**Coverage Summary**

**Bone Density Studies/Bone Mass Measurements**

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<td>Approved by: UnitedHealthcare Medicare Benefit Interpretation Committee</td>
<td>Last Review Date: 03/21/2017</td>
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Related Medicare Advantage Policy Guideline: Bone (Mineral) Density Studies (NCD 150.3)

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The benefit information in this Coverage Summary is based on existing national coverage policy, however Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable.

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### I. COVERAGE

**Coverage Statement:** Bone (mineral) density studies/mass measurements are covered when Medicare coverage criteria are met.

**Guidelines/Notes:**

1. **Conditions for Coverage**

   Bone (mineral) density study/bone mass measurement (BMM) is covered under the following conditions:

   a. Is ordered by the physician or qualified nonphysician practitioner who is treating the member following an evaluation of the need for a BMM and determination of the appropriate BMM to be used.

   A physician or qualified nonphysician practitioner treating the beneficiary for purposes of this provision is one who furnishes a consultation or treats a beneficiary for a specific medical problem, and who uses the results in the management of the patient. For the purposes of the BMM benefit, qualified nonphysician practitioners include physician...
assistants, nurse practitioners, clinical nurse specialists, and certified nurse midwives.

b. Is performed under the appropriate level of physician supervision.

c. Is reasonable and necessary for diagnosing and treating the condition of a member who meets the conditions described in #2 (Qualified Individuals) below.

c. In the case of an individual being monitored to assess the response to or efficacy of an FDA-approved osteoporosis drug therapy, is performed with a dual-energy x-ray absorptiometry system (axial skeleton).

d. In the case of any individual who meets the conditions in #2 (Qualified Individuals) below and who has a confirmatory BMM, is performed by a dual-energy x-ray absorptiometry system (axial skeleton) if the initial BMM was not performed by a dual-energy x-ray absorptiometry system (axial skeleton). A confirmatory baseline BMM is not covered if the initial BMM was performed by a dual-energy x-ray absorptiometry system (axial skeleton).

2. **Qualified Individuals**

Qualified individuals are individuals who meet at least one of the following:

a. An estrogen deficient woman at clinical risk for osteoporosis based upon her medical history or other findings; as determined by her physician (or a qualified non-physician practitioner).

b. An individual with vertebral abnormalities as demonstrated by an x-ray to be indicative of osteoporosis, osteopenia or vertebral fracture.

c. An individual receiving (or expected to receive) glucocorticoid (steroid) therapy equivalent to an average of 5 mg of prednisone, or greater, per day, for more than 3 months.

d. An individual with primary hyperparathyroidism.

e. An individual being monitored to assess the response to, or efficacy of, an FDA approved osteoporosis drug therapy regime.

3. **Frequency Standards**

Bone mass measurement may be covered once every 2 years (if at least 23 months have passed since the month the last bone mass measurement was performed). However, if medically necessary, bone mass measurement may be covered more frequently than every 2 years. Examples of situations where more frequent bone mass measurement procedures may be medically necessary include, but are not limited to the following circumstances:

- Monitoring beneficiaries on long-term glucocorticoid (steroid) therapy of more than 3 months; and
- Confirming baseline BMMs to permit monitoring of beneficiaries in the future.

4. **Non-covered BMMs**

The following BMMs are non-covered because they are not considered reasonable and necessary:

- Single photon absorptiometry
- Dual photon absorptiometry

Local Coverage Determinations (LCDs) exist and compliance with these policies is required where applicable. See the LCDs for Bone Mass Measurement and Bone Mineral Density Studies. (Accessed March 14, 2017)

Also see the Medicare Preventive Services Bone Mass Measurements at https://www.cms.gov/Medicare/Prevention/PrevntionGenInfo/medicare-preventive-services/MPS-QuickReferenceChart-1.html. (Accessed March 14, 2017)

### II. DEFINITIONS

**Bone (Mineral) Density Studies/Bone Mass Measurement (BMM):** A radiologic, radioisotopic, or other procedure that meets all of the following conditions: (1) Is performed to identify bone mass, detect bone loss, or determine bone quality. (2) Is performed with either a bone densitometer (other than single-photon or dual-photon absorptiometry) or a bone sonometer system that has been cleared for marketing for BMM by the Food and Drug Administration (FDA) under 21 CFR part 807, or approved for marketing under 21 CFR part 814. (3) Includes a physician’s interpretation of the results. Medicare Benefit Policy Manual, Chapter 15, §80.5 - Bone Mass Measurements (BMMs) at https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c15.pdf. (Accessed March 14, 2017)

**Normal Bone Mass Density (BMD):** As defined by the World Health Organization (WHO), bone mineral density (BMD) is within 1 standard deviation (SD) (+1 or -1) of “normal young” adult. T-score is the number of standard deviations above or below the mean BMD for “normal young” adults. NIH Osteoporosis and Related Bone Diseases National Resource Center. available at https://www.niams.nih.gov/health_info/bone/Bone_Health/bone_mass_measure.asp. (Accessed March 14, 2017)

**Osteopenia (low bone mass):** As defined by the World Health Organization (WHO), BMD is between 1 and 2.5 SD of a “normal young” adult (T-score between −1 and −2.5). Osteopenia is also a term used by radiologists to indicate that the bones on a plain x-ray film appear to be of decreased mineral content. NIH Osteoporosis and Related Bone Diseases National Resource Center. available at https://www.niams.nih.gov/health_info/bone/Bone_Health/bone_mass_measure.asp. (Accessed March 14, 2017)

**Osteoporosis:** As defined by the World Health Organization (WHO), BMD is 2.5 SD or lower than that of a “normal young” adult (T-score at or below -2.5). NIH Osteoporosis and Related Bone Diseases National Resource Center. Available at https://www.niams.nih.gov/health_info/bone/Bone_Health/bone_mass_measure.asp. (Accessed March 14, 2017)

**Severe Osteoporosis:** As defined by the World Health Organization (WHO), BMD is more than 2.5 SD lower than that of a “normal young” adult (T-score -2.5 or lower) and who have also suffered a fragility fracture. NIH Osteoporosis and Related Bone Diseases National Resource Center. available at https://www.niams.nih.gov/health_info/bone/Bone_Health/bone_mass_measure.asp. (Accessed March 14, 2017)

### III. REFERENCES
IV. REVISION HISTORY

03/21/2017  Annual review with the following updates:
- Changed reference from *Medicare Preventive Services Preventive* Guide for Physicians, Providers, Suppliers and Other Health Professionals (no longer available) to *Medicare Preventive Services Bone Mass Measurements*.
- Changed reference for the definition of Osteoporosis from *The John Hopkins Arthritis Center* to *NIH Osteoporosis and Related Bone Diseases National Resource Center*.

03/15/2016  Annual review; no updates.
03/24/2015  Annual review; no updates.
03/18/2014  Annual review; no updates.
04/29/2013  Annual review, no updates.
04/23/2012  Annual review, no updates.
04/26/2011  Annual review: Guidelines #1 (Coverage Criteria) was updated to include detailed criteria based on the Medicare Benefit Policy Manual Chapter 15, 80.5 BMMs; added Guidelines #4 (Non-Covered BMSs); updated the definition of BMM in Section II (Definitions).