Bulgaria

Overview

Four IOF national society members are operating currently in Bulgaria: the Bulgarian League for the Prevention of Osteoporosis (since 1998), Women without osteoporosis (since 2000), the Bulgarian Society for Clinical Densitometry (since 2004), and the Bulgarian Medical Society of Osteoporosis and Osteoarthrosis (since 2007).

The main tasks of the Societies include: training of health professionals; participation in scientific surveys and guideline elaboration; scientific and methodological aid on the problems faced by the country’s healthcare system; interaction with other scientific medical associations and/or independently organized scientific events; support of the higher medical institutes and medical centres; as well as the publication of specialised medical literature and information materials for physicians and patients.

A 5-year National Program against Osteoporosis supported by the Bulgarian Government and Ministry of Health was implemented from 2006 through 2010. It incorporated the following activities:

- A Pharmacoeconomic Analysis of Osteoporosis in Bulgaria was issued in 2007 and specific reimbursement rates to the National Health Insurance Fund were proposed. Educational and certification courses for densitometry staff in 15 DXA centers in Bulgaria in 2007-8 along with the completion of a random community DXA screening of 2500 Bulgarian women. A national epidemiological survey (2000 women) was conducted in 2009 to investigate the prevalence of densitometric osteoporosis and reported fractures, the risk factors and fracture risk in the general female population aged 50 and over, with the results presented at the ECCEO’10 Florence and ECCEO’11 Valencia meetings.

- The FRAX® calculation tool was introduced in everyday clinical practice by organizing special teaching sessions throughout the country and educational courses during two National Congresses in 2008 and 2010. National Conferences of Osteoporosis and Osteoarthrosis in Bulgaria were also organized during this period.

- In 2010, the Bulgarian Bone Club for experts was founded, supported by three Bulgarian IOF-CNS member societies (the Bulgarian League for the Prevention of Osteoporosis, the Bulgarian Society for Clinical Densitometry and the Bulgarian Society of Osteoporosis and Osteoarthrosis) as well as by the Bulgarian Society of Endocrinology and the Bulgarian Society of Rheumatology. The Second National Program against Osteoporosis is in preparation for 2011-2015. It pursues three strategic goals:
  - To establish the epidemiology of vitamin D deficiency in Bulgaria.
  - To implement a Government program for vitamin D food fortification.
  - To build a national registry of hip and vertebral fractures.

Key findings

The present population in Bulgaria is estimated to be 7.5 million (3.6 million men and 3.9 million women).
Of this 38% (2.8 million) are aged 50 and over and 12% (900,000) - 70 and over. By 2050, it is estimated that 53% (2.5 million) of the population will be 50 and over and 26% (1.2 million) will be 70 and over while the total population will decrease to 4.6 million1 (fig.1).

The reported retrospective study, designed to determine the prevalence of osteopenia and osteoporosis in a female referral population, included 8,869 Bulgarian women (age 20–87 years). The prevalence of normal forearm bone mineral density in women aged over 50 years was 47.1%, the prevalence of osteopenia was 32.5%, and the prevalence of osteoporosis was 20.5%2. Preliminary data from one DXA center indicated a prevalence of total hip osteoporosis around 14%3.

In the National Osteoporosis Epidemiological Survey (including 1334 Bulgarian women 50-89-year old) the prevalence of femoral neck osteoporosis was 16.8%4. Thirty eight percent of the women had normal BMD and 46.5% had low BMD. The age-adjusted prevalence is shown in Fig. 2.

In the 50-59 age group 20.6% of all women had osteoporosis at the lumbar spine, 42.2% had low BMD and 37.2% had normal BMD4.

**Hip fractures**

In 2009, it was estimated that 8,800 hip fractures (9% of all fractures) occurred4,5. This is a 15% increase compared to 2007 (7,500 hip fractures reported). About 90% of all hip fractures occurred in the population over 50 years old and affect 3 times more women than men.

One point nine percent of the women participating in the National Epidemiological Survey reported previous hip fractures (1.7% - one fractured hip and 0.2% - two fractured hips). Four percent reported maternal history of hip fractures8.

The estimated direct cost of treating hip fracture is around €1,500 in 2010, with an average number of 6 hospital days in acute care and 14 hospital days in rehabilitation. Total direct hospital costs for hip fractures are around €15 million3,6,7.

**Vertebral fractures**

Two point three percent of the women participating in the National Epidemiological Survey reported previous vertebral fractures (1.7% - one fractured vertebra, 0.4% - two fractured vertebrae and 0.2% - three or more). Thirty three percent reported height loss above 3 cm versus young age8.

**Diagnosis**

In Bulgaria, there are 34 DXA scanners, that is 4.0 DXA per million population. Most DXA scanners are located in Sofia (10) and in large cities (17). There is no waiting time for a DXA exam in the public health system and the cost for a DXA scan of hip or spine varies from €30 to 50. DXA reimbursement is €10 per scan for patients with primary hyperparathyroidism, hypogonadism or after organ transplantation.

**Reimbursement**

Most effective drug treatments are reimbursed up to 25%. Female patients with postmenopausal osteoporosis and central DXA T-score ≤-2.5 are eligible for treatment reimbursement with or without fractures. Since August 2010 two bisphosphonates, Zoledronate and Risedronate, have been approved for the treatment of osteoporosis in men. The reimbursement rate is the same (25%).

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*Figure 2* The age-adjusted prevalence of osteoporosis and low bone mass at the femoral neck is shown.

*Figure 3* Number of hip fractures in Bulgaria in 2007 and 2009.
Calcium and vitamin D

The National Program against Osteoporosis in Bulgaria 2006-2010 and the National Guidelines for Osteoporosis Management (second revision, 2008) provide guidelines for optimum daily intake: at least 1200 mg/day of calcium and at least 800-1200 IU of vitamin D.

Prevention, education, government policy

Osteoporosis is considered a national health priority in Bulgaria and most national and regional osteoporosis campaigns are supported by the Bulgarian government. The Ministry of Health, the scientific societies of endocrinology, rheumatology, orthopaedic surgery and gynaecology are supportive partners. In 2004 Medical Standards in Endocrinology and the first Bulgarian Guideline for the Diagnosis and Treatment of Osteoporosis were issued (second revision 2008); in 2010, the Medical Standard in Rheumatology was issued. However, currently no national fragility fracture registry has been established for data collection and monitoring. Most data are collected from the Regional Healthcare Centres.

References

9. www.endo-bg.com
10. www.mh.government.bg