

Medical Statistics Course, Liverpool:

Review

The idea of two days of intensive statistics is enough to fill anyone with dread, but due to my huge lack of understanding on the subject I decided it was time to bite the bullet and go. After reading papers which quote P and r values when displaying data I've managed to build a vague understanding of some statistical techniques and what they mean. But when I start to use them myself I'm never sure whether I'm using the correct one, for example when should I use a non-parametric test!? So when I heard about a medical statistics refresher course held by the Medical Physics and Clinical Engineering department in the Royal Liverpool University Hospital, I felt it would be a great opportunity to fill in a few blanks.

The course was specifically aimed at trainees, researchers and other people working with medical statistics, so there was a range of professions present, although there was a good turn out from trainees. The first day of the course was supposedly a refresher course (although I'd never heard of ROC analysis before!) which most usefully went over hypothesis testing, power calculations, non-parametric

tests, and correlation and regression. The second day went into a bit more detail on things like P-values, confidence intervals, and the robustness of standard deviation and linear regression. The teaching was very intensive, but examples were given on how and predominantly when to use certain tests which really helped my understanding. Also some people brought along their own examples of data they had and it was explained how to analyse it. A group exercise was undertaken after each section, which helped to summarise the topic and demonstrate the main principles. In-between the intensive maths there were regular tea breaks to refuel and a very good lunch (which made it all worthwhile!).

I certainly came away with more confidence in how to analyse data myself, how to understand figures quoted in papers and that it's best to ask a statistician if in doubt as there's a lot more to it than meets the eye! I would strongly recommend that if trainees haven't been taught much about how to apply statistical techniques they should go on this kind of basic course, as it will help not only in understanding literature, but when analysing data from your own projects.

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