OVERVIEW

The prevalence of osteoporosis in the United Arab Emirates (UAE) is affected by the rather unique population structure. The total population is around 4.9 million. Of this, 20% are Emirati nationals with a female/male ratio of 1/1.1. The rest are expatriates with a female/male ratio of 1 to 4.

Moreover, the total population above 50 years of age is only around 7%. Thus the expected population with osteoporosis will be relatively small in number, however proper epidemiological prevalence figures for osteopenia and osteoporosis in UAE are not available. One screening study on 1825 healthy individuals, average age 42 years, using quantitative ultrasound, revealed that 24% had osteopenia and 2.5% had osteoporosis.

Although no national registry of hip fractures has been initiated in UAE, we estimated that there are 2.25 osteoporotic hip fractures per 1000 population. This data is from the records of one major hospital in Abu Dhabi.

With a DXA scanner distribution of 0.1 per 10 000 population in UAE there is an obvious need for increased resources. The issue of hypovitaminosis D also carries great relevance as a previous study here on the local population revealed that 78% had deficient levels.

So far osteoporosis is not regarded as a major health problem at governmental level and there are no national guidelines available in this context. The Emirates Osteoporosis Society (EOS) and a division of the Emirati Medical association (EMA) have recently been in contact with the governmental health bodies to raise awareness of current and future activities.

EOS successfully organized the 4th Pan Arab Osteoporosis Meeting in Dubai in March 2008 and a World Osteoporosis Day event in 2007. Now it is looking forward to the IOF Regionals – 1st Middle East and Africa Meeting in Dubai in October 2011. This event will serve to greatly increase awareness in regard to osteoporosis at the governmental level and among health professionals in UAE and throughout the entire region.

KEY FINDINGS

The present population in UAE is estimated to be 4.9 million, of this 7% (300 000) is 50 years of age or over and less than 25000 is 70 or over. By 2050, it is estimated that 12% (550 000) of the population will be 50 or over and 2% will be 70 or over while the total population will increase to 8 million (fig 1).

FIGURE 1 Population projection for UAE until 2050

REF US Census Bureau

EPIDEMIOLOGY

It is estimated that 24% of people have osteopenia (estimation based on a screening of 1825 healthy individuals) and 2.5% people have osteoporosis (average age 42, with QUS).

Hip fracture

Currently, there is no national hip fracture registry available but it is estimated that there are 2.25 osteoporotic hip fractures per 1000 population per year (data collected from a major hospital in Abu Dhabi).

In United Arab Emirates, 90% of the hip fractures are surgically treated. The average number of bed days is 14 days per fracture.
Direct hospital costs are estimated to be USD 12,000 per patient and loss of productivity to the workplace is estimated to be 90 days.

**Vertebral fracture, other fragility fractures**

No information available.

**DIAGNOSIS**

There are around 50-55 DXA machines all over UAE, mostly located in the main cities. The length of waiting time to access a DXA exam is 7-10 days in government hospitals and 1 day in private hospitals. The DXA exam costs USD 100-200 and an ultrasound USD 50-70.

**REIMBURSEMENT POLICY**

DXA exams and osteoporosis treatments are reimbursed for UAE nationals and private health insurance usually reimburses drugs and the exams for expatriates.

**CALCIUM AND VITAMIN D**

Calcium and vitamin D supplements are available.

**PREVENTION, EDUCATION, LEVEL OF AWARENESS**

Today, osteoporosis is not yet recognized as a major health problem in UAE and there are no government-approved guidelines.

Programmes on lifestyle prevention are limited to EOS awareness programmes.

The level of awareness among health care professionals and allied health professionals is estimated as medium to poor except in some specialties like rheumatology or endocrinology.

**RECOMMENDATIONS**

Osteoporosis should be recognized as a major health problem by the government – there is a need for government-approved guidelines and prevention programmes. Individuals should have greater access to DXA scans. The level of awareness among health care professionals must be increased to ensure improved diagnosis, prevention and treatment.