BONE

Osteoporosis screening intervals

BMD levels measured during a first osteoporosis screening test can help clinicians decide the appropriate time point for the next test in elderly women, reports the Study of Osteoporotic Fractures Research Group. Their findings also indicate that women with favorable bone density levels at baseline can be retested at greater intervals than previously thought.

Longitudinal analyses have suggested that frequent BMD testing is unlikely to improve fracture prediction and that age and baseline BMD are key factors in determining a reasonable interval for bone density testing.

To determine the rates of progression to osteoporosis before a hip or vertebral fracture occurs and before osteoporosis treatment is initiated, Gourlay *et al.* performed a competing risk analysis, adjusting for estrogen use and clinical risk factors, in women aged ≥ 67 years with normal BMD or osteopenia at baseline.

Over a follow-up period of 15 years, 0.8% of women with normal BMD, 4.6% with mild osteopenia, 20.9% with moderate osteopenia, and 62.3% with advanced osteopenia developed osteoporosis.

“We found that in a cohort of almost 5,000 women aged ≥ 67 years osteoporosis developed in $<10\%$ of study participants during rescreening intervals of approximately 15 years for women with normal or mildly low bone density, 5 years for women with moderately low bone density, and 1 year for women with advanced low bone density at baseline,” says lead investigator Margaret L. Gourlay (University of North Carolina). The researchers found that the baseline T score was the most important determinant of the BMD testing interval.

The investigators now plan to study other unanswered questions about the osteoporosis screening protocol, such as the timeline for development of osteoporosis and fracture in younger postmenopausal women (aged <65 years).

“Our findings are a reminder for clinicians that a baseline bone density test in women aged ≥ 65 years is critical to assess the risk of osteoporosis and fracture,” explains Gourlay. “We hope to see a substantial increase in the rate of first bone density tests in women in this age group, as current rates are very low.”

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Original article Gourlay, M. L. *et al.* Bone-density testing interval and transition to osteoporosis in older women. *N. Engl. J. Med.* 366, 225–233 (2012)