

PREVENTIVE CARE RECOMMENDATIONS ADULT- AGES 19 AND ABOVE

EVALUATING OSTEOPOROSIS TREATMENT OPTIONS

Intermountain Osteoporosis Algorithm For Evaluating Treatment Options And Monitoring Treatment Effect Using Central DeXA Scanning 11/15/2000

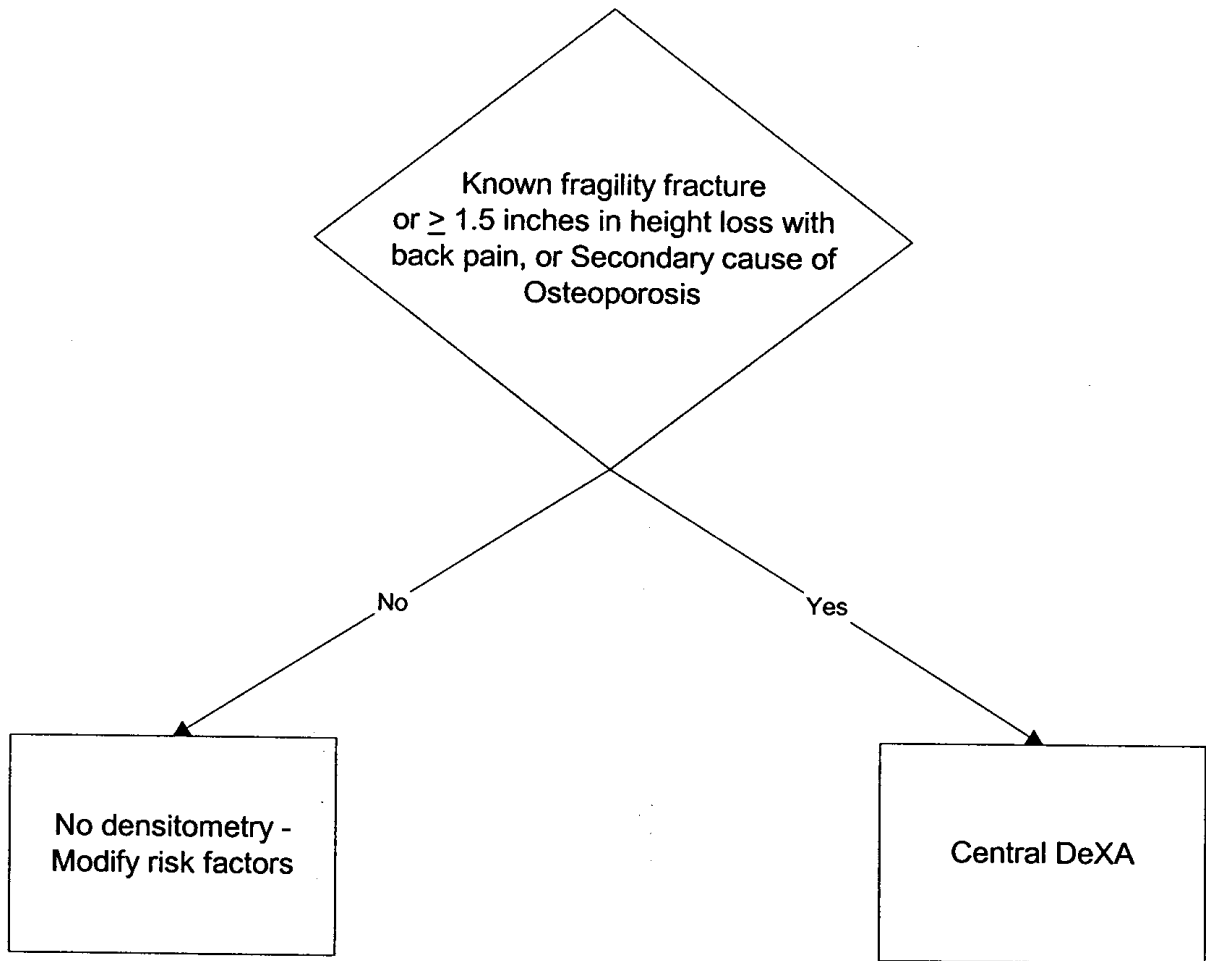
Osteoporosis screening is indicated for those individuals who are at high risk for osteoporotic fractures or who may have a secondary cause of osteoporosis. Flow charts are included for the following scenarios:

- Evaluating the treatment options for Post-menopausal Women
- Evaluating the treatment options for Men and Pre-menopausal Women
- Monitoring the effect of pharmacotherapy treatment of previously diagnosed osteoporosis

Some of the sources used in developing this algorithm include the following: National Osteoporosis Foundation's "Physician's Guide to Prevention and Treatment of Osteoporosis", 2000, "ACE Clinical Practice Guidelines for the Prevention and Treatment of Postmenopausal Osteoporosis", 1996, and PennState Geisinger "Osteoporosis Clinical Practice Guideline".

The method of bone densitometry for screening and monitoring therapy which has been determined to be most effective is Central DeXA scanning. SelectHealth will not consider reimbursement for any other method of bone densitometry.

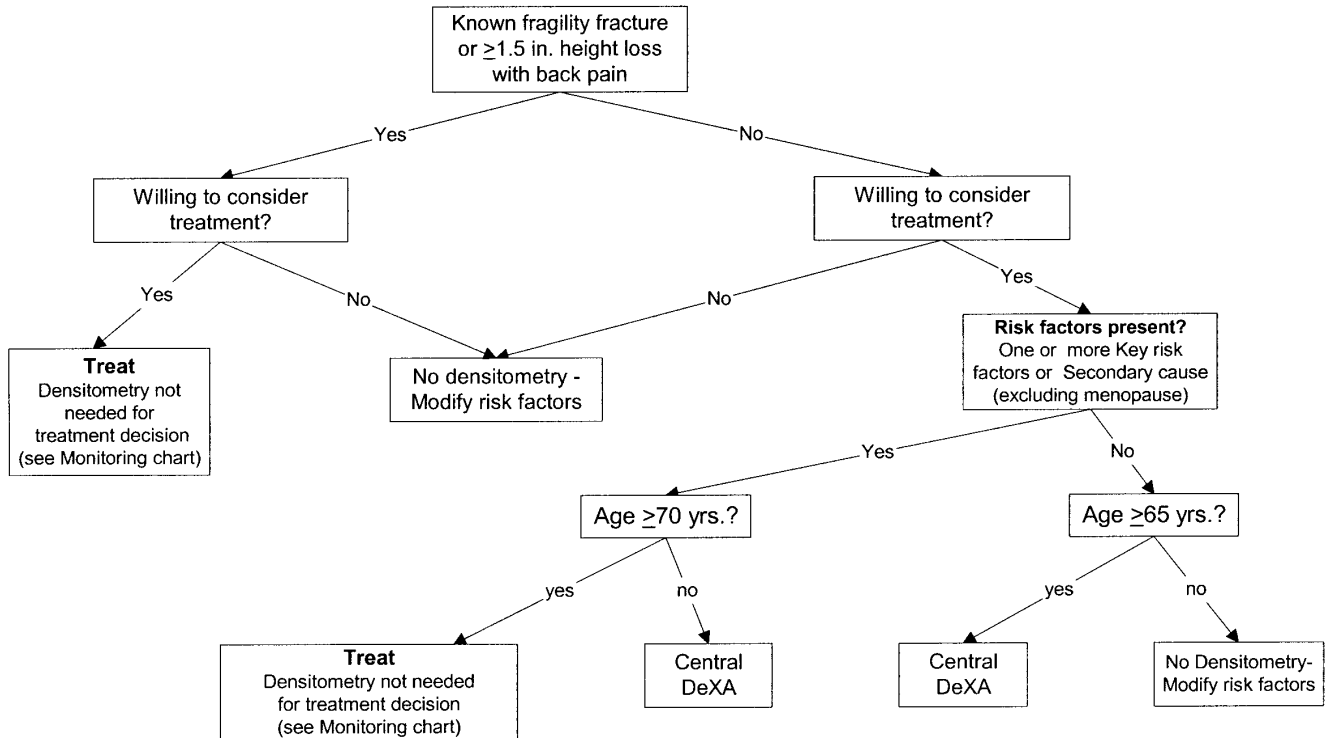
Osteoporosis: Evaluating Treatment Options in Men & Premenopausal Women



Evaluate with central DeXA:

1. baseline prior to initiation or change of treatment which is expected to change bone mineral density (BMD)
2. follow-up no more often than every 2-3 years thereafter to evaluate change in treatment

Osteoporosis: Evaluating Treatment Options in Post-Menopausal Women



Key Risk Factors (per NOF):

- 1) personal history of fragility fracture
- 2) first-degree relative with fragility fracture
- 3) current cigarette smoker
- 4) >10% unintentional weight loss since age 50
- 5) body weight <127 lbs.)

Secondary Causes of Osteoporosis:

Adrenal atrophy and Addison's disease
 Amyloidosis
 Congenital porphyria
 Cushing's syndrome
 Endometriosis, if previously treated with lupron
 Epidermolysis bullosa
 Gastrectomy
 Gonadal insufficiency (primary and secondary)
 Hemochromatosis
 Hemophilia
 Hyperparathyroidism
 Hypophosphatasia
 Idiopathic scoliosis
 Malabsorption syndromes
 Mastocytosis
 Multiple myeloma
 Nutritional disorders i.e. Vit. D or calcium deficiency, anorexia nerv.
 Osteogenesis imperfecta
 Pernicious anemia
 Rheumatoid arthritis, present at least 5 yrs.
 Sarcoidosis
 Severe liver disease, especially primary biliary cirrhosis
 Thalassemia
 Thyrotoxicosis
 Tumor secretion of parathyroid hormone-related peptide

Evaluation Guideline:

- <65 y.o. **without** Key risk factors = no densitometry, modify other risk factors
- <65 y.o. **with** Key risk factors or Secondary Cause = evaluate with DeXA
- ≥ 65 y.o. **without** Key risk factors or 65-69 y.o **with** Key risk factors = evaluate with DeXA
- > 70 y.o. **with** risk factors = treat without evaluation (use baseline DeXA for monitoring treatment)

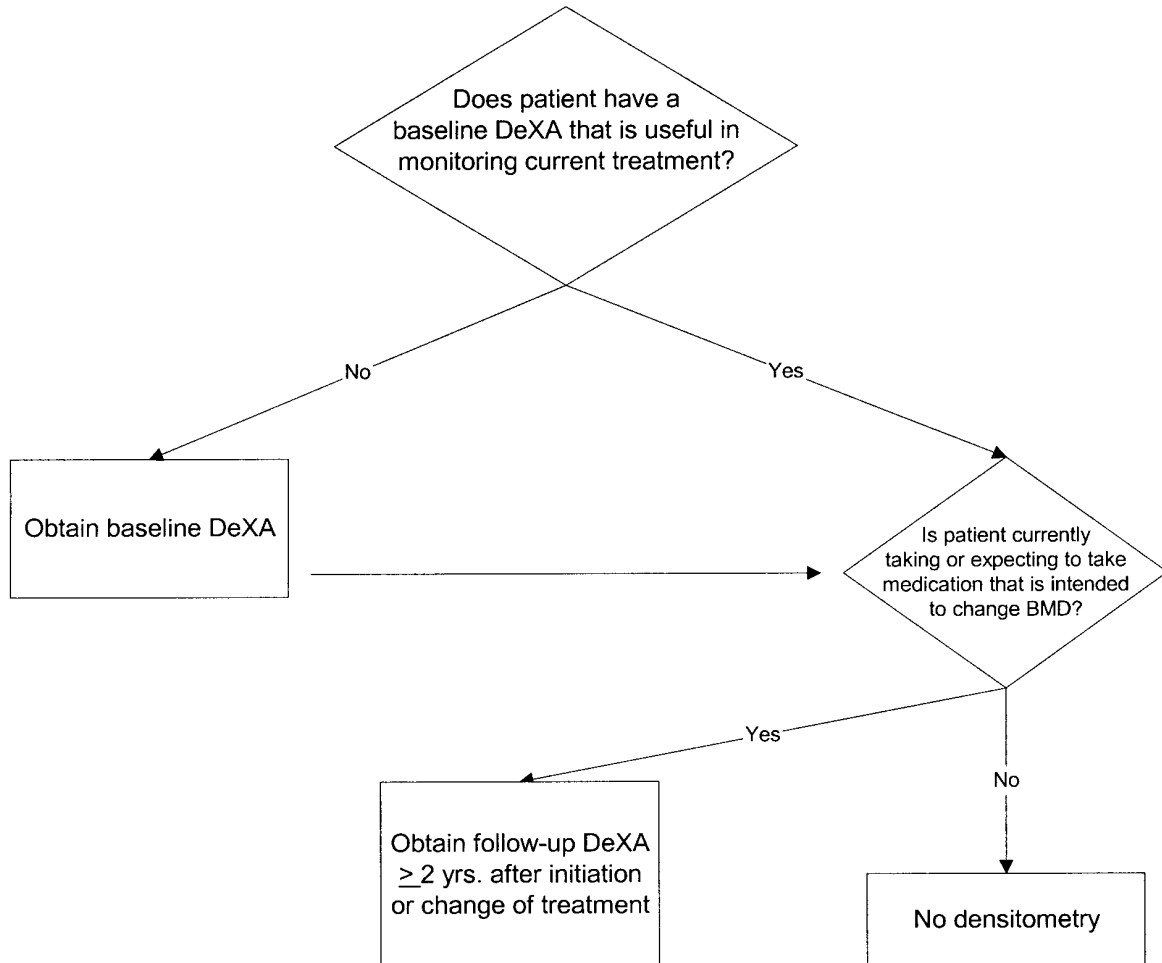
Caveats:

- DeXA indicated only if its use is expected to change patient management decisions
- If HRT is taken principally for other reasons (eg, cardioprotective effect) then DeXA is not indicated
- A work-up may not be indicated if the patient has a terminal or end-stage condition
- A strict QA/QC program is adhered to by facilities providing BMD testing.

Secondary Causes -- Drugs (chronic use / exposure):

Anticonvulsants
 Cytotoxic drugs
 Alcoholism
 Excessive thyroxine
 Glucocorticosteroids and adrenocorticotropin
 Gonadotropin-releasing hormone agonists
 Heparin
 Lithium
 Tamoxifen (premenopausal use)

Osteoporosis: Monitoring Treatment Effect



Monitor treatment :

1. baseline central DeXA
2. initial follow-up DeXA at 2-3 yrs.
3. additional DeXA scans at least 2 years after treatment change (when BMD is expected to change)

Basic treatment plan:

- BMD "T" score < -2.0 sd + no risk factors --> treat
- BMD "T" score < -1.5 sd + risk factors --> treat
- Women >70 yrs. + risk factors --> treat

"Risk factors" = at least one Key or Secondary risk factor (excluding menopause); see Evaluation chart.