

Invited Speaker Abstract

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Determination of absolute risk and treatment recommendations for osteoporosis

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The clinical importance of osteoporosis is the increased risk of a fragility fracture, i.e. one preceded by minor trauma; or more simply any fracture that, in the same circumstances, would be unexpected in a young healthy man or woman. Each fragility fracture signals significant morbidity, premature mortality, high health care costs and increased risk for all other fragility fractures. The remaining lifetime risk of a fragility fracture for a post-menopausal Australian woman is ~50% and 25-30% in a man of similar age. Yet in Australia, as in virtually all countries, few women (<25%) and fewer men (<10%) get any specific treatment even after a fracture to reduce future fracture risk, e.g. post-hip fracture where anti-osteoporosis therapy is associated with reduced mortality.

Thus, despite clear benefits, there are major barriers to treating those at increased risk of a fragility fracture, prior to a fracture event, and to targeting those already having had one fracture to reduce their risk of having more. The major issues guiding treatment recommendations should be identifying those at increased absolute risk of a fragility fracture before or after a fracture event balanced against estimates of potential for benefit and for side effects from therapy.

The WHO FRAX and Dubbo nomograms <fractureriskcalculator.com> have been developed from long-term prospective data. They can now be used to identify absolute risk for an individual; both women and men. Although yet to be fully validated in the field, their more precise estimates can and should underpin rational treatment recommendations and individual decisions.