

Fall 2000

Underwriting Topic

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Osteoporosis

Osteoporosis, or porous bone, is a disease characterized by low bone mass and structural deterioration of bone tissue, leading to bone fragility and an increased susceptibility to fractures of the hip, spine, and wrist.

(See this link to view the difference between normal bone and osteoporotic bone: <http://www.nof.org/osteoporosis/bonehealth.htm>)



IMPORTANT NOTE:

- Osteoporosis is a major public health threat for more than 28 million Americans, 80 percent of who are women.
- 8 million American women and 2 million American men have osteoporosis. 18 million more Americans have low bone density.
- One out of 2 women and one in 8 men over age 50 will have an osteoporosis-related fracture in their lifetime. While osteoporosis is often thought of as an older person's disease, it can strike at any age.
- Osteoporosis is responsible for more than 1.5 million fractures annually in the U.S which includes:
 - 300,000 hip fractures
 - 700,000 vertebral fractures
 - 250,000 wrist fractures
 - 300,000 fractures at other sites
- The rate of hip fractures in women is 2 to 3 times higher than in men. However, the one-year mortality is nearly twice as high for men as for women following a hip fracture.
- In patients age 50 and over who have a hip fracture there is a 24% mortality in the first year post-fracture.

Symptoms

Osteoporosis is often called the "silent disease" because bone loss occurs without

symptoms. People may not know that they have osteoporosis until their bones become so weak that a sudden strain, bump, or fall causes a fracture or a vertebra to collapse.

Collapsed vertebra may initially felt or seen in the form of severe back pain, loss of height, or spinal deformities such as kyphosis or stooped posture.

Risk Factors

The following risk factors put a person at a higher risk for developing osteoporosis:

- **Female gender**
- **Thin and/or small frame**
- **Advanced age**
- **Family history of osteoporosis**
- **Postmenopause, including early or surgically induced menopause**
- **Abnormal absence of menstrual periods (amenorrhea)**
- **Anorexia nervosa or bulimia**
- **Use of certain medications, such as corticosteroids and anticonvulsants**
- **Inactive lifestyle**
- **Cigarette smoking**
- **Excessive use of alcohol**

(See this link to take a Risk Quiz for osteoporosis: http://www.lvbones.com/EPOC/Risk_Quiz/risk_quiz.html)

Diagnosis & Monitoring of Osteoporosis

Diagnosis of Osteoporosis

Patient History

The patient history identifies osteoporosis risk factors. The more risk factors the higher index of suspicion for osteoporosis.

Laboratory Studies

The key to diagnosis and management of osteoporosis is determining "bone mass." **Bone mineral density (BMD)** tests measure bone density in the spine, wrist, and /or hip (the most common sites of fractures due to osteoporosis) while other tests measure bone mass in the heel or hand. The tests are painless, noninvasive and safe. Bone density tests can:

- **Detect low bone density before a fracture occurs.**
- **Confirm a diagnosis of osteoporosis if the patient has already fractured.**
- **Predict a patient's chances of fracturing in the future.**
- **Determine the current rate of bone loss/or monitor the effects of treatment if the test is conducted at intervals of a year or more.**

(See this link to learn more about the diagnosis of osteoporosis with Bone Mineral Density Measurement: http://www.imaginis.net/osteoporosis/osteo_diagnose.htm)

Treatment

Treatment of Osteoporosis

A comprehensive osteoporosis treatment program includes a focus on proper nutrition, exercise and safety issues to prevent fall that could result in fractures. In addition, medications are available to slow or stop bone loss, increase bone density and reduce fracture risk.

Nutrition

Calcium and vitamin D are needed for strong bones.

(See this link for a chart of the daily calcium requirement based on age, gender and menstrual status: http://www.lvbones.com/EPOC/Prevention/Calcium_Chart/calcium_chart.html)

Exercise

Exercise is an important component of an osteoporosis prevention and treatment program. Exercise not only improves bone health, but it also increases muscle strength, coordination and balance. These benefits hopefully reduce the likelihood of falls, which contribute to fractures.

(See this link for an excellent article on "Exercise for Osteoporosis" by Dr. Warren Katz: <http://www.physsportsmed.com/issues/1998/02feb/katzpa.htm>)


Medications

There are 4 types of medications used to treat and manage osteoporosis:

Estrogen ERT (estrogen replacement therapy) has been shown to reduce bone loss, increase bone density in both the spine and the hip, and reduce the risk of hip and spine fractures in postmenopausal women. ERT is administered most commonly in the form of a pill or skin patch and is effective even when started after age 70. While ERT is not without risk (i.e. increased risk for uterine and breast cancer), these risks need to be weighed against an adverse fracture outcome in women at high risk for osteoporosis.

Raloxifene This medication (**brand name Evista**) is approved for both the prevention and treatment of osteoporosis. It is from a new class of medications called Selective Estrogen Receptor Modulators (SERMs) that appear to prevent bone loss. It has been shown to reduce the incidence of vertebral fractures by 30-50%.

Alendronate This medication (**brand name Fosamax**) is approved for both the prevention and treatment of osteoporosis. It is from a class of medications called bisphosphonates. Alendronate is also used to treat bone loss from steroid medications like cortisone. Like estrogen and raloxifene, alendronate reduces the incidence of fractures.


 **IMPORTANT NOTE:** A new bisphosphonate called risedronate (**brand name Actonel**) has shown excellent clinical success in the largest osteoporosis study to date. Like estrogen, raloxifene, and alendronate, risedronate increases bone mass, stops bone loss and produces healthy bones. In addition, it significantly reduces fractures. Look for this medication to be approved in the near future.

Calcitonin This is a naturally occurring non-sex hormone involved in calcium regulation and bone metabolism. There is evidence that calcitonin in postmenopausal women slows bone loss and increases spinal bone density. It is available in nasal spray and an injectable form.


Underwriting Comment

Most individuals with osteoporosis are insurable for long term care coverage. However, the following questions will assist in determining if their might be underwriting problems:

1. Does the client have any history of falls or compression fractures?

 **IMPORTANT NOTE:** Clients with osteoporosis associated with a fracture are generally declined.

2. Does the client have any functional limitations or disabilities?

 **IMPORTANT NOTE:** Make sure the client is not having problems going up and down stairs or using a medical appliance (i.e. cane) due to problems with stability.

3. What medications is the client taking?

 **IMPORTANT NOTE:** Clients on osteoporosis medication will have their medical files reviewed for any history of a compression fracture.

Coming in the Winter 2001 Long Term Care Tutor Online Newsletter:

Falls in Older Clients