

## Long-Term Care Survey Alert

### Clinical Care: Improve Bone Health, Reduce Fractures With Osteoporosis Medications

3 strategies can head off this stealthy disease.

Treating residents for osteoporosis can pay off if you choose the right candidates to receive medication and provide the treatment safely.

Strategy No. 1: Identify who qualifies for treatment. **Thomas Snader, PharmD, CPG**, advocates treating ambulatory patients with "demonstrated symptoms" of osteoporosis or those with diagnostic studies showing they have two times less the normal bone mineral density.

Often the first symptoms of osteoporosis are pain and what's called a "fragility fracture," says **Karen Faler, RN, C-ONC**, past president of the **National Association of Orthopedic Nurses**. Fragility fractures occur when a person falls from standing height or less -- or result from a force that would not ordinarily cause a fracture, Faler tells **Eli**.

Snader sometimes recommends treatment for patients who are not fully ambulatory -- if they have a history of fracture and are at risk for breaking another bone when they ambulate intermittently.

"Occasionally we use therapy to alleviate bone pain in non-ambulatory patients," says Snader, principal of **TCS Pharmacy Consultants** in North Wales, PA.

Skip the scans: Snader doesn't recommend facility-wide bone density scans to detect osteoporosis because the condition is so commonplace. "And physicians often feel obligated to treat residents who have the condition even when the residents aren't good candidates."

Example: Someone with a life expectancy of six months isn't a candidate for osteoporosis medication. "We avoid using the medication for people on hospice care or comfort care," Snader says.

Clinical assessment tip: Recognize that patients receiving long-term older anticonvulsant therapy (phenobarbital, carbamazepine and phenytoin) are at higher risk for osteoporosis and may require treatment, says Snader. The patient may develop problems with bone density within one to two years of taking the anticonvulsant on an ongoing basis, he warns.

Strategy No. 2: Know the therapeutic options. The bisphosphonates (for example, Fosamax, Actonel and Boniva) have become the mainstay of osteoporosis therapy, given in conjunction with adequate amounts of calcium and vitamin D, says **William Simonson, PharmD**, an independent consultant in Suffolk, VA. (For tips on vitamin D and calcium, see the Vol. 9, No. 12 Long-Term Care Survey Alert, p. 118.)

Cost-effective meds: In research studies published to date, bisphosphonates are the only drug found to be cost effective in preventing fractures in women with osteoporosis, adds **Christie Teigland, PhD**, a researcher with the **New York Association of Homes & Services for the Aging**.

Clinical trials showed that Fosamax increased bone mass as much as 8 percent and reduced fractures as much as 30 to 40 percent, says **Colene Byrne, PhD**, outcomes researcher for NYAHS. These benefits occur in as little as six months, which is important because one-third of the fractures occur after a resident has been in the nursing home for a year or even longer, Byrne notes.

Other options: There are also calcitonin nasal sprays (Miacalcin and Fortical), Snader says.

Residents with osteoporosis can also receive Forteo (parathyroid hormone), a daily injection for 24 months, which replaces lost bone. But candidates for this medication should have a life expectancy of at least two years, Snader advises.

The selective estrogen receptor modulator raloxifene has been shown to reduce new vertebral fractures but not nonvertebral fractures, Simonson says. In addition, the medication poses the risk of significant adverse effects, including frequent hot flashes, venous thromboembolism and cataracts, he cautions.

Strategy No. 3: **Strictly follow medication administration requirements for bisphosphonates.** If the physician prescribes an oral bisphosphonate, the patient must be able to swallow the medication with plain water 30 minutes to two hours before ingesting other medications or food, Snader relays. And the person has to be able to remain upright for at least 30 minutes after taking it, he adds. (Read the manufacturer's specific requirements for administering each of the medications.) **Quality assurance tip:** When Simonson consults in long-term care facilities, he routinely examines the medication administration record to be sure the nurses have documented the proper administration time and technique.