

OSTEOSCOOP

News on current events in osteoporosis and rheumatology

A simple risk score for the assessment of absolute fracture risk in general practice

N°117 – February 2010

The aim of this prospective study [1] was to develop a risk score, based on putative risk factors in current guidelines, which can be used to identify women at high risk of fractures in general practice. The study sample included 4157 women >60 y of age (mean \pm SD: 74.1 \pm 9.1 yr), with a median follow-up of 8.9 y of the Rotterdam Study (ERGO), and 762 women >65 y of age (mean \pm SD: 76.0 \pm 6.7.y), with a median follow-up of 6.0 y of the Longitudinal Aging Study Amsterdam (LASA). Potential risk factors were those proposed in risk scores of three recent guidelines on osteoporosis: age, family history of fractures, prior fracture, low body weight/body mass index (BMI), serious immobility, rheumatoid arthritis, current smoking, alcohol consumption >2 units daily, prevalent vertebral fracture, and systemic corticosteroid use.

Five-year absolute risk of hip fracture was 3.9% in the Rotterdam Study and 3.1% in LASA, and 10-y absolute risk of hip fracture was 8.4% in the Rotterdam Study. Using Cox regression analysis, age (70–79 and 80+ versus <60–69) and four other risk factors were included in the risk profiles of hip fractures and fragility fractures: any prior fracture after age 50, body weight <64 kg, use of a walking aid as a proxy measure of serious immobility, and current smoking. Estimated 10-y absolute risk of hip fracture ranged from 1.4% in women, age 60–69 years, without any of these predictors to 29% in women, >80 y of age, having two or more positive risk factors.

A simple risk score can satisfactorily identify older women at high risk of osteoporotic fractures in general practice. Future studies are needed to validate this score.

1. Pluijm SMF et al. *J Bone Miner Res.* 2009;24:768–774.

A simple risk score for the assessment of absolute fracture risk in general practice

Potential risk factors of fracture have been proposed in risk scores of three recent guidelines on osteoporosis. From these guidelines, a simple risk score was elaborated which can be used to identify women at high risk of fractures in general practice. Estimated 10-y absolute risk of hip fracture ranged from 1.4% in women, age 60–69 years, without any of these predictors to 29% in women, >80 y of age, having two or more positive risk factors. Estimated 10-y absolute risk of fragility fracture ranged from 5% in women, age 60–69 years, without any of these predictors to more than 30% in women, >80 y of age, having two or more positive risk factors.

Ten-year absolute risk of hip fracture in women, > 60 yr of age among different levels of the risk score

	60-69 yr	70-79 yr	80+ yr	Corticosteroid use
Number of risk factors*	0	1	2	3 of 4
1	1.4%	2%	6%	15%
2	6%	15%	29%	29%
3 of 4	NA	NA	22%	29%

Gray area means at high risk.
*Number of the following four risk factors: any prior fracture since age 50, body weight <64 kg, use of a walking aid, and smoking. NA, not applicable because of too low power.

Ten-year absolute risk of fragility fracture in women, > 60 yr of age among different levels of the risk score

	60-69 yr	70-79 yr	80+ yr	Corticosteroid use
Number of risk factors*	0	1	2	3 of 4
1	5%	11%	12%	12%
2	6%	12%	24%	24%
3 of 4	NA	NA	20%	31%

Gray area means at high risk.
*Number of the following four risk factors: any prior fracture since age 50, body weight <64 kg, use of a walking aid, and smoking. NA, not applicable because of too low power.

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