

SIGN 142

Management of osteoporosis and the prevention of fragility fractures

A national clinical guideline



Background

The SIGN guideline on the management of osteoporosis and prevention of fragility fractures will be published on 13 March 2015. In 2003 SIGN published a guideline on the management of osteoporosis (SIGN 71) and since then new evidence has been published in many areas covered by the recommendations in that guideline resulting in the need for this full review.

Why we need the guideline

Osteoporosis is a common bone disease characterised by reduced bone mass which is associated with an increased risk of low-trauma fractures. In 2013, fractures occurred in 13.2/1,000 women and 6.4/1,000 men over the age of 50 in Scotland. The majority of fractures occur in people above the age of 65 years and a large proportion of these patients have osteoporosis.

Fractures are an important cause of morbidity, and patients who suffer hip fractures and vertebral fractures have a decreased life expectancy compared with population-based controls. A wide range of treatments that can reduce the risk of fractures in patients with osteoporosis is now available. These have the potential to improve clinical outcomes for patients with osteoporosis and to reduce societal costs of medical care associated with fractures.

The challenge for healthcare professionals

Worldwide, it is estimated that an osteoporotic fracture occurs every three seconds. At 50 years of age, one in three women and one in five men will suffer a fracture in their remaining lifetime. For women, the risk of hip fracture is higher than the risk of breast, ovarian and uterine cancer combined. For men, the risk is higher than the risk for prostate cancer.

Approximately 50% of people with one osteoporotic fracture will have another, with the risk of new fractures rising exponentially with each fracture.

The risk of sustaining a fracture increases with age due not only to the decrease in bone mineral density, but also to the increased rate of falls among the elderly.

The elderly represent the fastest growing segment of the population. Thus, as life expectancy increases for the majority of the world's population, the financial and human costs associated with osteoporotic fractures will increase dramatically unless preventive action is taken.

Remit

This guideline provides recommendations based on current evidence for best practice in the management of osteoporosis and prevention of fractures. It addresses risk factors for fracture, commonly-used tools for fracture risk assessment, approaches to targeting therapy, pharmacological, and non-pharmacological treatments to reduce fracture risk in different patient groups, treatment of painful vertebral fractures and systems of care.

The assessment and prevention of falls is excluded as it was covered by a national resource published by NHS Quality Improvement Scotland in 2010 which aimed to prevent fractures in older people by raising the profile of falls, and also a clinical guideline published by the National Institute for Health and Care Excellence (NICE) in 2013.

The guideline also excludes issues surrounding the surgical management of fractures and postoperative care of patients with fractures.

Target users of the guideline

This guideline will be of interest to rheumatologists, endocrinologists, general practitioners, physicians involved in care of the elderly, orthopaedic surgeons, gynaecologists, specialist nurses involved in the care of patients with osteoporosis and pharmacists. It will also be of interest to physiotherapists, occupational therapists and those involved in exercise sciences and nutritional management of people with osteoporosis. Patients affected by fractures and osteoporosis and their carers may also find the guideline to be of interest.

Implementing the guideline

The implementation strategy for this guideline encompasses:

- the National Osteoporosis Society in Scotland working with osteoporosis and falls teams in all Health boards to provide education sessions for all relevant health and social care professionals
- guideline, quick reference guide and supporting materials available for download from the SIGN website
- identification of the key recommendations that should be prioritised for implementation
- description of recommendations likely to have significant resource implications
- key points for audit
- dissemination of a quick reference guide to all appropriate healthcare professionals
- electronic dissemination of the full guideline to all NHS Boards
- iPhone, iPad and Android apps.