



Patient: HECKENDORF, ROBIN

Exam Date: 09/14/2020



BONE DENSITOMETRY, HIP AND SPINE: 9/14/2020

CLINICAL HISTORY: Postmenopausal. Osteoporosis. Previous fracture. Use of calcium supplement and Estrace.

COMPARISON: 09/16/2019

INTERPRETATION:

L-Spine (L1 to L4): 0.935 g/cm<sup>2</sup> Bone Mineral Density (BMD), -1.0 T-Score, 0.6 Z-Score

L1: 0.877 g/cm<sup>2</sup> Bone Mineral Density (BMD), -1.0 T-Score, 0.4 Z-Score

L2: 0.900 g/cm<sup>2</sup> Bone Mineral Density (BMD), -1.2 T-Score, 0.4 Z-Score

L3: 0.970 g/cm<sup>2</sup> Bone Mineral Density (BMD), -1.0 T-Score, 0.7 Z-Score

L4: 0.971 g/cm<sup>2</sup> Bone Mineral Density (BMD), -0.8 T-Score, 0.9 Z-Score

Left Femoral Neck: 0.556 g/cm<sup>2</sup> Bone Mineral Density (BMD), -2.6 T-Score, -1.2 Z-Score

Left Total Hip: 0.687 g/cm<sup>2</sup> Bone Mineral Density (BMD), -2.1 T-Score, -1.0 Z-Score

FRAX Scores: Major Osteoporotic 19%, Hip 4.3%

Classifications are based on data from the World Health Organization.

Normal = -1.0 or above.

Low Bone Mass (Osteopenia) = Between -1.0 and -2.5.

Osteoporosis = -2.5 or below.

Z-Score = The standard deviation from the mean when compared to other patients of the same age.

#### IMPRESSION:

1. The bone mineral density of the total lumbar spine is normal. There is a 12.7% increase since 09/16/2019.
2. The bone mineral density of the total left hip remains in the osteopenia range, with a 5.0% increase since 09/16/2019.
3. The bone mineral density of the left femoral neck remains in the osteoporosis range, with a 5.5% increase since 09/16/2019.
4. The 10 year probability of major osteoporotic fracture is 19%. The 10 year probability of hip fracture is 4.3%.

The FRAX algorithms give the 10-year probability of fracture. The output is a 10-year probability of hip fracture and the 10-year probability of a major osteoporotic fracture (clinical spine, forearm, hip or shoulder fracture).

FRAX should be used in the following patients:

Postmenopausal women or men age 50 and older with BOTH of the following characteristics:

- a. Low bone density (Osteopenia) but not Osteoporosis.
- b. Not taking an osteoporosis medicine; this score is NOT validated in patients on therapy.

Note that FRAX is not intended for use in patients who are currently on medications used to treat or prevent Osteoporosis.

#### RECOMMENDATIONS:

- \*All recommendations are suggestions and physicians should determine individual treatments based on the need of each patient.
- \*BMD T-scores below -2 for all patients without other risk factors for osteoporosis present, and below -1.5 for women with other risk factors present indicates the need for the initiation of therapy.
- \*An evaluation for secondary causes of decreased bone mineral density might be considered if the Z-score is less than -1.5 in a premenopausal female patient or in a male patient.
- \*Adequate intake of dietary calcium and vitamin D.
- \*\*Calcium: At least 1200 mg/d with supplementation as necessary.
- \*\*Vitamin D: Supplementation (400 to 800 IU daily)
- \*Regular weight bearing and muscle strengthening exercise.
- \*Avoidance of tobacco use and alcohol abuse.
- \*Pharmacological options for osteoporosis include hormone therapy replacement, Alendronate, Raloxifene, Ibandronate, Calcitonin and Zoledronic Acid Infusion.
- \*Suggest repeat bone densitometry in 1 to 3 years, depending on patient's risk factors.

This exam was performed on a Hologic Bone Densitometry unit.

A copy of this report will be mailed to the patient.

Nidhi Sharma, MD

Electronically Signed: 9/15/2020 8:46 AM