

**FIRST COAST SERVICE OPTIONS
FLORIDA MEDICARE PART B
LOCAL COVERAGE DETERMINATION**

CPT/HCPCS Codes

78300 Bone and/or joint imaging; limited area

78305 multiple areas

78306 whole body

78315 three phase study

78320 tomographic (SPECT)

LCD Number

78300

LCD Database ID Number

L13841

Contractor Name

First Coast Service Options, Inc.

Contractor Number

00590

Contractor Type

Carrier

LCD Title

Bone and/or Joint Imaging

AMA CPT Copyright Statement

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CMS National Coverage Policy

N/A

Primary Geographic Jurisdiction

Florida

Secondary Geographic Jurisdiction

N/A

CMS Region

Region IV

CMS Consortium

Southern

Original Determination Effective Date

06/30/2003

Original Determination Ending Date

N/A

Revision Effective Date

09/13/2005

Revision Ending Date

09/12/2005

Indications and Limitations of Coverage and/or Medical Necessity

Bone and/or joint imaging, also known as a bone scan, skeletal scintigraphy, or a radionuclide bone scan is a nuclear medicine study utilizing an intravenous injection of a technetium-99m phosphonate radiopharmaceutical which localizes in bone with intensity proportional to the degree of metabolic activity present. This diagnostic study records the distribution of this radioactive tracer in the skeletal system in planar (two-dimensional) and/or tomographic (three-dimensional) images normally 2-4 hours after the injection of the radiopharmaceutical agent.

A whole body bone scan produces planar images of the skeleton including anterior and posterior views of the axial skeleton. Anterior and/or posterior views of the appendicular skeleton are also obtained. Additional views may be obtained as needed. The limited bone scan records images of only a portion of the skeleton.

Bone single photon emission computed tomography (SPECT) produces a tomographic image of a portion of the skeleton. This technique increases diagnostic accuracy by improving sensitivity, providing more precise localization of the radiopharmaceutical, and allowing improved visualization of subtle abnormalities.

Three-phase imaging, also known as multiphase bone scintigraphy consists of blood flow images, immediate images and delayed images and is utilized to distinguish skeletal from soft-tissue infection. The blood flow images consist of a dynamic sequence of planar images of the area of greatest interest obtained

as the tracer is injected. The immediate (blood pool) images consist of one or more static planar images of the areas of interest, obtained within 10 minutes after injection of the tracer. Delayed images may be limited to the areas of interest or may include the whole body, may be planar or tomographic, and are usually acquired 2 to 5 hours after injection. Further additional images obtained up to 24 hours following the tracer injection may be obtained if necessary.

Florida Medicare will consider bone and/or joint imaging medically reasonable and necessary for the following indications:

- Extraskelatal primary malignancies for the presence of metastatic disease. The application of imaging in these patients include initial staging, protocol monitoring in response to chemotherapy and decision to change therapy, radiation therapy for treatment field planning and response to radiation therapy, and detection of areas at risk for pathological fracture.
- Primary malignant bone tumors when metastasis is suspected. Normally, plain radiographs, CT and MRI are a better diagnostic test to portray the tumor margins in bone and allow assessment of soft tissue extent. However, a whole body scan is appropriate to assess osseous metastasis.
- Benign bone tumors including osteoid osteomas, osteochondromas, chondroblastomas and enchondromas.
- Skeletal trauma to evaluate the presence of occult fractures when the initial standard radiographic procedure is normal and the clinical presentation is highly suspicious of fracture.
- Assessing the full extent of injury in patients with multiple injuries.
- Athletic injuries to evaluate for stress fractures and shin splints.
- Determine bone viability in infarction, osteonecrosis, and grafts.
- Osteomyelitis. The evaluation of osteomyelitis is performed utilizing the triple-phase bone scan. This technique is used to differentiate osteomyelitis from cellulitis.
- Diagnosis and evaluation of musculoskeletal infections to rule out bone involvement. A triple-phase bone scan is utilized for this indication.
- Metabolic bone disease such as osteoporosis and Paget's Disease when the results of the bone scan will be used to guide treatment.
- Diagnosis and evaluation of reflex sympathetic dystrophy. The evaluation of reflex sympathetic dystrophy is performed utilizing the triple-phase bone scan.
- Evaluate a prosthetic joint for loosening or infection.
- Unexplained musculoskeletal pain when the initial standard radiographic procedure fails to determine the etiology and a musculoskeletal etiology is suspected.
- Evaluation of abnormal radiographic findings or abnormal laboratory findings demonstrating skeletal involvement.
- Determine the distribution of osteoblastic activity prior to therapy with strontium-89.

Note: as indicated above, the triple-phase bone scan is normally utilized to evaluate, but not limited to: trauma, neoplasm, and osteomyelitis; diagnose and evaluate musculoskeletal infections to rule out bone involvement; and to diagnose and evaluate reflex sympathetic dystrophy. Therefore, it is expected that this technique is utilized to evaluate these conditions.

Skeletal scintigraphy is a sensitive marker of both osteoarthritis and rheumatoid arthritis. Numerous attempts have been made over the last two decades to develop scintigraphic techniques for staging the severity of arthritis and assessing response to therapy. These have been largely unsuccessful, and skeletal scintigraphy, although not common, may be used to evaluate arthritis in current clinical practice.

It is expected that a whole body scan (procedure code 78306) is performed only when an evaluation of the entire skeletal system is necessary, such as the evaluation for metastatic disease, or for the evaluation of localized pain of unknown etiology. A limited or multiple area body scan is medically necessary when the patient's signs, symptoms, or condition is limited to a certain body area. For example, it is expected that a limited bone scan be performed on patients with a stress fracture of the foot. A multiple area body scan is necessary in conditions in which more than one body area is affected, however, a total assessment of the skeletal system is not needed. A triple-phase body scan is medically necessary for the assessment of the skeletal system to differentiate a skeletal infection versus a soft tissue infection.

Coverage Topic

Diagnostic Tests and X-Rays

CPT/HCPCS Codes

78300 Bone and/or joint imaging; limited area

78305 multiple areas

78306 whole body

78315 three phase study

78320 tomographic (SPECT)

ICD-9 Codes that Support Medical Necessity

N/A

Diagnoses that Support Medical Necessity

N/A

ICD-9 Codes that DO NOT Support Medical Necessity

N/A

Diagnoses that DO NOT Support Medical Necessity

N/A

Documentation Requirements

Medical record documentation must clearly indicate the medical necessity of the service being billed. In addition, the documentation must support that the service was performed. This information is normally found in the office/progress notes, hospital records, and test results.

If the provider of the service is other than the ordering/referring provider, the provider of the service must maintain documentation of the test results and interpretation, along with copies of the ordering/referring provider's order for the studies. The ordering/referring provider must state the reason for the study in the order for the test.

Utilization Guidelines

It is expected that these services would be performed as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters, they may be subject to review for medical necessity.

Sources of Information and Basis for Decision

Greenspan, A., & Tehranzadeh, J. (2001). Imaging of musculoskeletal and spinal infections: Imaging of infectious arthritis. *Radiologic Clinics of North America*, 39(2). Retrieved October 14, 2002 from MD Consult database on the World Wide Web: <http://home.mdconsult.com>. Used to support the use of bone scans for musculoskeletal infections.

Michota, F. A. (2001). *Diagnostic Procedures Handbook* (2nd ed.). Cleveland, OH: Lexi-Comp Inc. Used to support the indications for coverage.

Noble, J. (2001). *Textbook of primary care medicine* (3rd ed.). St Louis: Mosby, Inc. Supported the use of a triple-phase bone scan for reflex sympathetic dystrophy.

Society of Nuclear Medicine (2003). *Procedure Guideline for Bone Scintigraphy*. Retrieved from <http://interactive.snm.org/index.cfm> on August 26, 2005.

The American College of Radiology (2002). *ACR standard for the performance of adult and pediatric skeletal scintigraphy*. Retrieved from http://www.acr.org/s_acr/sec.asp on August 26, 2005.

Thrall, J. H., & Ziessman, H. A. (2001). *Nuclear medicine: The requisites* (2nd ed.). St Louis: Mosby. Supported the indications identified in the policy.

Advisory Committee Notes

This policy does not reflect the sole opinion of the contractor or Contractor Medical Director. Although the final decision rests with the contractor, this policy was developed in cooperation with advisory groups, which includes representatives from numerous societies.

Carrier Advisory Committee Meeting held on 12/07/2002.

Start Date of Comment Period

N/A

End Date of Comment Period

N/A

Start Date of Notice Period

N/A

Revision History

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Start Date of Notice Period:	N/A	
Revised Effective Date:	09/13/2005	

Explanation of Revision: Policy converted into LCD format. References were updated with current medical literature.

Revision Number	Original	PCR B2003-126
Start Date of Comment Period:	11/29/2002	
Start Date of Notice Period:	05/01/2003	3 rd Quarter 2003 Update
Original Effective Date	06/30/2003	

Related Documents

N/A

LCD Attachments

N/A

Document formatted: 08/30/2005 (SH/st)