Screen patients for osteoporosis

1 DXA is recommended for all older patients:

- all women ≥ 65 years old
- all men ≥ 70 years old

2 Risk-based DXA screening makes sense for some younger adults.

- **Risk factors** for an osteoporotic fracture include:
  - a prior fragility fracture
  - a parent who had a hip fracture
  - glucocorticoid use
  - diabetes
  - smoking
  - rheumatoid arthritis
  - heavy alcohol use (3 or more drinks per day)
  - low body mass index (e.g., less than 20 kg/m^2)
- Evaluate these risk factors in women 51-64 years old and men < 70 years old.
- Screen with a DXA scan if the patient's **10-year fracture risk exceeds 8.4%** by the FRAX score.

Use the FRAX score to determine 10-year fracture risk.

Calcium and vitamin D in patients with osteoporosis

Ensure patients consume about 1,200 mg per day (4 servings) of calcium from dietary sources. Maintain serum vitamin D level 30-50 ng/mL,[1] supplementing if needed.

Aim for ≥ 4 servings per day of dietary calcium intake.

1 Serving = 300 mg of calcium, equivalent to:

1 cup milk

1 cup yogurt

1 ounce cheese

Daily intake from non-dairy sources
(e.g., bony fish, leafy greens, legumes)

Supplemental calcium is recommended for patients with inadequate dietary intake.

- ≥ 3 servings: no supplement needed
- 1-2 servings: 500-600 mg per day
- 0 servings: 500-600 mg twice a day

Calcium citrate is preferred over calcium carbonate since it more easily absorbed, especially for patients taking a proton pump inhibitor.

Prescribe medication for:

Patients ≥ 50 with:[2-4]

- a history of an osteoporotic fracture, ***or***
- osteoporosis by bone density (T-score ≤ -2.5 at the spine, total hip, femoral neck, or distal radius), ***or***
- osteopenia (T-score -1 to -2.5) ***and*** elevated FRAX score predicting a 10-year risk of ≥ 3% for hip fracture or ≥ 20% for major osteoporotic fracture

Women ≥ 65 with osteopenia:

- (T-score -1 to -2.5 at either the spine, total hip, femoral neck, or distal radius)[5]

Start with a bisphosphonate for most patients.

Does the patient have gastroesophageal reflux disease (GERD), malabsorption (e.g., bariatric surgery, celiac disease), adherence problems, or inability to remain upright for 30 minutes?

NO → Start oral alendronate 70 mg weekly.

YES → Start intravenous zoledronic acid 5 mg yearly.

Patients with creatinine clearance < 35 mL/min should NOT receive a bisphosphonate.

Refer to an endocrine or renal specialist to discuss treatment options.

(1) Bischoff-Ferrari HA, et al. *N Engl J Med*. Jul 5 2012;367(1):40-9. **(2)** Camacho PM, et al. *Endocr Pract*. May 2020;26(Suppl 1):1-46. **(3)** Eastell R, et al. *J Clin Endocrinol Metab*. May 1 2019;104(5):1595-1622. **(4)** LeBoff MS, et al. *Osteoporos Int*. Apr 28 2022. **(5)** Reid IR, et al. *J Intern Med*. Aug 2019;286(2):221-229.

IDIS Independent Drug Information Service

Alosa Health

PACE Pharmaceutical Assistance Contract for the Elderly

Balanced information for better care

These are general recommendations only; specific clinical decisions should be made by the treating clinician based on an individual patient's clinical condition. These materials were made possible by the PACE Program of the Department of Aging of the Commonwealth of Pennsylvania. Links to references can be found at **AlosaHealth.org**. Aug 2022