GUIDELINES FOR ADDRESSING POSSIBLE OSTEOPOROSIS IN PRIMARY AND SECONDARY CARE

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INTRODUCTION:

All patients with one or more of the risk factors below should be considered at risk of osteoporosis and axial densitometry (femoral neck and lumbar spine DXA) requested to measure BMD with the following exceptions.

- Patients >/= 80 years
- Patients >/+65 years on corticosteroids **can** be treated empirically[1]

1. Risk Factors

Major risk factors:

1. History of fragility fracture
2. Untreated hypogonadism [premature menopause, 2° amenorrhoea, 1° hypogonadism in women; 1° or 2° ¡ hypogonadism in men]
3. Glucocorticoids planned >/= 3 months
4. Disease associated with increased prevalence of osteoporosis [eg RA, ankylosing spondylitis, gastrointestinal disease, chronic liver disease, hyperparathyroidism, hyperthyroidism]
5. Radiological osteopenia
6. Low bone mass as assessed by other techniques (eg heel DXA T score <-0.6).

Minor risk factors :

1. Family history of osteoporosis (especially maternal hip fracture)
2. Low body mass index
3. Cigarette smoking
4. Excess alcohol
5. Height loss

In patients >65 years (community **and** nursing home dwelling), 1g Calcium and 800iu daily supplementation has anti-fracture efficacy [2,3] but additional therapy is indicated for **osteoporosis** identified either by fragility fracture or axial T score <-2.5)

2. Management according to DXA results

2.1 T score at spine or hip > -1.0**:**

Re-assure

2.2 T score at spine or hip -1.0 to -2.5

Lifestyle advice

a) Adequate nutrition especially with calcium (at least 1 gram elementary calcium by diet/supplement daily) and vitamin D3 (800iu daily)
b) Regular weight bearing exercise
c) Avoidance of tobacco use and alcohol abuse

(Remember treat as for osteoporosis if T score <-1.5 if on steroids because of greater bone fragility at this BMD)

2.3 T score <-2.5 (or patient has history of fragility fracture, or T score <-1.5 plus on regular corticosteroids)

Investigate, then treatment options[4]**:**
Adequate calcium and vitamin D (as for lifestyle) plus:

a) HRT: for post menopausal women < 60 years requiring estrogen for relief of menopausal symptoms
b) SERM: suitable for post menopausal women if preferred (evidence for prevention of non-vertebral/hip fractures not demonstrated)
c) Bisphosphonate: any post-menopausal women, men or corticosteroid- induced osteoporosis

Further treatment options (pulsed PTH, calcitonin, calcitriol etc) for specialist use. Note: if male <70 with fragility fracture or axial T score <-2.5 suggest refer to secondary care.

References:

1. Gluco-corticoid Osteoporosis. Royal College of Physicians, London. April 2003
2. Vitamin D_3 and calcium supplementation to prevent hip fractures in elderly women. Chapuy MC, Arlot ME *et al*. NEJM; 327: 1637-1642. 1992.
3. Effect of calcium and vitamin D supplementation on bone density in men and women 65 years of age or older. Dawson-Hughes B, Harris SS *et al*. NEJM; 337: 670-676. 1997.
4. Osteoporosis-clinical guidelines: summary and recommendations. Royal College of Physicians, London March 1999 (Update online www.rcplondon.ac.uk).