Reviewer’s report

Title: Pilot Case-Control Investigation of Risk Factors for Hip Fractures in the Urban Indian Population

Version: 2 Date: 22 June 2009

Reviewer: Karen Walker-Bone

Reviewer’s report:

The authors present a case-control study of risk factors for hip fracture among Indian men and women.

Undoubtedly, this is an important piece of work in a vital area: osteoporosis and particularly hip fracture are set to cause a major burden to healthcare services and individuals in India and studies that uncover preventive strategies could have far-reaching implications.

Minor Comments:

- I feel that the discussion MUST include some consideration about the choice of control subjects (hospital staff and visitors). Although practically attractive, I do wonder if these controls could lead to a potential source of bias. For example, if a control subject is working, they may well be fitter than an equivalent-aged case who is chronically sick? Equally, workers in hospitals may have better wages with opportunity to improve their diets compared with others? Finally, healthcare workers may be better educated about diet/exercise?

- Cigarette smoking is frequently associated with hip fracture in other epidemiological studies but does not appear to have been considered here?

- Agility was measured by movement out of a chair. Although not absolutely clear, by nature of the study design, I think that this was done AFTER the hip fracture among the cases. I do not think that this can be the best way to assess such a factor as one would clearly expect mobility to be reduced by the fracture itself? Similarly, but of less importance, is the assessment of weight loss in the preceding year: it is more likely that a patient will lose weight when they fracture a hip and are admitted to hospital..

- The issues about tea/caffeine drinks is potentially important. Certainly, future studies must incorporate the milk content of the tea. Are there any ‘surrogate’ data about what proportion of Indian population generally take milk in their tea? these could help to inform the study reader..?

Level of interest: An article of importance in its field

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 declare that I have no competing interests’