

Nursing Care Plan

A Client with Osteoporosis



Nancy Bauer is a 53-year-old schoolteacher. She has been married for 36 years and has two children. Mrs. Bauer says she is 65 inches tall. She has smoked one pack of cigarettes a day for 30 years and drinks one to two glasses of wine with dinner each evening. She does not routinely exercise. Mrs. Bauer has had symptoms of menopause for 8 years, including hot flashes in the early years and mood swings of late. She has never been on hormone replacement therapy.

Mrs. Bauer is currently seeking medical advice for continuous low back pain. The pain is not relieved with an over-the-counter analgesic, and she frequently wakes up during the night because of the pain.

ASSESSMENT

The nurse practitioner notes that Mrs. Bauer's vital signs are all within normal limits. She has full range of motion of all extremities and is able to stand and bend over, but she reports discomfort when returning to the upright position. Mrs. Bauer has a slightly pronounced "hump" on her upper back and is 1 inch shorter than her stated height on admission. Her muscle strength is symmetric and strong.

DIAGNOSIS

- *Acute pain* of the lower spine, related to vertebral compression
- *Deficient knowledge*, related to osteoporosis and treatment to prevent further damage
- *Imbalanced nutrition: Less than body requirements*, related to inadequate intake of calcium
- *Risk for injury*, related to effects of change in bone structure secondary to osteoporosis

EXPECTED OUTCOMES

- Verbalize a decrease in back pain.
- Be able to describe ways to treat her osteoporosis and prevent further complications.
- Verbalize an understanding of the current research and treatment regarding osteoporosis.

- Verbalize how stopping smoking can help prevent further progression of osteoporosis.
- Seek consultation for supplements and medications to prevent further bone loss.
- Design a program of physical activity to prevent complications of osteoporosis.
- Verbalize safety precautions to prevent fractures due to falls.

PLANNING AND IMPLEMENTATION

- Teach back strengthening exercises.
- Refer to an osteoporosis support group, if available.
- Provide realistic, yet optimistic, feedback about loss of height and bone integrity and the potential outcomes of treatment.
- Assess current knowledge base, and correct misconceptions regarding treatment of osteoporosis.
- Provide current educational literature regarding treatment of osteoporosis.
- Instruct in dietary and calcium supplements that help prevent effects of osteoporosis.
- Discuss physical exercises that help prevent complications due to osteoporosis.
- Review safety and fall precautions, and provide literature regarding how to create a safe home environment.

EVALUATION

On her return visit 6 months later, Mrs. Bauer reports that she feels much better. She is no longer irritable and does not experience mood swings, because she has been taking her prescribed hormone replacements for 6 months. She is eating products rich in calcium and taking a daily supplement of calcium with vitamin D. Mrs. Bauer has reduced her wine intake to one glass in the evening and now drinks decaffeinated coffee and tea. She also states that since she stopped smoking, she has been walking 30 to 45 minutes every day.

(continued)



Nursing Care Plan

Osteoporosis *(continued)*

Critical Thinking in the Nursing Process

1. What is the rationale for stopping smoking and limiting caffeine and alcohol intake in the treatment of osteoporosis?
2. What foods would you encourage for clients at high risk for osteoporosis whose serum cholesterol and LDL/HDL ratios indicate a high risk for cardiovascular disease?
3. What physical activities would you consider beneficial in helping to prevent the effects of osteoporosis in the female client who is wheelchair bound or has limited mobility?
4. Develop a care plan for Mrs. Bauer for the nursing diagnosis, *Risk for trauma*.

See Evaluating Your Response in Appendix C.