

Medical Ideals: Easy to Talk the Talk on Ethics

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Contributing Writer

WASHINGTON — Easier said than done. That may be the take-away message from a study that revealed troubling gaps between physicians' attitudes and behavior when it comes to standards of professionalism.

A national survey of 3,500 primary care and specialist physicians found that 95% said physicians should report incompetent or impaired colleagues. However, only 56% of those who had been in a position to do so, in fact, did.

"It's simply not acceptable that bad physicians aren't being reported to the proper authorities," said Dr. James N. Thompson, president and CEO of the Federation of State Medical Boards, at a press briefing to release the findings.

The survey also showed that 92% of physicians thought they should always report medical errors, but 31% admitted to not doing so on at least one occasion.

"Most physicians are trying to do the right thing, under increasingly difficult circumstances," said Dr. David Blumenthal, director of the Institute for Health Policy at the Massachusetts General Hospital, Boston, and senior author of the study (*Ann. Intern. Med.* 2007; 147:795-802). Those circumstances include not only financial pressures, but also the seemingly constant threat of lawsuits.

"I'm neither surprised nor disheartened by the study's outcome. It just shows that doctors are people," said Dr. Ari Silver-Isenstadt, a pediatrician at Franklin Square Hospital Center in Baltimore.

For example, while 96% of physicians said that they should put the patients welfare above their own financial interests, 84% had accepted food or beverages from drug company representatives.

Smaller percentages of physicians ad-

mitted receiving drug samples, admission to CME events, consulting or speaking fees, travel tickets to sporting events and other industry-provided perks.

Physicians may feel they are not influenced by such marketing, but even the appearance of a conflict can undermine patient trust.

"It took me awhile to recognize that I am just as vulnerable as any other Joe to advertising, but given my fiduciary responsibility to my patients, I have to be

more vigilant," said Dr. Silver-Isenstadt.

Despite everyday obstacles to professionalism, the authors took it as a hopeful sign that physicians have the right attitude.

"We have to create a health care system that is safe for professionalism," said Dr. Blumenthal.

That is borne out by the work of both national groups and more local efforts, said Dr. Peter Cohen, a retired anesthesiologist who chairs the physicians health program for the Medical Society of the

District of Columbia, which steps in when physicians are found to be abusing drugs or alcohol.

"We have hospitals reporting, patients reporting, colleagues reporting. They know that ... they are doing both the drug-abusing physician and society a favor, because these people do get into treatment and over 90% return to practice," said Dr. Cohen, also an adjunct professor of law at Georgetown University, Washington. ■

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Calcium Carbonate or Calcium Citrate?

The two most common calcium salts found in calcium supplements today are calcium carbonate and calcium citrate. Although the leading calcium carbonate product, OS-CAL[®], and a leading calcium citrate, Citracal[®], are both available in formulations which include vitamin D, these products differ in important ways that directly affect patients.

OS-CAL[®] is the only calcium supplement proven to reduce hip fracture risk by **29%**^{1*}

*The National Institutes of Health (NIH) Women's Health Initiative (WHI) Calcium Plus Vitamin D Trial tested whether 36,282 healthy postmenopausal women treated with calcium carbonate and vitamin D3 supplements would have a lower risk of hip fracture than women receiving placebo. A sub-analysis identified a significant 29% reduction in hip fracture risk in patients who were adherent with study medication (OS-CAL[®] 500 mg calcium carbonate plus 200 IU vitamin D3 BID), with adherence defined as taking ≥80% of study medication (n=19,913).¹ Note: calcium plus vitamin D formulations other than the formulations used in the WHI study (supplied by GSK & commercially available only as OS-CAL[®]) would not necessarily produce comparable clinical outcomes.

OS-CAL[®] for Unsurpassed Calcium Absorption

Gastric acidity has no impact. Gastric acid secretion was believed to play a critical role in calcium absorption.² However, research does not bear this out.

- A study of calcium absorption in patients with achlorhydria showed that calcium carbonate supplements had completely normal absorption when taken following a meal, even in achlorhydric patients.³
- A study of the role of gastric acid in calcium absorption demonstrated that a large dose of cimetidine (an H₂ receptor antagonist) which markedly reduced gastric acid secretion did not alter calcium absorption in normal subjects. Moreover, calcium absorption after calcium carbonate ingestion was the same when intragastric contents were maintained at pH 7.4 as when intragastric pH was 3.0.²

Solubility does not guarantee absorption. Calcium citrate is more soluble in water than calcium carbonate, but that does not mean it is absorbed more readily in the body.

- Comparative pharmacokinetic studies using urine and serum tracer methods demonstrated that when supplements were taken with food, calcium carbonate absorption was unsurpassed.^{4,5} Equivalent absorption results were seen in both high- (1000 mg) and low-dose (300 mg) formulation comparisons.⁴
- A 2001 study which compared calcium carbonate (OS-CAL[®]) and calcium citrate (Citracal[®]) showed that these supplements exhibited identical bioavailability values. Since OS-CAL is less expensive than Citracal[®], yet exhibited equivalent bioavailability, OS-CAL is the less expensive of the two per unit of absorbed calcium.⁵

Compliance Is Essential for Fracture Risk Reduction

The paramount role of medication compliance with calcium supplementation was demonstrated in the recent WHI study. Another recent study of calcium supplementation in 1460 vitamin D-sufficient, ambulatory elderly patients, adds further credibility to the importance of compliance. The intention-to-treat analysis did not show reduced fracture risk in calcium patients vs. placebo. However, a per-protocol analysis of calcium patients who took ≥80% of study medication (1200 mg/day calcium carbonate supplements) showed the risk of any clinical osteoporotic fracture was reduced by a factor of 0.34 in compliant patients (absolute risk reduction, 15.4%-10.2%).⁶

OS-CAL[®] Enhances Bisphosphonate Therapy

For clinical benefit from oral bisphosphonate therapy (used in the prevention or treatment of osteoporosis and osteopenia), adequate calcium in the bone is required to allow for osteoblasts to deposit new bone mineral.⁷ The package inserts for bisphosphonates contain statements about supplementing calcium when dietary intake is insufficient.⁸⁻¹¹ The package inserts further advise patients to take bisphosphonate medication on an empty stomach, and warn that calcium supplements may interfere with bisphosphonate absorption and should be taken at a different time of day.⁸⁻¹¹ Unlike Citracal[®], OS-CAL[®] (Calcium carbonate + D₃) labeling states that it is to be taken with food; therefore it will not interfere with bisphosphonate regimens.

Compliance & Cost Considerations

Per pill, OS-CAL[®] provides 60% more elemental calcium, compared to Citracal[®]. It takes two 315m Citracal[®] tablets to surpass the elemental calcium in one compact 500mg OS-CAL[®] tablet. The high concentration of elemental calcium in each OS-CAL[®] tablet means patients take fewer and smaller tablets, potentially enhancing compliance with medication—and saving money.

A cost-effectiveness analysis published in 2001 compared OS-CAL[®] and Citracal[®], and reported:

- The cost of Citracal[®] was 1.5-1.8 times higher than OS-CAL[®] per gram of elemental calcium.⁵
- Providing OS-CAL[®] to all US women aged 75 and older for 2.83 years was estimated to be cost effective, saving \$100 million in hip-fracture-related costs/yr; by contrast, providing Citracal[®] was not estimated to be cost effective.⁵
- The annual cost of providing 1000 mg of OS-CAL[®] was estimated at <\$70 per person.⁵

Conclusion:

Recommend OS-CAL[®] calcium + vitamin D3 supplements for patients at risk for osteopenia or osteoporosis, or who are currently on bisphosphonate therapy, based on unsurpassed absorption, clinically proven efficacy in reducing fracture risk, and superior compliance and cost characteristics.

Gastric acidity was shown to have no impact on calcium carbonate absorption.

Because calcium carbonate has about twice as much elemental calcium as calcium citrate...fewer tablets are required to achieve a given dose of elemental calcium, resulting in decreased cost and a potentially increased rate of patient compliance.⁷ SUNYEZ, 2005

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