Reviewer's report

Title: A novel electronic tool to recruit large patient samples and assess selection bias in general practice research

Version: 1 Date: 26 February 2010

Reviewer: Jonathan Graffy

Reviewer's report:

I read this article with interest. It is well written and describes the work done clearly. I have made a few suggestions which I hope are helpful.

Major Compulsory Revisions

My understanding from the paper it is that the software tool only interrogated the practice records for details of date of birth and sex, and not clinical data. If clinical data was accessed electronically (rather than when the clinician considered eligibility), this should be made clearer. There might be ethical and practical consequences of using clinical data, but doing so would make the tool more useful. It would be helpful to address this point in the discussion.

It would be helpful if they could specify whether the data management aspects were approved by the ethics committee or was this just the project as a whole? The reference to participants providing informed consent at the bottom of page 5 presumably refers to participants recruited to the osteoporosis study, rather than all those screened for recruitment using this electronic tool. (This sounds pedantic but the wording could be a little clearer.)

At the bottom of page 11, there is a misleading comparison with another study reporting differential recruitment between men and women. Part of the difference in the proportions recruited in the osteoporosis study was because the lower age range was different between men and women and thus the target sample was different. Thus the "80:20" participation ratio is largely a result of the study criteira, rather than differential recruitment. I would drop this comparison with ref 34.

I was struck that as software systems were updated, there was a need to update the recruitment software. This seemed important and I wonder if it should be added to the conclusions. - Otherwise others may think that such a system can be replicated without building in plans for maintenance.

Figure one was not readable when I downloaded this. It is good to include the screen, but it needs to be larger.

Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.
Discretionary Revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests' below