Osteoporosis: The Orthopaedic Health Policy Perspective

As the United States attempts to address its immense debt, healthcare savings are a focal point in the national dialogue. One clear and easy cost-savings mechanism is the management and prevention of osteoporosis. The disease is an important medical issue, and a major policy front for orthopaedics.

The finances
More than 2 million fragility fractures occur in the United States each year, costing an estimated $19 billion in health care. According to the National Osteoporosis Foundation (NOF), the annual incidence of fragility fractures is more than the combined total incidence of heart attacks, strokes, and newly diagnosed breast cancer cases each year. Each year between $3.1 billion and $4.3 billion is spent for the care of elderly osteoporotic patients who sustain a hip fracture. Yet this still only accounts for 24 percent of the annual spending on the care of osteoporotic fractures. Furthermore, the problem of osteoporosis will only increase (Fig. 1).

By 2030, the United States will have an estimated population of 72 million people age 65 and older; by 2025, approximately $25.3 billion of health costs will be spent on osteoporosis-related fractures.

Population diversity also has an impact on the growth of osteoporosis. The NOF estimates that 20 percent of non-Hispanic Caucasian and Asian women aged 50 and older have osteoporosis, and 52 percent have low bone density. Although the risk of developing osteoporosis or having low bone density is increasing in people of all ethnic backgrounds, it is increasing most rapidly among Hispanic women, according to the NOF. Experts predict that costs related to osteoporotic fractures among Hispanics will increase from an estimated $754 million in 2005 to $2 billion per year in 2025.

The data
A 2004 National Committee for Quality Assurance (NCQA) report documented the poor management of patients with osteoporosis. According to the Healthcare Effectiveness Data and Information Set (HEDIS) used by NCQA, only 18 percent of osteoporotic patients received osteoporosis management after a fracture. This is an alarming number when compared to standards of care provided to patients with other conditions, such as beta blocker treatment after a heart attack (93 percent of patients), breast cancer screening (74 percent of patients), and colorectal cancer screening (49.5 percent of patients).

According to a study published in The New England Journal of Medicine, Americans only have a 50-50 chance of getting appropriate osteoporosis care. Similarly, a 2005 article published in BMJ found that only 23 percent of patients with hip fractures are treated appropriately for osteoporosis.

The evolution of osteoporosis policy
A 2004 report by the U.S. Surgeon General on national bone health concluded that osteoporosis was poorly managed across the United States. In the following years, both the Centers for Medicare & Medicaid Services (CMS) and the Joint Commission have shifted policy to address this issue.

Increasingly, management of osteoporosis has become a measure of “quality” for orthopaedic surgeons. In 2009, CMS, under the auspices of the Physician Quality Reporting Initiative, a pay-for-performance program, implemented five osteoporosis metrics as “voluntary measures” for hospitals across the country. This may be the first step in linking orthopaedic management of osteoporosis to reimbursement.

That same year, the Joint Commission asked hospitals to volunteer to “alpha test” six osteoporosis measures, including appropriate labs, DEXA scanning, and appropriate medications. Ninety-seven hospitals across the United States volunteered to adopt the measures, which can be expected to become standards of accreditation in the future.

The need to “Own the Bone”
As the orthopaedic community becomes increasingly aware of the under-treatment of osteoporosis, it has responded with programs like “Own the Bone,” a web-based quality improvement program developed by the American Orthopaedic Association for preventing secondary fractures. This program enables a patient to track and measure success in implementing evidence-based care with respect to osteoporosis.

Initially, 14 hospitals/medical centers adopted the program, and more than 600 patients (median age: 77 years) were enrolled within the first 10 months. The project aimed to increase the percentage of patients who received counseling on the following measures:

• calcium and vitamin-D supplementation
• weight-bearing exercise
• smoking cessation
• fall prevention

The results showed a two- to four-fold improvement in six of the eight core measures of osteoporosis management. Programs like “Own the Bone” demonstrate that aggressive collaborative treatment of osteoporosis patients by both orthopaedists and primary care physicians have far-reaching benefits such as a reduction in fragility fractures and cost to the overall healthcare system.

Recognizing the shift
The recent attention and policy shifts on the federal level as well as from regulatory agencies and orthopaedic associations demonstrate the concern over the orthopaedic management of osteoporosis. It is critical that orthopaedic surgeons understand that, given its tremendous cost to the American healthcare system, the care and management of osteoporosis will increasingly become a quality metric and mode of evaluation.

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Fig. 1 Eighteen states are expected to have an increase of 50 percent or more in the prevalence of osteoporosis and low bone density by 2020.