Inclusion of falls history shown to enhance accuracy of fracture risk assessment models

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Researchers from the MRC Lifecourse Epidemiology Unit in Southampton, UK, have presented a new study that shows how the inclusion of falls history, in addition to clinical risk factors (CRFs) and bone mineral density (BMD) values, would greatly improve the accuracy of fracture prediction models. The research findings were presented today at the European Congress on Osteoporosis & Osteoarthritis in Valencia, Spain.

Using results from the Hertfordshire Cohort Study, the investigators examined the relative contributions of CRFs, BMD and falls history to fracture prediction. They concluded that fall history is an independent risk factor for fracture. Its inclusion in a fracture prediction model in men (in addition to CRFs and BMD) improved accuracy by 6%. The authors show that such models would have positive predictive values of 21.5% and 29.8% in men and women, respectively.

"These findings are also directly applicable to clinical practice," commented Prof Cyrus Cooper, Professor of Rheumatology and Director of the MRC Lifecourse Epidemiology Unit at the Universities of Southampton and Oxford. "Physicians should ask their patients, and particularly male patients, about their history of falls after the age of 45. This will not only be valuable information in making an assessment of whether to treat an individual for osteoporosis, but would also give the physician the opportunity to discuss falls prevention strategies."

"Osteoporotic fractures can have debilitating effects on individuals and

targeting preventative treatments to those at the highest risk is of great importance." Said Dr Mark Edwards, Academic Clinical Fellow at the MRC Lifecourse Epidemiology Unit, University of Southampton.

More information: Clinical risk factors, bone mineral density and falls history in the prediction of incident fracture among men and women. M. Edwards et al. Osteoporosis International DOI 10.1007/s00198-011-1554-9

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