
The paper reviewed on the preceding page has received much media attention, and has featured in Elisabeth Pisani’s blog, ‘Sex and Science’. I felt it could be helpful to Journal readers if I also mention some of the things I was only alluding to in this blog: that is, what an HIV vaccine paper would be that was detailed in that blog.

Dr Pisani’s blog focuses mainly on specific aspects of the HIV vaccine trial paper approaches taken to statistical analysis, observed variation in vaccine efficacy (VE) in some subgroups (such as high-risk individuals), and the public health perspective.

Three analyses undertaken in the paper are termed Real World [Intention to Treat (ITT)], Ideal World (per protocol) and Tidied-up World (modified ITT). Dr Pisani states that the Real World analysis is most useful to public health policymakers, which is usually correct. However, in this case it would mean wilful acceptance of a misleading estimate of VE, because in this analysis the two groups compared included unequal numbers of individuals who had already become infected before vaccination commenced, and for whom infection could not be prevented. That said, this was a decision made with the forecast infection rate and fill – the estimates obtained by the three analyses are strikingly similar, a VE of around 26% to 31%. Would a vaccine of such efficacy be of clinical use? It would be unwise to place wide confidence intervals (CIs) around the estimates of VE. This is an important point and, as has been commented above, would have benefited from some discussion in the paper. While, however, this is perhaps over-laboured. In all trial papers the point estimate is likely to be accompanied by an interval estimate, which argues for a more circumspect assessment of plausible possibilities for true effect, and often some of these possibilities are clinically trivial. While it is true that this trial has turned out to be underpowered, and hence provides very imprecise estimates of effect, we still need to give the point estimate due consideration. Having disparaged, on account of their wide confidence intervals, the overall estimate of VE, the trial paper reports in passing that all tests of treatment effect (across subgroups) are inevitably much lower powered than the overall test of treatment effect. In fact the paper reports in passing that all tests of subgroup factors are non-significant. This could be interpreted as no difference in VE between high-risk group and lower-risk groups, which might provide solace to Dr Pisani. However, a more circumspect view is that the study just does not have the power to test the association between risk group (or age group) and VE (as the authors in fact state).

In the light of the concerns expressed in this blog regarding the VE for the high-risk group, it seems that perhaps the authors should have provided a clear ‘public health warning’ along with the subgroup table.

Having raised concerns about various aspects of the research and its reporting – these mainly founded on the uncertainty inherent to some degree or other, in (all) research results, and on the cumbersome and counter-intuitive nature of the hypothetico-deductive reasoning required – Dr Pisani goes on to conclude that the trial is a ‘triumph for science’, if not yet for public health.

It is salutary to recognise a distinction between the ‘science’ stage, and the ‘public health’ stage of vaccine development and implementation, but such ‘science’ needs to remember that its driving force is the imperative for a future public health application. Dr Pisani was astute in highlighting in her blog that the report of the trial did not pay sufficient attention to the public health perspective of its findings.

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References

6 March 2010
Title: Northern Interbranch Spring Update. Venue: Tankersley Manor, Tankersley, Barnsley S75 3DQ, UK. Details: Topics include female genital mutilation, an update on the changes to the latest UKMEC Guidelines, a review of the evidence for the safe use of Depo-Provera in clinical practice, and a session of questions and answers. Accreditation: FSRH accredited, 13 hours CME. Information: Sarah Swallow, 01484 836475.

11–12 March 2010
Title: BMS – FSRH Menopause Special Skills Module. Venue: Holiday Inn, Birmingham City Centre, UK. Details: This course is practical and interactive in design, based on the workshop style of the FSRH Diploma course. It is aimed at doctors but would equally be suitable for specialist nurses who work regularly to provide women’s health advice and management. It intends to equip the clinician to work within a menopause clinic or primary care environment. Further training would be required to lead a specialist service. Accreditation: FSRH accredited, 13 hours CME. Information: Mike Gray, (01484) 836475.

19–20 April 2010
Title: Letter of Competence in Medical Education (LocMED). Venue: Welsh Institute for Women’s Health, Cardiff Medcentre, Heath Park, Cardiff, UK. Details: Applications are invited from doctors of the Faculty of Sexual and Reproductive Healthcare who are actively involved in contraception and reproductive healthcare, equivalent to 100 sessions in the past year. Accreditation: FSRH accredited, 13 hours CME. Information: Dr Jenny Manuel, 28 The Spinney, Moorton, Llanelli SA7 6SP, UK. E-mail: Jennifer.manuel@nhs.net.

9 July 2010
Title: Abortion Care Theory Course. Venue: Hexham General Hospital, Hexham, Northumberland, UK. Details: One-day theory course for the Certificate in Abortion Care of the Faculty of Sexual and Reproductive Healthcare. Information: Dr M Mansour, Holbarn, 6 Well Road, Newbiggin by the Sea, Northumberland NE45 4QW, UK. Tel: +44 (0) 1661 843675. E-mail: m.mansour@nhs.net.

7–8 October 2010
Title: BMS – FSRH Menopause Special Skills Module. Venue: Crown Plaza Hotel, Leeds, UK. Details: This course is practical and interactive in design, based on the workshop style of the FSRH Diploma course. It is aimed at doctors but would equally be suitable for specialist nurses who work regularly to provide women’s health advice and management. It intends to equip the clinician to work within a menopause clinic or primary care environment. Further training would be required to lead a specialist service. Accreditation: FSRH accredited, 13 hours CME. Information: Mike Gray (see 11–12 March 2010 entry).

25–26 November 2010
Title: BMS – FSRH Menopause Special Skills Module. Venue: Holiday Inn, Southampton, UK. Details: This course is practical and interactive in design, based on the workshop style of the FSRH Diploma course. It is aimed at doctors but would equally be suitable for specialist nurses who work regularly to provide women’s health advice and management. It intends to equip the clinician to work within a menopause clinic or primary care environment. Further training would be required to lead a specialist service. Accreditation: FSRH accredited, 13 hours CME. Information: Mike Gray (see 11–12 March 2010 entry).