Reviewer's report

Title: To screen or not to screen for peripheral arterial disease in the oldest old in primary health care: a cross-sectional analysis from the BELFRAIL study

Version: 1 Date: 20 March 2011

Reviewer: Bruno Rushforth

Reviewer's report:

This paper from Belgium reports a cross-sectional study embedded within the BELFRAIL study. In the ‘oldest old’ (those aged 80 years or older) the authors looked to: (i) examine the prevalence of reduced ABI (ankle-brachial index); (ii) determine the accuracy of the medical history and clinical examination for reduced ABI; (iii) investigate the difference in functioning and physical activity between patients with and without reduced ABI.

The authors can be commended for attempting to develop an evidence-base to help guide intervention decisions within this under-researched group (the oldest old) and from keeping the exclusion criteria limited to try and make the study results meaningful for everyday primary care practice (although see comment below regarding consent issues). The paper is well written and well presented.

However, there appear to be a number of issues that need further clarification and / or discussion, which as currently stand detract from the impact of the paper.

Major Compulsory Revisions / Clarifications

1. The title of the paper is ‘to screen or not to screen for PAD…’ but the study appears to describe using medical history and clinical examination as a screening test for reduced ABI, the implication being that reduced ABI can be seen ‘as an indicator of PAD’. However, it’s unclear to the reader if an asymptomatic ABI of, for example, 0.89 meets the diagnostic criteria of PAD. If it does, then the question arises about the benefit from identifying those aged 80 or over with asymptomatic PAD given that very few will progress to limb ischaemia. If it does not, then it’s unclear whether the medical history and clinical examination can be seen as a screening test for PAD, or whether it is more accurately being used as a screening test for reduced ABI (which may be asymptomatic). It is noted that in the conclusion the authors state that ABI ‘correlates well with arteriography findings’. Perhaps these issues would be clarified by making the diagnostic criteria of PAD explicit in the paper.

2. The key issue around the (accepted – e.g. last sentence of abstract) lack of known effective interventions for those patients aged 80 or over identified from the screening test requires further discussion, in that the usual purpose for having a screening test is to enable patients found as ‘positive’ to the screening...
test to have further investigation and / or treatment which improves outcomes.

3. It is unclear how the third aim of the study, investigating the difference in functioning and physical activity between patients with and without reduced ABI, sits with the paper title question around screening. Further clarification would be welcomed. Particularly, the finding that the LAPAQ score was significantly lower in the group with reduced ABI may simply be due to factors such as cardiac morbidity which was significantly greater in those with reduced ABI, as in Table 2.

4. The authors report participating patients were examined ‘after informed consent’, yet they also note that those with an MMSE of 15 or more could be eligible for inclusion. In Figure 1 the refusal number for the main study is given as 19/591 (=3%), although Figure 1 also shows that the number of participants drops from 246 to 239 in the penultimate stage of the flow chart. It would be important for the authors to discuss the issue of the low refusal rate and the fact that participants with significantly reduced MMSE scores were potentially eligible for the study.

5. The first sentence of the discussion states that, ‘This study was carried out on a representative sample of people aged 80 or over in a large group practice in Belgium.’ However, the selection criteria for participants involved attempting to recruit those aged 80 or over who consulted a doctor (either home visit or who attended for a consultation) between March and July 2009. Discussion would be welcomed on how representative this group is (doctor-consulters).

Minor Essential Revisions

1. It would be helpful to know if the clinical research assistant was a medical practitioner or a nurse or some other health professional.

2. Please clarify how many of the non-measurements were due to ‘failed oscillometric BP reading’

Discretionary Revisions

1. First sentence of Background section: is PAD appropriately described as an ‘illness’ given that ‘PAD is often a subclinical disease in which the patient […] experiences no symptoms.’

Many thanks for the opportunity to review this paper and I hope that the above comments are helpful.

Bruno Rushforth
Leeds, UK

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable
**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.