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A simplified and reliable system for absolute fracture risk assessment

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Absolute 10-y fracture risk based on multiple factors is the preferred method for risk assessment. A simplified risk assessment system from sex, age, DXA, and two clinical risk factors (CRFs) prior fracture and systemic corticosteroid (CS) use has been used in Canada since 2005. This study [1] was undertaken to evaluate this system in the Canadian female population. A total of 16205 women >50 y of age at the time of baseline BMD (1998–2002) were identified in a database containing all clinical DXA test results for the Province of Manitoba, Canada. Basal 10-yr fracture risk from age and minimum T-score (lumbar spine, femur neck, trochanter, total hip) was categorized as low (<10%), moderate (10–20%), or high (>20%). Health service records since 1987 were assessed for prior fracture codes (N = 5224), recent major CS use (N = 616), and fracture codes after BMD testing (mean, 3.1 yr of follow-up) for the hip, vertebrae, forearm, or humerus (designated osteoporotic, N = 757). Fracture risk predicted from age and minimum T-score alone showed a significant gradient in observed fracture rates (low 5.1 [95% CI, 4.1–6.4], moderate 11.5 [95% CI, 10.1–13.0], high 25.4 [95% CI, 23.2–27.9] per 1000 person-years; P-for-trend <0.0001). There was an incremental increase in incident fracture rates from a prior fracture (13.9 [95% CI, 11.3–16.4] per 1000 person-years) or major CS use (11.2 [95% CI, 4.1–18.2] per 1000 person-years). This simplified fracture risk assessment system provides an assessment of fracture risk that is consistent with observed fracture rates.

1. Leslie WD et al. *J Bone Miner Res*. 2009;24:353–360.

A simplified and reliable system for absolute fracture risk assessment

A simplified risk assessment system from sex, age, DXA, and two clinical risk factors (CRFs) - prior fracture and systemic corticosteroid (CS) use - was evaluated in the Canadian female population. A total of 16205 women > 50 yr of age at the time of baseline BMD (1998–2002) were identified in a database containing all clinical DXA test results for the Province of Manitoba, Canada. Basal 10-y fracture risk from age and minimum T-score was scored. Fracture risk predicted from age and minimum T-score alone showed a significant gradient in observed fracture rates. There was an incremental increase in incident fracture rates from a prior fracture or major CS use. This simplified fracture risk assessment system provides an assessment of fracture risk that is consistent with observed fracture rates [1].