.

There remains £212.22 (plus interest) in a Community account at the Cambridge Building Society.

The account holders are Ted Harding (current chairman), Peter Watson (current secretary) and Adam Wagner (current treasurer). These names can be changed on application. The principle holder is the treasurer. Any of the three account holders can deposit and withdraw money. Given we almost broke even in 2012-2013 it is suggested subscriptions stay at £1 for the 2013-2014 session.

Election of officers and committee: Committee (unchanged) for 2013-2014: *chair* Ted Harding; *secretary* Peter Watson; *treasurer* Adam Wagner; *officio* Dave Andrews; *ordinary* Margaret Corbett, Pamela Morris, Haidee Philpott.

Any Other Business: None.