

GUEST EDITORIAL

Money for Vitamin D Is Well Spent

When I talk with patients about osteoporosis prevention and treatment, I use the analogy of building a house: Calcium and vitamin D are the foundation of the house, and you can't build a house without a foundation.

It is unfortunate that more women are not receiving this message, particularly the lesser-appreciated part of the message that some women need supplementation with 1,000 international units of vitamin D₃ (cholecalciferol)—more than is typically included in supplemental calcium–vitamin D combinations—to have that strong foundation.

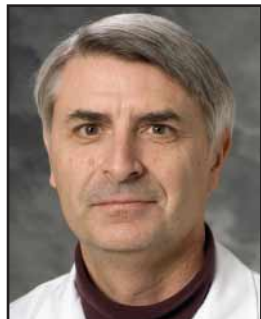
The recently reported Women's Health Initiative study sends an important message. Those healthy postmenopausal women who best adhered to regimens of daily supplementation with calcium and mod-

est amounts of vitamin D₃ (400 IU) had a reduction in fracture risk, while those who were less adherent did not do as well.

But we also must better appreciate the fact that vitamin D inadequacy is common among women receiving osteoporosis therapy—even among women receiving such modest supplementation—and that inadequate vitamin D status is associated with secondary hyperparathyroidism, increased bone turnover, bone loss, diminished muscle strength and function, and increased risk of falls. Vitamin D is simply essential for optimal musculoskeletal health.

If we're going to intervene pharmacologically and spend \$800 a year or more on

osteoporosis drugs, I think that the approximately \$50-\$90 we would spend on testing vitamin D status is money well spent—especially since vitamin D supplementation itself is extremely low cost. There are a number of places where patients can purchase 1,000-IU capsules of vitamin D₃ at a cost of \$1 a month. (I ask patients to purchase vitamin D₃ rather than vitamin D₂ because there is some evidence that patients maintain higher vitamin D blood levels when vitamin D₃ is utilized.)



BY NEIL
BINKLEY, M.D.

We can feel more confident pursuing such a public health approach today than ever before for several reasons: For one, experts have basically agreed that approximately 30 ng/mL of serum 25-hydroxyvitamin D (25OHD) is a good cutoff value for diagnosing vitamin D inadequacy.

Some researchers might still argue whether it should be 26 or 32 ng/mL, but there is now solid, reasonable consensus among international experts on a 30-ng/mL cutoff.

Second, the assays for 25OHD have improved. Until recently, we simply did not have reliable clinical tools for detecting hypovitaminosis D in our patients. Serum 25OHD measurements varied widely between laboratories. For example, I once sent my blood out for testing at six different laboratories and got 25OHD values that ranged from 14 to 41 ng/mL on the same serum.

Today, however, there are at least three good assays that physicians can feel reasonably confident with: DiaSorin RIA [ra-

dioimmunoassay], high-performance liquid chromatography, and tandem mass spectrometry. These assays are widely available. From my experience, I know that the Mayo Clinic's laboratory is among the large labs offering tandem mass spectrometry commercially, and many smaller laboratories are offering the other two tests. Additionally, these tests are commonly covered by patients' insurance plans.

Along with these developments, of course, there is the increasing recognition among experts over the past 5-10 years that vitamin D inadequacy is both harmful and common, even in those women taking multivitamins or combined calcium–vitamin D supplements.

In a study published last year, we looked at 1,500-plus community-dwelling, postmenopausal North American women receiving therapy to treat or prevent osteoporosis. We found that more than half of these women had vitamin D inadequacy. Serum 25OHD was less than 20 ng/mL in 18%, less than 25 ng/mL in 36%, and less than 30 ng/mL in 52%. Such a prevalence isn't surprising. With concerns about skin cancer and premature aging, our patients don't want sun exposure.

Nor should we be surprised any longer by studies documenting the harmful effects of vitamin D inadequacy and the benefits of vitamin D supplementation. Among recent studies: a metaanalysis published 2 years ago in the *Journal of the American Medical Association* showing that vitamin D supplementation reduced the risk of falling among older individuals with stable health by more than 20%, and a randomized, double-blind study published in 2003 in the *British Medical Journal* in which men and women were mailed

one capsule containing 100,000 IU of vitamin D₃ or a placebo every 4 months for 5 years. The total fracture incidence was reduced by 22% in the vitamin D group.

I mention studies that involve both women and men because vitamin D inadequacy can certainly be implicated in osteoporotic fracture risk in men as well as women, and poor bone health and bone deformities in younger individuals as well as older. It's something we need to be attentive to with all our patients.

The population of women receiving osteoporosis therapy, however, is a defined population that we can easily target. It only makes sense that vitamin D testing—and supplementation if necessary—be part of the management strategy for these women.

The Institute of Medicine's Food and Nutrition Board has not reviewed the issue of vitamin D in many years. It seems appropriate to reexamine this issue. The recommended daily intake currently stands at 400-600 IU, while experts agree that we need around 1,000 IU. Among other benefits, a change in the recommended intake for vitamin D could provide added impetus to the food industry to increase the number of foods fortified with vitamin D. Although it would not alleviate the problem—and should not diminish our vigilance as physicians—such change would help. ■

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LETTERS

Laborist Approach Improves Safety

Our specialty has not faced the reality of the importance of patient safety in preventing medical errors ("Physicians On Call: Count the Ways," March 15, 2006, p. 1).

The article addresses various ways of practicing, none of which is unique or attractive to the young people entering our profession. The typical way we structure our workday has led to many preventable medical and system errors, played a major role in the current professional liability crisis, and resulted in our profession becoming less attractive to medical students. But the concept of patient safety or the impairment of physicians who are working 24-hour shifts was not mentioned in the article. Evidence demonstrates that physicians working longer than 18 hours function as with a blood alcohol level of 0.08, which is the national standard for impairment. The article describes a young female physician with four children who takes 24-hour call from evening to evening instead of morning to morning and describes this as an improvement in lifestyle. Another comment is made about a group that reschedules office visits when the physician is needed on call. A third group uses

a "pull back system" where a physician can be on call but returns to the office to see patients. A fourth group uses the laborist approach, but does this as a second job in order to make extra money for expenses.

If our profession is to eliminate preventable medical errors and become more attractive to the graduating medical students, we must change the archaic and dangerous way that we practice. We must realize that patient safety is our No. 1 priority by having people work reasonable hours and be available in a rapid response team approach for any obstetric emergency. An article published by this newspaper on the laborist movement ("Laborist Movement Poised to Take Off," June 15, 2005, p. 1) describes an approach that addresses both patient safety and improved lifestyle for the practitioner. I suggest that those of us that love and profess the importance of our profession to the public remember the following Latin maxim: *Salus populi suprema lex* (The people's safety is the highest law). It is now time for the practice of obstetrics/gynecology to embrace the 21st century.

Louis Weinstein, M.D.
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HPV Vaccine Won't Replace Screening

The article on Gardasil highlights a very important issue about which many physicians may be underinformed: The HPV vaccine will be an important contribution to the elimination of cervical cancer, but will not replace the need for regular screening ("Vaccine Prevents Genital Warts as Well as CIN," Feb. 1, 2006, p. 5).

While the article stresses the importance of the Pap test even when the vaccine is available, it is imperative to inform physicians that the best defense against cervical cancer and high-grade dysplasia, both now and in the future, is routine use of the HPV test in conjunction with the Pap in women aged 30 years and older (those most at risk for cervical cancer).

Use of these two tests together increases the sensitivity to nearly 100%, allowing clinicians to identify virtually everyone who needs to be monitored closely to prevent cancer. (The Pap alone is significantly less sensitive.) Furthermore, guidelines issued by the American Cancer Society and the American College of Obstetricians and Gynecologists recognize its use.

An accompanying article discussed the fact that clinicians who use the HPV test know more about the infection than do clinicians who don't use the test ("All Physicians

Not Up on Latest HPV Information" p. 5).

That said, it is crucial to continue educating physicians about HPV testing so that they can more accurately treat patients before cancer strikes.

I believe that cervical cancer can become the first cancer to be eliminated in our lifetime. But this is only possible if we have the will and the foresight to integrate the best that all of these technologies provide.

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Dr. DeFrancesco has done research and/or consulting for Digene Corp. and Cytoc Corp.

LETTERS

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