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The silent pandemic

Mathias Toth

Osteoporosis is known as the silent killer as sadly most cases go unnoticed until some such time that an incident fracture occurs. In 2004, the US Surgeon General's report recognised that fractures should be considered sentinel events, requiring clinical intervention [1]. Evidence-based guidelines recommend bone mineral density testing and anti-osteoporotic medications for all patients who sustained a fragility fracture [2]. By 2009, only 7.7% of women and 4.5% of men had both a bone scan and initiated pharmacotherapy within the 12 months following the fracture [1].

The world population is aging and with increasing longevity we see a growing number of patients presenting with degenerative conditions, such as osteoporosis. Fracture risk increases exponentially with age, and over 70% of all fractures affect women over 65 years old. After the age of 50, almost one in two women and one in five men will sustain a fragility fracture during their remaining lifetime [3]. For the individual, these fractures translate into pain and suffering with increasing disability, and for our society, healthcare costs are spiralling out of control.

Our ability to predict the risk of future fractures started evolving when Cameron and Sorensen introduced a new method to assess the mineral content of our bones in 1963 [4]. In 1976, Madsen et al. developed dual-photon absorptiometry (DPA) [5]. With the introduction of dual-energy X-ray absorptiometry (DXA) in the late 1980s, BMD measurements became clinically useful thanks to the significantly reduced acquisition time [6].

Having come this far, we believed for a long time that BMD measurements were the be-all and end-all in terms of fracture prediction, but epidemiology has taught as an important lesson. As so elegantly explained in Professor El-Miedany's article 'Recent developments towards closing the gap in osteoporosis management', published in this issue of the journal, the National Osteoporosis Risk Assessment (NORA) study revealed that more than half of the women who experienced an incident osteoporotic fracture had a BMD T-score of − 1.0 to − 2.5 [7]. This leads Professor El-Miedany to explore the value of FRAX and additional risk factors in the development of fracture risk prediction models.

The new developments in fracture risk intervention thresholds and the identification of the new cohort of patients identified at 'very high fracture risk', combined with ever advancing treatment options in the management of fracture risk, lead Professor El-Miedany to explain the importance of updating current osteoporosis management guidelines and he convincingly persuades us to adopt new methods in fracture risk assessment, aiming to optimise the use of newer bone anabolic agents for those at the highest risk, ultimately benefitting patients as much as society in reducing individual suffering and the burden of spiralling health expenditure for our society.

The Egyptian Guidelines for the Management of Osteoporosis also published in this issue of the journal provide an excellent example of how setting up a comprehensive process to achieve consensus amongst experts in osteoporosis allows the introduction of a 'Treat to Target strategy' as the most appropriate approach to manage osteoporosis patients and facilitate the implementation of management guidelines in clinical practice.

The guidelines define the therapeutic objectives, patient follow-up scheme, treatment failure criteria, and appropriate treatment choices for use in the Treat to Target paradigm. The conclusions and recommendations in the study are graded systematically, based on the quality of available information, indicating the level of evidence forming the basis for each recommendation.

The guideline should be used to aid management decisions but do not replace the need for clinical judgement in the care of individual patients in clinical practice. Adoption of such strategy would lessen the burden of osteoporosis, not only in Egypt but also in the whole world.

Correspondence: mathias.toth@nhs.net
Darent Valley Hospital, Kent, UK

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