



# Osteoporosis detection in the community

*Are patients adequately managed?*

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The commonest manifestation of osteoporosis is a minimal trauma fracture. One in two women and one in three men over 60 years of age living in Australia will sustain an osteoporotic fracture at some stage in their lives.<sup>1</sup> Moreover, every 8.1 minutes in Australia, someone is admitted to hospital with a fracture.<sup>2</sup> Many of these fractures are often treated without the patient being investigated for osteoporosis. Recent data has demonstrated that the risk of sustaining a second fracture increases by some 5-12-fold if osteoporosis is evident.<sup>3</sup> For this reason, agents such as alendronate, raloxifene and risedronate (all of which have been proven to significantly reduce fracture risk) have been made available in Australia on the Pharmaceutical Benefits Scheme for the treatment of patients with osteoporotic fractures.

## Method

We performed a retrospective analysis to determine the detection of osteoporosis in the South Eastern Sydney area. The aim of the study was to determine the number of patients undergoing bone densitometry and those diagnosed with osteoporosis who were receiving therapy. Patients 45 years and older referred to

private radiology practices in the region and diagnosed with minimal trauma fractures between November 2000 and October 2001 were evaluated. Patients presenting with fractures thought to be due to high impact trauma or malignancy were not included in the study. Patients diagnosed with radiological evidence of a minimal trauma fracture were provided with a survey to be completed and an osteoporosis information card.

The latter encouraged patients to discuss with their local practitioner the results of the X-ray and the need for bone densitometry and anti-osteoporotic therapies if appropriate. At the end of the 12 months we evaluated the questionnaires and contacted the patients. Information on patients not responding to the survey was obtained from the radiology practices after patient de-identification. The study was performed according to the guidelines of the National Health and Medical Research Council and the South Eastern Area Health Service Ethics Committee.

## Results

There were 250 patients, aged 45-86 years (mean age 76), who sustained minimal trauma fractures during the study period, 175 (70%) women and 75 (30%) men. These data being similar to that reported in the Dubbo Osteoporosis Epidemiology

Study.<sup>1</sup> Data regarding bone densitometry and osteoporotic therapies was possible in 161 (64%) subjects (131 women and 30 men) who were contactable. In this group, there were 32 spinal, 116 upper limb, 55 lower limb and 24 rib fractures. These data did not differ significantly from the group who failed to respond to the survey. Bone densitometry was requested in 73 (56%) women and nine (30%) men. Osteoporosis defined by a lumbar spine and/or a femoral neck bone mineral density t-score value less than -2.5, was noted in 46 (63%) of the women and five (56%) of the men evaluated. All 46 (100%) women, but none of the five men with osteoporosis were receiving anti-osteoporotic treatments.

## Discussion

Our data suggests that osteoporosis detection and fracture risk assessment remains a problem in the South Eastern Sydney area. Nearly half of the patients (79) who suffered fractures did not have bone densitometry, despite being informed of their possible osteoporosis risk (via an information card). While women diagnosed with osteoporosis were noted to be receiving anti-osteoporotic therapies, this was not evident in men. These figures are considerably better than the hospital cohort of fractured patients previously

presented.<sup>4</sup> Those patients were considerably older, some coming from nursing homes, with only 25% being investigated 6-9 months post fracture.

## **Summary**

In conclusion, osteoporosis remains underdiagnosed in the South Eastern Sydney area. A public awareness campaign, highlighting the need for bone densitometry in men and women 45 years and older who sustain minimal trauma fractures in order to diagnose osteoporosis, is required. Proven therapies for patients presenting with osteoporotic fractures, including men,<sup>5</sup> are now available and should be considered.

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## **References**

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