Bone Mineral Density Studies

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Approved By:	Highmark Health Options – Market Leadership
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Products:	Medicaid
Application:	All participating hospitals and providers
Page Number(s):	1 of 6

Disclaimer

Highmark Health Options medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

POLICY STATEMENT

Highmark Health Options may provide coverage under the medical-surgical benefits of the Company's Medicaid products for medically necessary benefits.

This policy is designed to address medical necessity guidelines that are appropriate for the majority of individuals with a particular disease, illness or condition. Each person's unique clinical circumstances warrant individual consideration, based upon review of applicable medical records.

The qualifications of the policy will meet the standards of the National Committee for Quality Assurance (NCQA) and the Delaware Department of Health and Social Services (DHSS) and all applicable state and federal regulations.

DEFINITIONS

Highmark Health Options (HHO) – Managed care organization serving vulnerable populations that have complex needs and qualify for Medicaid. Highmark Health Options members include individuals and families with low income, expecting mothers, children, and people with disabilities. Members pay nothing to very little for their health coverage. Highmark Health Options currently services Delaware Medicaid: Delaware Healthy Children Program (DHCP) and Diamond State Health Plan Plus LTSS (DSHP Plus LTSS) members.

POLICY POSITION

Prior authorization is required.

Bone mineral density (BMD) testing is a widely available clinical tool for screening and diagnosing osteoporosis. These studies are also used to predict fracture risk and monitor response to therapy. Bone mineral density can be measured using different techniques in a variety of central (i.e., hip or spine) or peripheral (i.e., wrist, finger, heel) sites.

The following technologies are most commonly used to measure BMD.

Dual-energy x-ray absorptiometry – (DXA) is recommended by the National Osteoporosis Foundation (NOF) for bone density test of the spine, hips and pelvis to diagnose osteoporosis. When testing cannot be done on the spine, hips and pelvis, NOF suggests a central DXA test of the radius bone in the forearm. DXA can also be used to measure peripheral sites, such as the wrist and finger. DXA is non-invasive and provides precise measurements of bone density with minimal radiation.

Portable Peripheral Bone Density testing – Portable devices that can determine BMD at peripheral sites such as the radius, phalanges, or calcaneus.

Single Photon Absorptiometry (SPA) and Dual-Photon Absorptiometry (DPA) – Measure bone mineral content at the distal radius (SPA) and the spine and hip (DPA) using photons emitted at low energy levels.

Routine bone density studies

Routine bone density studies performed as a screening test for osteoporosis are eligible for members with coverage for preventive health services according to the preventive scheduled published annually.

Frequency guidelines

Coverage for eligible bone density studies is limited to one test every two (2) years from the date of the previous bone density study, regardless of the anatomic area tested or imaging modality used to perform the study. However, more frequent bone mass measurements may be considered medically necessary under the following circumstances:

- To allow simultaneous axial (spine, hips, pelvis) and peripheral (forearm, radius, wrist) bone density testing for hyperparathyroidism; or
- To allow peripheral (forearm, radius, wrist) bone density testing in lieu of the axial skeleton (spine, hips, pelvis) in the very obese individual (defined as an individual with a BMI of 35 or greater) when the individual's weight exceeds the weight limit for the DXA table; or
- To allow peripheral (forearm, radius, wrist) bone density testing when the hips or spine cannot be measured or interpreted because of severe arthritis and/or previous surgery.

When a bone density study is reported with a diagnosis code that is covered under the "general coverage" criteria, but the service falls within the two (2) years frequency limitation and the diagnosis or condition is not one that meets the expanded criteria described above, it will be denied as not medically necessary.

General coverage guidelines

Bone density studies may be considered medically necessary for **ANY ONE** of the following indications:

- Women age 65 and older; or
- Men age 70 and older; or
- Post-menopausal individuals above age 50-69, based of risk factor profile; or
- Post-menopausal individuals age 50 and older who have had an adult age fracture, to diagnoses and determine degree of osteoporosis; or
- The individual is on long-term steroid therapy (three (3) month duration or longer with a dosage of five (5) mg per day of prednisone, or equivalent); or
- The individual is on long-term anticonvulsant therapy (e.g., Phenytoin, Dilantin) (three (3) month duration or longer); or

- To determine if significant osteoporosis is present when associated with vertebral abnormalities on x-ray (such as compression fractures) or radiographic evidence of osteopenia; or
- Fractures of the hip, wrist, or spine in the absence of appropriate severe trauma; or
- Documented loss of height of 1.5 inches or greater; or
- To monitor and evaluate response to ongoing restorative treatment (e.g., Fosamax) for individuals with documented osteoporosis; or
- The individual suffers from one of the following calcium-wasting endocrinopathies:
  - Cushing's Syndrome
  - Hyperparathyroidism;
  - Hyperthyroidism;
  - Hypogonadism (except for uncomplicated, naturally occurring, or surgically induced post-menopausal clinical cases);
  - Prolactinoma;
  - Celiac Sprue; or
- The individual has prostate cancer with androgen deprivation; or
- Eating disorders, including anorexia nervosa and bulimia; or
- Breast cancer patients who are on aromatase inhibitors.

DXA for pediatrics (until age 19) may be considered medically necessary when ANY ONE of the following is met:

- Prolonged use of glucocorticoid or corticosteroid therapy; or
- Chronic inflammatory disease; or
- Hypogonadism; or
- Idiopathic juvenile osteoporosis; or
- Long-term immobilization; or
- Osteogenesis imperfecta; or
- Completion of chemotherapy two (2) years prior to ordering DXA.

The provider must submit medical records and/or additional documentation to determine coverage in the above situations.

Bone density studies for all other indications are considered not medically necessary.

ELIGIBLE PROCEDURE CODES

CPT code	Description
77078	Computed tomography, bone mineral density study, 1 or more sites; axial skeleton (e.g., hips, pelvis, spine).
77080	Dual-energy x-ray absorptiometry (DXA), bone density study, 1 or more sites; axial skeleton (e.g., hips, pelvis, spine).
77081	Dual-energy x-ray absorptiometry (DXA), bone density study, 1 or more sites; appendicular skeleton (peripheral) (e.g., radius, wrist heel).

ELIGIBLE DIAGNOSIS CODES FOR PROCEDURE CODES 77078, 77080 AND 77081

Codes						
C75.1	C75.2	D35.2	D35.3	D44.3	D44.4	D49.7
E05.00	E05.01	E05.10	E05.11	E05.20	E05.21	E05.30

E05.31	E05.40	E05.41	E05.80	E05.81	E05.90	E05.91
E21.0	E21.1	E21.2	E21.3	E24.0	E24.2	E24.3
E24.4	E24.8	E24.9	E28.310	E28.319	E28.319	E29.1
E74.20	E74.21	E74.29	E89.40	E89.41	E89.5	F50.00
F50.01	F50.02	F50.2	F50.81	F50.82	F50.89	G40.001
G40.009	G40.011	G40.019	K50.00	K50.011	K50.012	K50.013
K50.014	K50.018	K50.019	K50.10	K50.111	K50.112	K50.113
K50.114	K50.118	K50.119	K50.90	K50.911	K50.912	K50.913
K50.914	K50.918	K50.919	K90.0	K90.49	K90.89	K90.9
M48.50XA	M48.51XA	M48.52XA	M48.53XA	M48.54XA	M48.55XA	M48.56XA
M48.57XA	M48.58XA	M80.00XA	M80.00XD	M80.0AXA	M80.0AXD	M80.0AXG
M80.0AXK	M80.0AXP	M80.0AXS	M80.011A	M80.011D	M80.011G	M80.011K
M80.011P	M80.011S	M80.012A	M80.012D	M80.012G	M80.012K	M80.012P
M80.012S	M80.021A	M80.021D	M80.021G	M80.021K	M80.021P	M80.021S
M80.022A	M80.022D	M80.022G	M80.022K	M80.022P	M80.022S	M80.031A
M80.031D	M80.031G	M80.031K	M80.031P	M80.031S	M80.032A	M80.032D
M80.032G	M80.032K	M80.032P	M80.032S	M80.039A	M80.041A	M80.041D
M80.041G	M80.041K	M80.041P	M80.041S	M80.042A	M80.042D	M80.042G
M80.042K	M80.042P	M80.042S	M80.051A	M80.051D	M80.051G	M80.051K
M80.051P	M80.051S	M80.052A	M80.052D	M80.052G	M80.052K	M80.052P
M80.052S	M80.059A	M80.059D	M80.061A	M80.061D	M80.061G	M80.061K
M80.061P	M80.061S	M80.062A	M80.062D	M80.062G	M80.062K	M80.062P
M80.062S	M80.069A	M80.071A	M80.071D	M80.071G	M80.071K	M80.071P
M80.071S	M80.072A	M80.072D	M80.072G	M80.072K	M80.072P	M80.072S
M80.08XA	M80.08XD	M80.08XG	M80.08XK	M80.08XP	M80.08XS	M80.80XS
M80.8AXA	M80.8AXD	M80.8AXG	M80.8AXK	M80.8AXP	M80.8AXS	M80.811A
M80.811D	M80.811G	M80.811K	M80.811P	M80.811S	M80.812A	M80.812D
M80.812G	M80.812K	M80.812P	M80.812S	M80.819P	M80.819S	M80.821A
M80.821D	M80.821G	M80.821K	M80.821P	M80.821S	M80.822A	M80.822D
M80.822G	M80.822K	M80.822P	M80.822S	M80.831A	M80.831D	M80.831G
M80.831K	M80.831P	M80.831S	M80.832A	M80.832D	M80.832G	M80.832K
M80.832P	M80.832S	M80.839A	M80.841A	M80.841D	M80.841G	M80.841K
M80.841P	M80.841S	M80.842A	M80.842D	M80.842G	M80.842K	M80.842P
M80.842S	M80.851A	M80.851D	M80.851G	M80.851K	M80.851P	M80.851S
M80.852A	M80.852D	M80.852G	M80.852K	M80.852P	M80.852S	M80.859A
M80.859G	M80.861A	M80.861D	M80.861G	M80.861K	M80.861P	M80.861S
M80.862A	M80.862D	M80.862G	M80.862K	M80.862P	M80.862S	M80.871A
M80.871D	M80.871G	M80.871K	M80.871P	M80.871S	M80.872A	M80.872D

M80.872G	M80.872K	M80.872P	M80.872S	M80.88XA	M81.0	M81.6
M81.8	M84.431A	M84.432A	M84.433A	M84.434A	M84.439A	M84.451A
M84.452A	M84.459A	M84.48XA	M84.531A	M84.532A	M84.533A	M84.534A
M84.539A	M84.551A	M84.552A	M84.553A	M84.559A	M84.58XA	M84.631A
M84.632A	M84.633A	M84.634A	M84.639A	M84.651A	M84.652A	M84.653A
M84.659A	M84.68XA	M85.831	M85.832	M85.841	M85.842	M85.85
M85.851	M85.852	M85.859	M85.861	M85.862	M85.869	M85.871
M85.872	M85.879	M85.88	M85.89	M85.9	M89.9	M94.9
Q78.0	R29.890	R93.6	R83.7	Z78.0	Z79.51	Z79.52
Z79.811	Z92.21	Z92.240	Z92.241	Z79.818	Z79.890	Z79.899

PAYMENT FOR AN ADDITIONAL BONE DENSITY STUDY WITHIN THE ONE (1) EVERY TWO (2) YEARS FREQUENCY LIMITATION FOR THE FOLLOWING DIAGNOSIS CODES

Codes						
E21.0	E21.1	E21.2	E21.3	Z68.35	Z68.36	Z68.37
Z68.38	Z68.39	Z68.41	Z68.42	Z68.43	Z68.44	Z68.45

NONCOVERED SERVICES

Single Photon Absorptiometry (SPA), Dual-Photon Absorptiometry (DPA), and radiographic absorptiometry (e.g., photodensitometry, radiogrammetry) are considered not medically necessary.

BMD measurement using ultrasound densitometry and/or quantitative computed tomography are considered experimental/investigational and, therefore, non-covered because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature.

References

ACR Appropriateness Criteria. Osteoporosis and bone mineral density. 2016.

Adams AL, Fischer H, Kopperdahl DL, et al. Osteoporosis and Hip Fracture Risk From Routine Computed Tomography Scans: The Fracture, Osteoporosis, and CT Utilization Study (FOCUS). J Bone Miner Res. 2018;33(7):1291-1301. Accessed March 19, 2019.

Adler RA, El-Hajj Fuleihan G, Bauer DC, et al. Managing osteoporosis in patients on long-term bisphosphonate treatment: Report of a task force of the American society for bone and mineral research. J. Bone Miner. Res. 2016;31(10).

Crandall CJ, Hovey KM, Andrews CA, et al. Bone mineral density as a predictor of subsequent wrist fractures: findings from the Women's Health Initiative Study. J Clin Endocrinol Metab. 2015;100(11):4315-4324.

Expert Panel on Musculoskeletal I, Ward RJ, Roberts CC, et al. ACR Appropriateness criteria osteoporosis and bone mineral density. J Am Coll Radiol. 2017;14(5S): S189-S202.

Kleerekoper, M. (2017) Screening for osteoporosis. In C.J. Rosen (Ed.) UpToDate.

Leslie WD, Brennan-Olsen SL, Morin SN, et al. Fracture prediction from repeat BMD measurements in clinical practice. Osteoporos Int. 2016;27(1):203-210.

Qaseem A, Forciea MA, McLean RM, Denberg TD. Clinical Guidelines Committee of the American College of P. Treatment of Low Bone Density or Osteoporosis to Prevent Fractures in Men and Women: A Clinical Practice Guideline Update From the American College of Physicians. Ann Intern Med. 2017;166(11):818- 839. Accessed March 19, 2019.

U.S. Preventive Services Task Force (USPSTF). Osteoporosis to Prevent Fractures: Screening. 2018.

U.S. Preventive Services Task Force (USPSTF). Screening to Prevent Osteoporotic Fractures: An Evidence Review for the U.S. Preventive Services Task Force. 2018.

POLICY UPDATE HISTORY

07/27/2022	Approved in Medical Policy Committee
08/2022	Approved in QI/UM
05/24/2023	Approved in Medical Policy Committee
05/30/2023	Approved in QI/UM