

# **LCD for Bisphosphonate Drug Therapy (L30139)**

## **Contractor Information**

### **Contractor Name**

Wisconsin Physicians Service Insurance Corporation

### **Contractor Number**

00951, 00952, 00953, 00954, 52280, 05101, 05201, 05301, 05401, 05102, 05202, 05302, 05402

### **Contractor Type**

Carrier - FI - MAC

## **LCD Information**

### **LCD ID Number**

L30139

### **LCD Title**

Bisphosphonate Drug Therapy

### **Contractor's Determination Number**

INJ-025

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### **CMS National Coverage Policy**

Title XVIII of the Social Security Act section 1862 (a)(1)(A). This section allows coverage and payment of those services that are considered to be medically reasonable and necessary.

Title XVIII of the Social Security Act section 1862 (a)(7). This section excludes routine physical examinations and services

Title XVIII of the Social Security Act section 1833 (e). This section prohibits Medicare payment for any claim which lacks the necessary information to process the claim.

Medicare Benefit Policy Manual - Chapter 15 – Covered Medical and Other Health Services  
54.1 - Approved Use of Drug - (Rev. 1, 10-01-03) (formerly B3-2049.4)

OTN Pub. 100-04; Change Request: 5645; SUBJECT: July, 2007 Quarterly Update to the HCPCS Codes for Albuterol, Levalbuterol, and Reclast®; Effective Date: July 1, 2007; Implementation Date: July 2, 2007

**Oversight Region**

Region V

**Original Determination Effective Date**

For services performed on or after 10/16/2009

**Original Determination Ending Date****Revision Effective Date**

For services performed on or after 10/16/2009

**Revision Ending Date****Indications and Limitations of Coverage and/or Medical Necessity**

Bisphosphonate drugs act to inhibit normal and abnormal bone reabsorption. This action is helpful in reducing pain, reversing hypercalcemia, preventing and reducing fractures in a range of diseases that directly or indirectly impact bone modeling and remodeling.

These drugs are available in both oral and parenteral forms. Coverage by Medicare is limited to those drugs administered parenterally (IV). The names of these drugs and their route of administration are as follows:

Alendronate sodium (Fosamax) oral  
Tiludronate sodium (Skelid) oral  
Risedronate sodium (Actonel) oral  
Etidronate disodium (Didronel) oral and IV (J1436)  
Pamidronate disodium (Aredia) IV (J2430)  
Zoledronic acid [Zoledronate], ((Zometa) IV (J3487)  
Zoledronic acid, (Reclast) IV J3488  
Ibandronate (Boniva) oral and IV (J1740)

Intravenous administration of bisphosphonate drug therapy is covered for FDA approved indications and for off-label indications when peer reviewed literature is available that supports additional coverage.

A. Etidronate disodium (Didronel) IV (J1436), Pamidronate disodium (Aredia) IV (J2430) and Zoledronic acid (Zoledronate) (Zometa) IV (J3487), are covered for the following indications:

1. Hypercalcemia associated with malignancy (275.42).

Osteoclastic hyperactivity resulting in excessive bone resorption is the underlying complication with metastatic bone disease and hypercalcemia associated with malignancy. Most cases of hypercalcemia, associated with malignancy, occurs in patients who have breast cancer, squamous-cell tumors of the lung or head and neck, renal-cell carcinoma, and certain hematologic malignancies (multiple myeloma and some types of lymphomas). Bisphosphonates, in conjunction with hydration, are indicated for moderate or severe hypercalcemia associated with malignancy with or without bone metastases.

## 2. Cancer treatment induced bone loss (733.09)

All oncology therapies that induce hypogonadism cause osteoporosis in a large percentage of patients unless hormone replacement is carried out immediately. Hypogonadism may occur in hormone-dependent tumors such as breast and prostate cancer; or it can be a consequence of cancer therapy in non hormone-dependant malignancies such as Hodgkin's and non-Hodgkin's lymphoma.

### Cancer Treatment-Induced Bone Loss (CTIBL) in Breast and Prostate Cancer

#### Breast Cancer

Cytotoxic chemotherapy: There are 2 mechanisms of cytotoxic chemotherapy inducing bone loss. First, there is a direct negative effect of the cytotoxic therapy on bone cells, predominantly osteoblasts and, second, many women who are premenopausal have cytotoxic therapy effects on ovarian function, which results in gonadal loss. In addition, in premenopausal women, surgery (oophorectomy) or radiation therapy to the ovary results in bone loss. Hormone therapy, tamoxifen in premenopausal women, and the aromatase inhibitors result in bone loss, as well as gonadotropin-releasing hormone (GnRH) antagonists/agonists, which shut off ovarian function. All of these result in estrogen depletion.

#### Prostate Cancer

In prostate cancer, cytotoxic therapy again has a negative effect not only on testicular function but also on bone. Surgical therapy, hormone therapy, including antiandrogens and GnRH agonists/antagonists, results in androgen depletion. The final common pathway, estrogen and androgen depletion, results in a decrease in bone mineral density.

## 3. Bone metastases (198.5) secondary to solid tumors, breast cancer, prostate cancer

## 4. Multiple Myeloma (203.00, 203.01, 203.02)

## 5. Osteolytic lesions due to metastases (198.5)

## 6. Paget's Disease of bone (osteitis deformans) (731.0)

Intravenous bisphosphonates are indicated for moderate to severe Paget's disease of bone.

## 7. Prophylaxis and treatment of heterotopic ossification associated with spinal cord injury, traumatic brain injury, hip replacement, and burns. (728.10-728.12, 958.6)

- Etidronate disodium for this indication is usually given orally. It is indicated parenterally when the patient has failed a trial of the oral drug or has insurmountable issues related to absorption, compliance or dosing posture.

B. In addition to the above, Pamidronate Sodium (J2430) is covered for:

### 1. Osteogenesis Imperfecta (756.51)

### 2. Fibrous dysplasia of bone (756.54) (McCune-Albright syndrome) (756.59)

C. Ibandronate [Boniva] (effective with FDA approval 01/06/2006); Pamidronate: or Zoledronic acid (05/01/2006, off-label) Reclast® (August 17, 2007 – FDA approval) are covered for:

1. Treatment of osteoporosis (733.00 -733.09) when;

Bisphosphonates remain the most appropriate anti-osteoporosis intervention, and there is no class contraindication or hypersensitivity to bisphosphonates, and there exists either:

- Demonstrated intolerance or contraindication for FDA approved oral bisphosphonates and oral dosing regimens, or insurmountable issues related to absorption, compliance or dosing posture, or
- When adequate trials of FDA-approved oral bisphosphonates result in fallen BMD and/or failure to suppress bone turnover (e.g. persisting high bone -turnover marker measurements.)

The World Health Organization (WHO) defines osteoporosis as spine, hip, or wrist bone mineral density (BMD) T-score <-2.5 or prevalent fragility fracture; and severe osteoporosis as T-score <-2.5 and prevalent fragility fracture

Evidence in the medical record should clearly support the need for the intravenous administration of bisphosphonates for the treatment of osteoporosis.

The recommended dose of Boniva Injection for the treatment of postmenopausal osteoporosis is 3 mg every 3 months.

The recommended dose of Reclast® for treatment of postmenopausal osteoporosis is a single 5 mg infusion once a year given intravenously over no less than 15 minutes. (5 mg in a 100 mL ready to infuse solution)

D. Ibandronate [Boniva] Effective 10/16/2009

1. Hypercalcemia associated with malignancy (275.42).
2. Bone metastases (198.5) secondary to solid tumors, breast cancer, prostate cancer

E. Zoledronic acid, Reclast® - Injection is indicated for the treatment of:

1. Paget's disease of bone in men and women effective with FDA approval April 16, 2007.

Treatment is indicated in patients with Paget's disease of bone with elevations in serum alkaline phosphatase of two times or higher than the upper limit of the age-specific normal reference range, or those who are symptomatic, or those at risk for complications from their disease, to induce remission (normalization of serum alkaline phosphatase).

A single dose of Reclast® (zoledronic acid) Injection should not exceed 5 mg and the duration of infusion should be no less than 15 minutes.

WPS Medicare will cover Reclast at most once per year because after a single treatment with Reclast in Paget's disease an extended remission period is observed. Re-treatment with Reclast may be considered, after one year in patients who have relapsed, based on increases in serum alkaline phosphatase, or in those patients who failed to achieve normalization of their serum alkaline phosphatase, or in those patients with symptoms, as dictated by medical practice.

2. Osteoporosis Effective Aug. 17, 2007 – see Section C above.

Precautions

Hypocalcemia may occur with Reclast therapy. To reduce the risk of hypocalcemia, all patients should receive 1500 mg elemental calcium daily in divided doses (750 mg two times a day, or 500 mg three times a day) and 800 IU vitamin D daily, particularly in the 2 weeks following Reclast administration.

Reclast may cause fetal harm when administered to a pregnant woman. Reclast should not be used during pregnancy.

Reclast is not recommended for use in patients with severe renal impairment (creatinine clearance <35mL/min) due to lack of adequate clinical experience in this population. Reclast has been associated with heart arrhythmia problems in the form of atrial fibrillation.

E. Bisphosphonates can impact renal function. Monitoring of renal function before during and post treatment according to labeled recommendations would be expected.

F. Monitoring with appropriate laboratory tests such as calcium, magnesium, and phosphate may be recommended.

G. The Food and Drug Administration has notified the public to the problem of osteonecrosis (also described as avascular or aseptic necrosis) of the mandible and/or maxilla, occurring in association with intravenously administered bisphosphonates.

H. A Severe anterior uveitis has been reported with use of bisphosphonate therapy.

### Coding Information

#### Bill Type Codes:

**Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.**

12x	Hospital-inpatient or home health visits (Part B only)
13x	Hospital-outpatient (HHA-A also) (under OPPS 13X must be used for ASC claims submitted for OPPS payment -- eff. 7/00)
21x	SNF-inpatient, Part A
22x	SNF-inpatient or home health visits (Part B only)
23x	SNF-outpatient (HHA-A also)
71x	Clinic-rural health
72x	Clinic-hospital based or independent renal dialysis facility
73x	Clinic-independent provider based FQHC (eff 10/91)
77x	Clinic-reserved for national assignment
85x	Special facility or ASC surgery-rural primary care hospital (eff 10/94)

#### Revenue Codes:

**Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.**

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

Revenue codes only apply to providers who bill these services to the fiscal intermediary. Revenue codes do not apply to physicians, other professionals and suppliers who bill these services to the carrier.

0636 Drugs requiring specific identification-detailed coding (eff 3/92)

### CPT/HCPCS Codes

CPT/HCPCS Codes

Note: ICD-9 codes must be coded to the highest level of specificity

J1436	INJECTION, ETIDRONATE DISODIUM, PER 300 MG
J1740	INJECTION, IBANDRONATE SODIUM, 1 MG
J2430	INJECTION, PAMIDRONATE DISODIUM, PER 30 MG
J3487	INJECTION, ZOLEDRONIC ACID (ZOMETA), 1 MG
J3488	INJECTION, ZOLEDRONIC ACID (RECLAST), 1 MG

### ICD-9 Codes that Support Medical Necessity

J1436 Etidronate

Note: ICD-9 codes must be coded to the highest level of specificity.

198.5	SECONDARY MALIGNANT NEOPLASM OF BONE AND BONE MARROW
203.00	MULTIPLE MYELOMA, WITHOUT MENTION OF HAVING ACHIEVED REMISSION
203.01	MULTIPLE MYELOMA IN REMISSION
203.02	MULTIPLE MYELOMA, IN RELAPSE
275.42	HYPERCALCEMIA
728.10 - 728.12	CALCIFICATION AND OSSIFICATION UNSPECIFIED - TRAUMATIC MYOSITIS OSSIFICANS
731.0	OSTEITIS DEFORMANS WITHOUT BONE TUMOR
958.6	VOLKMANN'S ISCHEMIC CONTRACTURE

J3487 Zoledronic acid (Zoledronate) (Zometa)

Note: ICD-9 codes must be coded to the highest level of specificity.

198.5

SECONDARY MALIGNANT NEOPLASM OF  
BONE AND BONE MARROW

203.00	MULTIPLE MYELOMA, WITHOUT MENTION OF HAVING ACHIEVED REMISSION
203.01	MULTIPLE MYELOMA IN REMISSION
203.02	MULTIPLE MYELOMA, IN RELAPSE
275.42	HYPERCALCEMIA
728.10 - 728.12	CALCIFICATION AND OSSIFICATION UNSPECIFIED - TRAUMATIC MYOSITIS OSSIFICANS
731.0	OSTEITIS DEFORMANS WITHOUT BONE TUMOR
733.00 - 733.09	OSTEOPOROSIS UNSPECIFIED - OTHER OSTEOPOROSIS
958.6	VOLKMANN'S ISCHEMIC CONTRACTURE

J3488 Zoledronic acid (Reclast)

Note: ICD-9 codes must be coded to the highest level of specificity.

731.0	OSTEITIS DEFORMANS WITHOUT BONE TUMOR
733.00 - 733.09	OSTEOPOROSIS UNSPECIFIED - OTHER OSTEOPOROSIS

J2430 Pamidronate only

Note: ICD-9 codes must be coded to the highest level of specificity.

198.5	SECONDARY MALIGNANT NEOPLASM OF BONE AND BONE MARROW
203.00	MULTIPLE MYELOMA, WITHOUT MENTION OF HAVING ACHIEVED REMISSION
203.01	MULTIPLE MYELOMA IN REMISSION
203.02	MULTIPLE MYELOMA, IN RELAPSE
275.42	HYPERCALCEMIA
728.10 - 728.12	CALCIFICATION AND OSSIFICATION UNSPECIFIED - TRAUMATIC MYOSITIS OSSIFICANS
731.0	OSTEITIS DEFORMANS WITHOUT BONE TUMOR
733.00 - 733.09	OSTEOPOROSIS UNSPECIFIED - OTHER OSTEOPOROSIS
756.51	OSTEOGENESIS IMPERFECTA
756.54	POLYOSTOTIC FIBROUS DYSPLASIA OF BONE
756.59	OTHER CONGENITAL OSTEODYSTROPHIES
958.6	VOLKMANN'S ISCHEMIC CONTRACTURE

J1740 Ibandronate (Boniva)

Note: ICD-9 codes must be coded to the highest level of specificity.

198.5	SECONDARY MALIGNANT NEOPLASM OF BONE AND BONE MARROW
275.42	HYPERCALCEMIA
733.00 - 733.09	OSTEOPOROSIS UNSPECIFIED - OTHER OSTEOPOROSIS

### **Diagnoses that Support Medical Necessity**

### **ICD-9 Codes that DO NOT Support Medical Necessity**

### **ICD-9 Codes that DO NOT Support Medical Necessity Asterisk Explanation**

### **Diagnoses that DO NOT Support Medical Necessity**

## **General Information**

### **Documentation Requirements**

1. If bone metastases is the condition being treated, the claim must be submitted with the ICD-9 code that reflects the reason for the service (198.5). The diagnosis of a primary malignant neoplasm must be present in the patient's progress notes, and available if requested.

\*2. Intravenous administration by infusion should be billed with codes 96365 for first hour and code 96366 for each additional hour. If the administration is by IV push use code 96374.

Information in the medical record should support the medical necessity of this service based on the indications listed and be available on request. ICD-9 codes supporting medical necessity should be submitted on the claim.

### **Appendices**

### **Utilization Guidelines**

Utilization Guidelines  
See Indications and Limitations

This policy does not reflect the sole opinion of the contractor or Contractor Medical Director. Although the final decision rests with the MAC contractor this policy was developed in cooperation with advisory groups which include representatives from various specialties, and adapted for the purpose of converting to MAC jurisdiction.

## **Sources of Information and Basis for Decision**

Sources of Information and Basis for Decision

Drug Facts and Comparisons, 2001 Edition

Liens, Daniel et. al.; Long-term Effects of Intravenous Pamidronate in Fibrous Dysplasia of Bone; *Lancet*; Vol. 343, 04/16/94

Rosen, Les S., et al.; Zoledronic Acid Versus Pamidronate in the Treatment of Skeletal Metastases in Patients With Breast Cancer or Osteolytic Lesions of Multiple Myeloma: A Phase III, Double Blind Comparative Trial; *The Cancer Journal*: Vol. 7, NO. 5, Sept/Oct/2001.

Berenson, James R. et. al.; Zoledronic Acid Reduces Skeletal-Related Events in Patients with Osteolytic Metastases; *CANCER*: Vol. 17, NO 1; 03/2000.

Osteoporosis Prevention Diagnosis and Therapy; NIH Consensus Statement Vol. 17, NO 1, 03/2000

Glorieux, F.H., et al. Cyclic administration of pamidronate in children with severe osteogenesis imperfecta. *New England Journal of Medicine* 1998 Oct. 1; 339(14): 947-952.

Recommendations for the Prevention and Treatment of Glucocorticoid-induced Osteoporosis; *Arthritis and Rheumatism*, Vol. 44, NO 7, 07/2001, pg. 1496-1503

AACE 2001 Medical Guidelines For Clinical Practice For the Prevention and Management of Postmenopausal Osteoporosis; *Endocrine Practice*, Vol. 7, NO. 4 July/August 2001

Banovac, K., The effect of etidronate on the late development of heterotopic ossification after spinal cord injury, *J. Spinal Cord Med.*, 200 Spring; 23(1): 40-4.

Campagnolo, Denise I., et.al.; Heterotopic Ossification in Spinal Cord Injury; *eMedicine Journal*, June 22,2001, Volume 2, No. 6.

Russell, R. G.G., and Rogers, M.J.; Bisphosphonates: from the laboratory to the clinic and back again; *Bone*; Vol.25, Issue 1, 07/1999

Smith, Matthew R., et. al.; Randomized Controlled Trial of Zoledronic Acid to Prevent Bone Loss in Men Receiving Androgen Deprivation Therapy for Nonmetastatic Prostate Cancer; *Journal of Urology*, Vol. 169, No 6, June, 2003

Hilner, Bruce E., et. al.; American Society of Clinical Oncology 2003 Update On The Role of Bisphosphonates and Bone Health Issues in Women with Breast Cancer; *Journal of Clinical Oncology*, Vol. 21, Nov., 2003

Pfeilschifter, Johannes and Deil, Ingo J.; Osteoporosis Due to Cancer Treatment: Pathogenesis and Management; *Journal of Clinical Oncology*, Vol. 18, No 7, April, 2000

Reid Ian R., M.D; et.al.; Intravenous Zoledronic Acid in Postmenopausal Women with Low Bone Mineral Density; Volume 346:653-661; February 28, 2002; Number 9

Black, Dennis M., Delmas Pierre D., et al; Once-Yearly Zoledronic Acid for Treatment of postmenopausal Osteoporosis; *NEJM*, 05/03/07; Vol. 356 No. 18

FDA approval Letter dated 04/16/2007 for coverage of Reclast® (zoledronic acid) for Pagets disease of the bone.

FDA approval Letter dated 08/17/2007 for coverage of Reclast® (zoledronic acid) for post-menopausal osteoporosis.

Pecherstorfer M, Herrmann Z, Body JJ, et al. Randomized phase II trial comparing different doses of the bisphosphonate ibandronate in the treatment of hypercalcemia of malignancy. *J Clin Oncol*. 1996;14(1):268-276.

Pecherstorfer, M, Rivkin S, Body JJ, et al. Long-term safety of intravenous ibandronic acid for up to 4 years in metastatic breast cancer: An open-label trial. *Clin Drug Investig*. 2006;26(6):315-322.

Guay DR. Ibandronate, an experimental intravenous bisphosphonate for osteoporosis, bone metastases, and hypercalcemia of malignancy. *Pharmacotherapy*. 2006;26(5):655-673.

Diel IJ, Body JJ, Lichinitser, MR, et al.; MF 4265 Study Group. Improved quality of life after long-term treatment with the bisphosphonate ibandronate in patients with metastatic bone disease due to breast cancer. *Eur J Cancer*. 2004;40(11):1704-1712.

Body JJ, Diel IJ, Lichinitser, MR, et al.; MF 4265 Study Group. Intravenous ibandronate reduces the incidence of skeletal complications in patients with breast cancer and bone metastases. Ann Oncol. 2003;14(9):1399-1405.

Pecherstorfer, M, Steinhauer EU, Rizzoli R, et al. Efficacy and safety of ibandronate in the treatment of hypercalcemia of malignancy: A randomized multicentric comparison to pamidronate. Support Care Cancer. 2003;11(8):539-547.

### **Advisory Committee Meeting Notes**

Meeting Date:

Wisconsin 05/15/2009

Illinois 05/13/2009

Michigan 05/06/2009

Minnesota 05/21/2009

J5 MAC 06/04/2009

### **Start Date of Comment Period**

06/04/2009

### **End Date of Comment Period**

07/20/2009

### **Start Date of Notice Period**

02/01/2010

### **Revision History Number**

1

### **Revision History Explanation**

02/01/2010, ICD-9 codes 728.10-728.12 and 958.6 were added to the list of payable codes for J2430 and J3487. This is a correction of a typo.;

11/01/2009, Corrected ICD-9 coding 203.02. Added instructions for iv administration. Remove revenue codes 0634 and 0635.

09/08/2009 Updated intravenous admin text (first paragraph) under Indications and Limitations. Updated ICD-9 code under J1740.

08/14/2009 Revised draft and Released to final effective date will be 10/16/2009

06/29/2009 removed contractor number 05392 for EMO because it is joining with WMO to be under one contractor number effective 8/1/09

04/03/2009 Approved

04/02/2009 Added as new draft LCD AB

**Reason for Change****Last Reviewed On Date**

01/14/2010

**Related Documents**

This LCD has no Related Documents.

**LCD Attachments****All Versions**

Updated on 01/20/2010 with effective dates 10/16/2009 - N/A

Updated on 10/15/2009 with effective dates 10/16/2009 - N/A

Updated on 09/08/2009 with effective dates 10/16/2009 - N/A

Updated on 08/13/2009 with effective dates 10/16/2009 - N/A