Osteoporosis: Talk Isn't Cheap, It's Essential

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Osteoporosis appears to be a popular topic of discussion everywhere except in the physician's office. Recent international consensus conferences, FDA approval of bisphosphonate and calcitonin, and widespread availability of bone densitometers have made osteoporosis a frequent feature of the lay and medical press[1]; but according to focus groups of women from all across the country, the wave of interest has not reached the physician's office.

During the development of a questionnaire to assess the community burden of osteoporosis, we held a series of focus groups with 300 women from all over the country.[2] The nearly universal complaint of the women, regardless of age or disease status, was frustration with the health care system. Each group of 8 to 10 women had the same message: our physicians do not tell us enough about osteoporosis. Women said they were seldom questioned about risk factors for osteoporosis. When they questioned their physicians, the women were more likely to hear theories than specific advice. The advice they did hear was contradictory, varying with the source. When osteoporosis was mentioned, it was often following a fracture, and even then the advice was vague and seldom tailored to the woman's needs or lifestyle. Women expressed anger at not being told about a condition that will affect 75% of them by age 70 and 95% of them by age 90. Several asked why *Good Housekeeping* was more concerned about osteoporosis than their physicians were.

Osteoporosis is common, reported to affect over 25 million American women and men.[3,4] After age 65, osteoporosis contributes to 1.3 million fractures in the United States each year.[5] The first-year mortality rate for hip fractures ranges from 14% to 31%, and 25% of the survivors move to long-term care facilities.[3-6]

The lifetime risk for a woman to suffer an osteoporotic hip fracture is greater than her combined lifetime risk of breast, ovarian, and endometrial cancer, although the total number of life-years lost is higher for the malignancies.[7] For a man, the risk of a hip fracture is similar to his risk of developing prostate cancer.[7] The cost of hip fractures exceeds $10 billion and accounts for 3% to 5% of all Medicare expenditures.[5,6]

The burden of osteoporosis goes beyond fractures. In our focus groups the women identified many areas in which osteoporosis affected their lives. Women who had been given the diagnosis of osteoporosis (usually only following a fracture) noted the problems most people associate with osteoporosis: pain and loss of mobility secondary to fractures. But osteoporosis affected almost every aspect of their lives. Difficulty playing with grandchildren, traveling, personal hygiene and grooming, finding clothes that fit, poor self-image, and chronic fatigue were among the most frequent complaints of women who had experienced a fracture. Women with osteoporosis who had not experienced a fracture also had concerns. The concerns were usually about the future: future fractures, future loss of independence, and fear that each new ache or pain was a sign of worsening of their osteoporosis.[8]

Younger women with low bone mineral density (BMD) expressed fears no different from those of women with osteoporosis and fractures.[8] These fears focused on future events such as the pain and disability from fractures, the deformity of kyphosis, potential lack of independence following a hip fracture, and fears regarding the treatment necessary to prevent or treat osteoporosis. Although the women with low BMD were bothered by the fears less frequently during the course of a month than those with osteoporosis and fractures, they still thought about them at least weekly.[2]

There may be several reasons for the family physicians' limited attention to osteoporosis. The definition of osteoporosis is not clinical, but is based on the results of a measurement of bone mineral density (>2.0 or >2.5 standard deviations below peak bone mass of young adults).[9] Severe osteoporosis is osteoporosis plus one or more fragility fractures.[9] Densitometry units are not standardized across manufacturers, and different machines measure different noncomparable anatomical sites: forearm, hip,

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spine, hand. Patients (and physicians) often remain ambivalent and unenthusiastic regarding preventive measures that may result in little benefit for decades. Frightening stories about the unpleasant and potentially dangerous side effects of hormone replacement therapy (HRT) make provocative media copy and are seldom countered with the good news of prevention.

Whatever the reason, although osteoporosis is a burdensome problem for women and the Medicare budget, it is one that women believe physicians ignore in their daily practice. Recent recommendations to family physicians from osteoporosis experts and groups such as the US Preventive Services Task Force seem confusing and contradictory.[10-14] Should women be screened or not? Should women be treated? What treatments are most appropriate and when should they be initiated?

Taken together, however, the data are clear: women should be screened and treated. Screening is not synonymous with BMD assessment. Several researchers have developed and tested clinical screening tools to identify women at high risk, women in whom low bone density is most likely, and therefore women who have the highest risk of osteoporotic fractures.[15,16] While additional studies on large primary care populations are still necessary, clinical screening has been shown to correlate with BMD assessment.[11] Treatment, both preventive and therapeutic, is available and effective.[7]

So what should family physicians do about osteoporosis? We should accept our important role in preventing, modifying, treating, and studying this condition in our primary care of women of all ages, starting with young girls. We need to identify and overcome primary care physicians' barriers to adequate care of osteoporosis. We need to quit making excuses about the lack of patient interest and social acceptance and create the same patient expectation, demand, and enthusiasm that exists for cholesterol screening.

We have limited evidence that education will prevent osteoporosis or osteoporotic fractures, or even increase the percentage of women who are given HRT or the length of time they continue to use HRT.[17,18] We need to continue to study the value of educational intervention. We know, however, that the recommendation of a physician is useful in increasing the use of other preventive care, such as mammography and smoking cessation. Until we have conclusive data that education does not help, the frustration expressed by the women in our focus group study suggests that education is important and desired by young, perimenopausal, and postmenopausal women.

Young girls and young women need information. What is osteoporosis? Should I worry, and what can I do? The message is reasonably simple and clear. Increasing bone density at a young age means having greater bone density at menopause. To increase the peak bone density, we need to assure adequate calcium intake (not just milk) and weight-bearing exercise such as walking, tennis, or jogging. The optimal and minimal amount and type of exercise that affect bone density in women aged 15 to 40 years and the best method to provide an exercise prescription need to be established in clinical studies. Family physicians need to suggest alternatives to dairy products, such as fortified orange juice and broccoli, since many young women give up the calories of milk for diet drinks.

During pregnancy, women need to continue to exercise and take adequate calcium, since both pregnancy and breast feeding have been shown to be associated with a decrease in bone density.[19] This may also be a good time to develop longer term habits, since many pregnant women will comply with nutritional recommendations that affect their babies more readily than suggestions that they believe affect only their own health.

The message for most women prior to menopause continues to be one of prevention: exercise and calcium.[13,20] But the information from the women in our focus groups is clear: women want to discuss the future, including options such as HRT. Hormone replacement therapy should be considered immediately for any woman (except those with contraindications to estrogen therapy) following a hysterectomy and bilateral salpingo-opherectomy.

At menopause and after, each woman and her physician should assess the woman's risk of osteoporosis and whether she should use HRT. Usually, the decision does not require the additional data from a BMD assessment. The reduction in risk of coronary artery disease from HRT is even greater than the benefits accrued from reduced risk of osteoporosis.[21] Therefore, routine BMD screening is unlikely to add any medically useful data to the decision to begin or maintain HRT. But women should also be apprised of the value of HRT in slowing the decline in bone mass. The discussion should be live-

ly and enthusiastic. Information from the medical literature can be quoted to reassure women that the increased risk (if any) of breast cancer from the use of HRT appears to be less than the reduction in risk from cardiovascular disease and osteoporosis.[21]

Routine BMD screening is not advocated or endorsed at this time by either the US Preventive Services Task Force or the Canadian Task Force.[14,22] Bone mass density assessment should be reserved for those women in whom the result will affect therapy.

Routine screening should not be confused with targeted use of BMD measurement in women who have contraindications to HRT, who are unwilling to consider HRT, or who may be at risk for exceptional bone loss because of other medical conditions such as early oophorectomy or steroid use. Routine screening implies that the test is applied to all women who meet certain criteria, such as all postmenopausal women. Targeted assessment is reserved for women in whom therapeutic decisions such as the use of bisphosphonate must be made.

Prevention, whether exercise, diet, or HRT, involves a dedicated effort and long-term commitment by both patient and physician. Practice-based research can help us assess and increase the effectiveness of our efforts and maintain our commitment. We need to begin the prevention process early and to encourage each woman to accept responsibility by helping her understand the disease process and the options available to her.

Do you measure blood pressure? Do you evaluate smoking history in all patients from adolescence on? Do you recommend Pap smears, mammograms, or influenza vaccine? Do you include screening and education regarding osteoporosis risk in preventive care for women 18 to 81? Why not?

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