The New WHO for Osteoporosis: Absolute Fracture Risk Assessment

This department covers selected points from the 2007 Endocrine Update: A CME Day from the Division of Endocrinology and Metabolism at McMaster University and the University of Western Ontario.
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Osteoporosis is a skeletal disorder characterized by compromised bone strength, predisposing a person to an increased risk of fracture. The World Health Organization (WHO) defines osteoporosis as a BMD T-score ≤ -2.5 in a post-menopausal Caucasian woman, which identifies approximately 30% of post-menopausal women as having osteoporosis. This definition is a good predictor of fracture risk, but does not consider age and other clinical risk factors and does not identify treatment thresholds in and of itself.

BMD is not the only predictor for osteoporosis. The new WHO guidelines for osteoporosis recommend the integration of BMD and clinical risk factors correlated with fracture in the diagnosis of osteoporosis. These risk factors include:

- age,
- previous low trauma fracture,
- current cigarette smoking,
- rheumatoid arthritis,
- prior or current glucocorticoid use,
- more than two alcoholic drinks/day, or
- parental history of hip fracture.

Health professionals are recommended to use these risk factors in a weighted fashion when assessing the treatment threshold for osteoporosis. This will be facilitated when the risk factors and their weighting have been established by the WHO.

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A number of studies have found that a significant proportion of fractures occur in patients with T-scores > -2.5 who would not be categorized as osteoporosis. Using 10-year fracture risk to determine treatment thresholds may allow these patients access to treatment as well. This strategy would identify some patients with other risk factors but with lesser degrees of bone loss as candidates for intervention. This would in turn result in greater cost-efficacy of treatment. Dx

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