Reviewer’s report

Title: Use of exercise tests in primary care: importance for referral decisions and possible bias in the decision process; a prospective observational study

Version: 3 Date: 26 August 2014

Reviewer: Susan Smith

Reviewer’s report:

I have reviewed this paper on exercise tests in primary care that focuses on referral decisions and processes in a cohort of patients previously described in ref 5. The paper is well written and presents a comprehensive review of the topic. I have some concerns for the authors to address as follows:

1. My one comment is that the presence of a positive exercise test is the strongest predictor of referral – this is unsurprising given that the test is used clinically to determine referral. The key result is that, in the adjusted analyses, there is no statistical difference in referrals based on age or gender.

2. I found it quite difficult to follow the denominators being presented. The aims do not clearly specify that the results presented refer only to those who have been referred. The methods state ‘all patients were followed up’ and the proportions presented in the results of the abstract actually only refer to the much smaller numbers who were referred (n=99). I am not sure that an analysis restricted to those referred addresses the primary objective as I would have thought this requires analysis of the full cohort? The authors do mention lack of follow up in those with negative exercise tests as a limitation but they say in other places that they were able to examine subsequent events in those not referred? – just needs to be more clearly presented

3. Please clarify patient selection and the definitions for a positive stress exercise test. It is also important for an international readership to know what the local referral guidelines are for exercise tests. In my clinical setting, GPs don’t have direct access to stress testing and I would have presumed that all those with a positive or even equivocal exercise test would be referred as these people usually have further investigations such as angiography or isotope scanning when they have a positive stress test here.

4. The study design should be described in the abstract

5. I am concerned at the multiple testing with some very small numbers in some small sub-groups. For example, much is made of the difference between self-employed women and other groups but there are only 32 self-employed women in the cohort

6. There is a presumption in the discussion that lack of referral is problematic. It may be appropriate based on multimorbidity or patient preference as would be suggested by the age range but it does seem surprising that such a decision
would not be recorded in the records
7. Some of the Tables seem unnecessary. I don’t think presenting the unadjusted ORs is helpful (Table 3).
8. Need to be consistent in use of term sex or gender
9. I am not familiar with their term socioeconomy in English and suggest the term socioeconomic status is more usual

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

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I have no competing interests