

Osteoporosis

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In recent years several guidelines on the prevention and treatment of osteoporosis have been published. In the Netherlands two professional organisations have updated their earlier documents. The Dutch Institute for Healthcare Improvement, CBO, published its Second Revised Guideline on Osteoporosis in 2002.¹ The Dutch College of General Practitioners (NHG) followed in 2005 with a revised osteoporosis guideline.² Both documents reflect the vast increase in knowledge on the diagnosis, epidemiology, prevention and treatment of osteoporosis in the past decades.

Bone densitometry, mostly by dual energy X-ray absorptiometry (DEXA), remains a cornerstone in the assessment of fracture risk and in the selection of patients for treatment with bone-active protective agents such as bisphosphonates. The two Dutch guidelines mentioned above are in accordance on the indication for bone densitometry. They recommend a DEXA is performed in selected individuals with increased fracture risk based on other risk factors. The risk score included in the NHG guideline is summarised in *table 1*. Bone densitometry is recommended for patients with a risk score ≥ 4 .

Table 1. Indications for bone densitometry (DEXA is recommended for patients with total score ≥ 4)²

Risk factor	Score	Sex
Existing vertebral fracture ^a	4	Male and female
Use of oral glucocorticoids ^b (for ≥ 3 months at a dose (prednisolone) ≥ 7.5 mg/day)	4	Male and female
Fracture after age 50	4	Female
Age >70 years	2	Female
Age >60 years	1	Female
Hip fracture in first-degree relative	1	Female
Body weight <60 kg	1	Female
Serious immobility	1	Female

^a Preventive treatment indicated for patients with more than one vertebral fracture without bone densitometry; ^b preventive treatment indicated for patients with a dose (prednisolone) ≤ 15 mg/day.

In this issue of the Journal, Schurink *et al.* report on a study of osteoporosis case-finding that was performed between October 2003 and June 2004.³ They studied patients aged ≥ 50 years, who had sustained a non-vertebral fracture in 2001, three years before the study.³ Eventually 88 out of 273 patients were included in the study. About half of these patients also had at least one other risk factor. Bone densitometry had already been performed prior to the study in only 12 patients. DEXA scans were carried out as part of the study in all 88 patients. Low T-scores below -2.5 were found in 45 patients. These results confirm the high prevalence of osteoporosis in patients above the age of 50 with a fracture.

The results also suggest that the doctors caring for these patients did not employ an active strategy to detect patients at risk for osteoporosis, as recommended by the 2002 revised CBO guideline. This is in accordance with the low frequency of osteoporosis treatment after fractures reported in the literature.⁴⁻⁸

The revised NHG guidelines were published after the present study was carried out. *Table 1* shows that bone densitometry should have been considered for the female patients (69 out of 88) in the study by Schurink *et al.*³ according to the NHG guideline. The present study does not allow any conclusions on adherence to the NHG guideline. The reported low adherence to other osteoporosis guidelines does not allow for optimism.⁴⁻⁸

The authors compare their results with their experience in a Fracture and Osteoporosis outpatient clinic. They have previously reported a much higher guideline adherence in this setting, 75% of the patients at risk being examined for osteoporosis.⁹ They strongly advocate the idea that the physician who treats the fracture should be responsible for initiating osteoporosis screening and subsequent treatment if necessary. The NHG guideline (note 1) also states that the physician who detects and treats the fracture should ideally also be responsible for osteoporosis screening and initiating treatment.² However, other roles with a more active part to be played by the general practitioner (GP) can be agreed upon depending on

regional preferences.² One of the reasons to consider such a role for the GP would be that the GP remains responsible for the continuation of preventive treatment and that compliance to osteoporosis treatment regimens started outside family practice can be quite low.¹⁰ An active part in initiating treatment could perhaps contribute to achieving higher levels of compliance of preventive treatment. The reasons for low osteoporosis guideline adherence have not been studied extensively. Solomon *et al.* found that patient age ≥ 75 or < 55 years, male sex and the presence of more than one comorbid condition adversely affected guideline adherence. Female doctors followed osteoporosis guidelines more often than male doctors.¹¹ More studies are needed to more fully comprehend the factors that influence guideline adherence in order to design appropriate implementation strategies. In the meantime, regional agreements should be reached between GPs, surgeons and other involved medical specialists on how to diagnose and treat osteoporosis in patients with a low-energy fracture after the age of 50. These agreements should be based on the current guidelines and include statements on the specific roles of all parties in the evaluation of patients, the initiation and continuation of therapy and on the communication between GPs and medical specialists. The agreements should also provide a means of evaluating practice and quality of care.

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