

Case Study

Remembering Osteoporosis Prevention

An 80-year old woman is seen by her primary care physician after falling down and sustaining a simple abrasion on her arm. The patient has a history of Alzheimer's disease, macular degeneration, and prior wrist fracture. The physician reviewed her medications and assessed her gait. A home health nurse performed a safety evaluation of her home. The clinicians reviewed an "ACE Card" and were reminded to consider the patient's risk of osteoporosis.

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Remembering to Diagnose and Treat Osteoporosis in Seniors who Present with Falls

Acute Care for Elders (ACE) Program
Aurora Health Care/UW School of Medicine & Public Health

Background Information:

- Many individuals who sustain an osteoporotic fracture remain untreated for osteoporosis.
- Attention is commonly directed toward the injury of a senior who has fallen.
- Work up is often directed to prepare the patient for surgery to repair their fracture.
- The assessment of the senior for falls may neglect the proper evaluation for osteoporosis.
- One in two women and one in three or four men experience a fragility fracture after age 50.
- Some seniors, who present with falls have already had a history of prior fracture, yet have not been diagnosed with osteoporosis.
- The emergency department provider and/or the primary care clinician can initiate the clinical assessment and diagnosis of osteoporosis and formulate the treatment plan.

Directed History:

- Advanced age? Any malignancies? Endocrine diseases?
- Any recent falls? (Seniors may not spontaneously report a fall.)
- New onset of pain of the back, hip, knee, pelvis?
- Any prior history of fractures as an adult?
- Any family history of fragility fracture?
- Current smoking history. Any alcohol abuse?
- Use of oral corticosteroid therapy, anticonvulsants, excessive thyroid replacement?

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Remembering to Diagnose and Treat Osteoporosis in Seniors who Present with Falls

Directed Physical Examination:

- Vital signs: Accurate height measurement; orthostatic blood pressure measurement.
- Constitutional Exam: Kyphoscoliosis, decreased height compared to their adult baseline.
- Back: Local tenderness
- Extremities: Any deformity or leg length discrepancy?
- Neurologic:
 - Any evidence of cognitive impairment?
 - Any Parkinsonism?
 - As appropriate: "Get up and go" gait assessment.
 - Waddling gait of Vitamin D deficiency?
 - Vision assessment.

Laboratory Assessment:

- CBC, Comprehensive metabolic panel, 25-hydroxy Vitamin D level, TSH if patient is taking thyroid supplement.

Imaging:

- Appropriate views of potential fracture site.
- Measurement of lumbar spine and proximal femur DXA bone mineral density, if not recently assessed.

Treatment:

The American College of Physicians recommends that clinicians offer treatment to men and women who have known osteoporosis and those who have experienced fragility fractures.

Reference: Hansen K E., Binkley N., Osteoporosis in Duthie E., Katz P., Malone M., *Practice of Geriatrics 4th ed.* 2007 Saunders Elsevier Publishing.

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This ACE (Acute Care for the Elderly) Card™ on *Remembering Osteoporosis Prevention* was developed by Dr. Michael Malone at Aurora Health Care in Milwaukee, WI. These geriatric care reminder cards will be published in *MPM* as resources to help clinicians manage common conditions that plague elderly patients. The complete series of cards can be ordered from Dr. Malone at Michael.Malone.MD@aurora.org. Michael Malone, MD, is the Medical Director of Senior Services at Aurora Health Care in Milwaukee, WI.