

Oral Abstract

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Substantial adverse outcomes follow non-hip non-vertebral fragility fractures

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Non-hip non-vertebral fractures are often ignored when considering the impact of osteoporotic fractures. The aim of this study was to examine adverse outcomes following non-hip, non-vertebral fractures.

All low trauma fractures (April 1989-May 2007) from 2245 women and 1760 men aged 60+ in Dubbo were followed up for subsequent fracture and mortality.

There were 952 fractures in women and 343 in men followed by 290 (women) and 74 (men) subsequent fractures and 461 (women) and 197 (men) deaths. Non-hip non-vertebral fractures accounted for almost 50% (n=659) of initial fractures, 54% (n=196) of subsequent fractures and 43% (n=200) of all deaths. Re-fracture rate following a non-hip non-vertebral fracture was increased 1.7-fold in women (95% CI 1.5-2.0) and 2.3-fold in men (95% CI 1.6- 3.2). Notably, risk of a subsequent hip or vertebral fracture was increased almost 2-fold in women and over 2.5-fold in men. Standardised mortality ratios (SMR) were also higher following non-hip non-vertebral fractures; SMR 1.50 (1.30-1.73) in women and 1.48 (1.18-1.85) in men with most of this associated premature mortality occurring in those >70years. Importantly, premature mortality following the non-hip non-vertebral fractures contributed to 28% (women) and 31% (men) of excess deaths.

Thus, this group of fractures not only constitutes half of all low trauma fractures but contributes significantly to the associated poor outcomes of re-fracture and premature mortality. Efforts to prevent non-hip non-vertebral fractures should be a priority and studies should include these fractures, as well as hip and vertebral fractures, as primary outcomes.