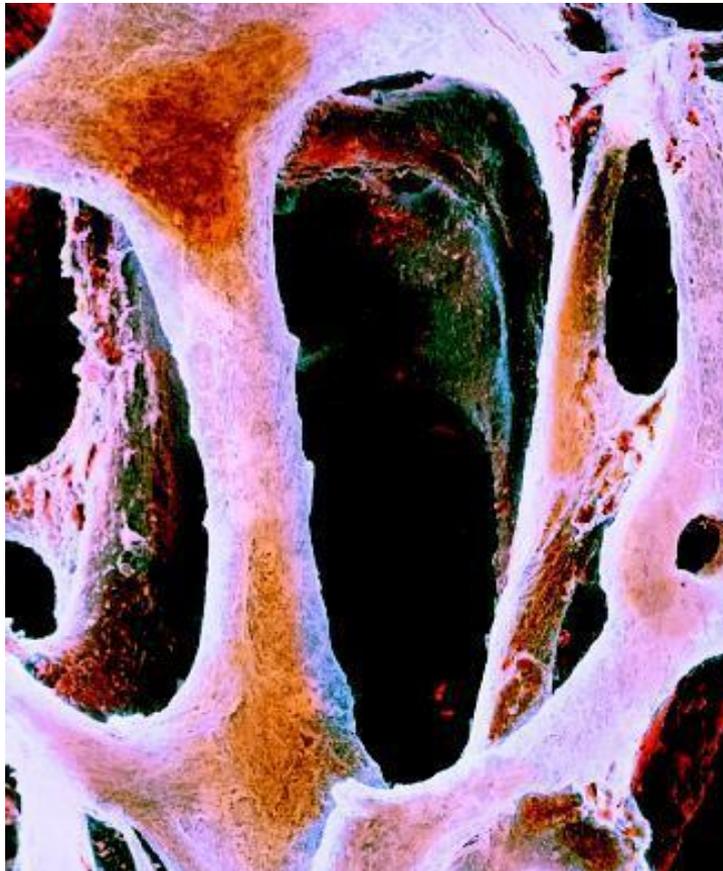


**Russells Hall Hospital
Emergency Department**

Emergency Department Management of Fragility Fractures



Osteoporosis is a progressive systemic skeletal disease characterised by low bone density and micro-architectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture.

This guideline details how patient morbidity and mortality due to osteoporotic fractures may be reduced by effective multidisciplinary working between the Emergency Department (ED), GPs and specialist clinical services.

Key Recommendations

All Emergency Department (ED) healthcare professionals should develop and maintain basic professional competences in fracture management and bone health.

ED healthcare staff should be aware of the possibility of osteoporosis in those patients who have suffered a fragility fracture.

Any patient suffering a fragility fracture should be given suitable written and oral advice if they are discharged home from the ED.

GPs should be sent a written summary regarding the management of all patients who attend the ED Clinic for review of a fracture. Information regarding further assessment of bone health should accompany the clinic letter.

Monitoring and audit of osteoporosis management in the ED are the responsibility of named leads of the senior medical and nursing teams.

Background

Fragility fractures may be defined as fractures that occur following a fall from standing height or less, and they occur as a consequence of bone weakness and an increased tendency to fall. In the UK, more than 200,000 osteoporotic fractures are sustained each year, however osteoporosis is known as a 'silent' disease as it is not usually evident until these fractures occur. The whole skeleton is affected but the sites most prone to fracture are the wrist, spine, hip and proximal humerus.

Such fractures can cause pain, disability or death in a high proportion of sufferers. For example, following an osteoporotic hip fracture around 50% of patients lose the ability to live independently and 20% die within a year. Estimated annual costs to the NHS are in excess of £1.73 billion.

Risk Factors

Age is a major risk factor for primary osteoporosis as there is a gradual loss in bone mass after the age of thirty. The condition can affect both men and women. Risk increases in post-menopausal women due to a lack of oestrogen production. Other risk factors include:

Low body weight

Lack of physical activity and/or poor mobility

Corticosteroid use (for > 3 months)

Family history of maternal hip fracture below 75 years of age

Untreated early menopause

Smoking and excessive alcohol use

Conditions affecting bone metabolism, e.g. inflammatory diseases such as rheumatoid arthritis, hyperthyroidism, CRF and coeliac disease

Prevention

It is essential that any acute fracture is managed appropriately but secondary prevention of bone fragility and any tendency to fall must also be addressed. Preventative therapy can reduce the risk of further fractures and the subsequent costs of care.

Referral to local falls services can reduce the risk of subsequent episodes. This should be done prior to discharge of a patient from the ED (see separate Falls Guideline on Hub).

Interventions such as weight-bearing exercises, smoking cessation and reduction in alcohol intake can aid in the preservation of bone mass and reduce the risk of further fractures. It may not be possible to address all these issues in detail in the ED but it should be borne in mind that an opportunity exists to highlight the risks of an unhealthy lifestyle to patients. Further management of such concerns should be continued by individual patients' GPs and other specialist teams (e.g. Falls Team, DALT).

ED Management of Patients with Fragility Fractures

The Emergency Department nurse or doctor is usually the first healthcare professional to see a patient who has sustained a fracture. However, the focus in such a busy environment is usually on symptom management and treatment of the injury itself. Several factors (e.g. staff turnover and training, distraction and time available) militate against the identification and further management of risk factors for both osteoporosis and further falls (see separate Falls Guideline). However there are some simple interventions that can enable both the patient and GP to be made aware of the risks of osteoporosis for patients who have suffered a fragility fracture.

Firstly, any person who has sustained a fracture of any sort should be given appropriate written and oral information prior to discharge. This should include the leaflet '**Broken Bones, Falls and Bone Health**' which is available in the ED.

Patients who are admitted under the care of an inpatient team should undergo assessment and further management of osteoporosis risk by that team and there will be no further ED involvement. Patients who are discharged to Fracture Clinic will be managed by the Orthopaedic team. If a patient is reviewed in the ED Clinic, a written summary of the consultation will be sent after each visit. All adult patients who have sustained an injury resulting in a fracture will have a copy of the letter in Appendix 1 added to their clinic letter.

Further Information and Useful Links

National Osteoporosis Guideline Group

<http://www.shef.ac.uk/NOGG/index.html>

NICE Clinical Guideline 146: Osteoporosis Fragility Fracture

<http://guidance.nice.org.uk/CG146>

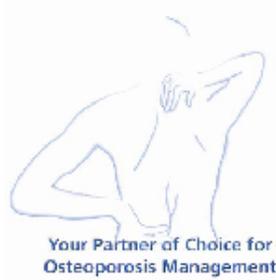
National Osteoporosis Society

www.nos.org.uk

Dudley Osteoporosis and Falls Guidelines 2007

<http://www.dudley.nhs.uk/sections/publications/documents%5CFOI28324538581.pdf>

Appendix 1 – GP letter added to ED Clinic notes



The Dudley Group **NHS**
NHS Foundation Trust

Russells Hall Hospital
Pensnett Road
Dudley
DY1 2HQ

Telephone 01384 456111
ED Secretaries ext. 2003/2210/2211

Dudley Osteoporosis Service

With reference to the accompanying Emergency Department clinic notes:

Dear Doctor

This patient may have sustained a fragility fracture. Please could you refer to the osteoporosis secondary prevention pathway and evaluate the patient for future fracture risk according to NICE clinical guideline 146.

If you have any queries specifically regarding the secondary prevention pathway please contact Dr Whallett (ext. 5816) or Dr Michael (ext. 2242).

Kind regards

ED Consultants

NICE CG146:

<http://guidance.nice.org.uk/CG146>

National Osteoporosis Guideline Group (includes link to FRAX tool):

<http://www.shef.ac.uk/NOGG/index.html>

Link to Dudley Osteoporosis and Falls Guidelines:

<http://www.dudley.nhs.uk/sections/publications/documents%5CFOI28324538581.pdf>

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