



Oral Abstract

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Increased mortality following major and minor osteoporotic fractures: a 15 year follow-up study

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Although, immediate post-fracture mortality risk has been documented, long-term mortality is unclear. This study examined mortality following all clinical osteoporotic fractures over 15 years.

Fracture and mortality from all subjects (60+) in Dubbo were collected from 1989-2005. Fractures were classified into hip, vertebral, major (proximal humerus, distal femur, proximal tibia, pelvis, multiple rib) and minor (all others excluding finger and toe). Age and sex-specific standardised mortality ratios (SMR) were calculated using population mortality rates from Australian Bureau of Statistics. Mortality over time was analysed according to fracture type and age.

There were 880 fractures in women and 329 in men, over 27,687 and 20,054 person-years, respectively, followed by 399 deaths in women, and 181 in men. SMRs were increased following hip [women: 2.5 (1.7- 3.6) and men: 3.6 (1.9- 6.8)], vertebral [women: 1.9 (1.4- 2.7) and men: 2.3 (1.5- 3.7)], major fractures [women: 1.8 (1.2- 2.7) and men: 1.7 (1.0- 3.2)], and minor fractures in the older age-groups [women 1.5 (1.1- 2.1) and men 2.1 (1.2- 3.6)]. Mortality was relatively higher for hip and vertebral fractures in younger age-group with 5-12 life years lost. Mortality risk was highest in the first 5 years, but hip and vertebral fractures were associated with increased risk up to 10 years. A subsequent fracture was associated with a further 1.5- 2.3-fold increased mortality risk.

This study demonstrates increased mortality following all major fractures, and minor fractures in older people. The high mortality risk post-fracture decreased over time but re-fracture increased it again.