Osteoporosis-related fractures in China expected to double by 2035

8 April 2015

The results of the first study using a health economics model to project osteoporosis-related fractures and costs for the Chinese population, shows that the country's healthcare system will face a dramatic rise in costs over the next few decades.

The study forecasts that the incidence and costs of osteoporotic fractures in China will double by 2035, with costs rising to approximately USD 25.58 billion by 2050.

In the study, published in the journal *Osteoporosis International*, investigators from the University of Tasmania, Anhui Medical University and Nanjing Medical University estimated that in 2010 more than 2.3 million osteoporosis-related hip, clinical vertebral and wrist fractures occurred in the population aged 50 years and over. The cost to the Chinese healthcare system was estimated to be approximately USD 10 billion. Women accounted for 73 % of the total costs, sustaining approximately three times more fractures than men.

The International Osteoporosis Foundation (IOF) estimates that by 2050 more than 50 % of all osteoporotic fractures will occur in Asia - and China will be the country which is most affected due to its large population of seniors. By 2050, the Chinese population is projected to decrease slightly to 1.3 billion, but those aged over 50 years will reach almost half (49%) of the total population. In addition, those aged 70 years or above are projected to rise from 81 million in 2013 to 132 million in 2025, reaching 263 million by 2050. This is the population group at highest risk of costly and debilitating hip fractures.

Reflecting this expected increase in the ageing population, the researchers projected that the annual incidence and costs of osteoporotic fractures will double by 2035. By 2050 the number of fractures is expected to increase to 5.93 million resulting in costs of approximately USD 25.58 billion.

Lei Si, lead investigator of the study, said, "With increasing life expectancy and a growing population of seniors aged over 70 years, there is no doubt that the burden of osteoporosis and related fractures will grow dramatically in China. Our study underlines the need for an urgent focus on fracture preventive strategies and resources to treat and care for elderly fracture patients in the future."

Andrew Palmer, Professor of Health Economics, Menzies Institute for Medical Research, University of Tasmania added, "We have identified that osteoporosis fractures represent a huge and increasing cost to Chinese society. We now need to identify effective screening, prevention and treatment strategies that are good value for money in order to reduce the size of this problem. Our team has just finished developing a cutting edge tool to do this, and we will be working intensively to find the optimal screening and treatment strategies for China."

More information: Projection of osteoporosis-related fractures and costs in China: 2010-2050, L.Si, T.M Winzenberg, Q Jiang, M. Chen, A.J. Palmer, *Osteoporos Int* (March 2015) DOI: 10.1007/s00198-015-3093-2

Provided by International Osteoporosis Foundation