POLICY STATEMENT:

I. Based upon our criteria and assessment of the peer-reviewed literature, chelation therapy has been proven to be effective and therefore medically appropriate for the following conditions:
   A. Extreme conditions of metal toxicity, including: arsenic, cadmium, copper, gold, iron, lead, and mercury;
   B. Thalassemia intermedia with hemosiderosis;
   C. Thalassemia major (Cooley’s anemia);
   D. Iron overload due to chronic transfusions in sickle cell anemia;
   E. Patients receiving chronic transfusions (e.g. myelodysplasia, aplastic anemia);
   F. Wilson’s disease (hepatolenticular degeneration); and
   G. As a cardioprotectant in women with metastatic breast cancer who have received a cumulative doxorubicin dose of at least 300 mg/m².

II. Based upon our criteria and assessment of the peer-reviewed literature, chelation therapy does not improve patient outcomes and is considered not medically necessary in the treatment of coronary artery disease, including atherosclerosis, arteriosclerosis and hypercholesterolemia.

III. Based on assessment of peer-reviewed literature, chelation therapy as a method of treatment for digitalis toxicity and hypercalcemia is no longer considered medically necessary. This treatment regimen has fallen out of favor with the advent of newer drug therapies; such as Digibind (digitalis toxicity) and bisphosphonates (hypercalcemia).

IV. Based upon our criteria and assessment of the peer-reviewed literature, chelation therapy has not been medically proven to be effective and is considered investigational in the treatment of, but not limited to, each of the following indications:
   A. Alzheimer’s disease;
   B. Autism;
   C. Cystinuria;
   D. Environmental allergies;
   E. Multiple Sclerosis; and
   F. Arthritis/arthralgia.

V. Based upon our criteria, assessment of the peer-reviewed literature, and lack of FDA approval, the oral chelating agent deferiprone in the treatment of thalassemia has not been medically proven to be effective and is considered investigational.

Refer to Corporate Medical Policy # 2.01.04 regarding Clinical Ecology/ Environmental Allergies.

Refer to Corporate Medical Policy # 11.01.03 regarding Experimental and Investigational Services.

Refer requests for Exjade (deferasirox) or other oral chelators to the pharmacy department (FLRx).
POLICY GUIDELINES:

I. The position statement of the American College of Medical Toxicology states that post-chelator challenge urinary metal testing has not been scientifically validated, has no demonstrated benefit, and may be harmful when applied in the assessment and treatment of patients in whom there is a concern for metal poisoning. Therefore, the use of post-chelator challenge/post-provocation urinary metal testing to diagnose toxic metal conditions is considered not medically appropriate.

II. The Federal Employee Health Benefit Program (FEHBP/FEP) requires that procedures, devices or laboratory tests approved by the U.S. Food and Drug Administration (FDA) may not be considered investigational and thus these procedures, devices or laboratory tests may be assessed only on the basis of their medical necessity.

DESCRIPTION:

Chelation therapy consists of the intravenous or oral administration of chelating agents, which remove toxic metal ions from the body. These heavy metal antagonists form complexes with heavy metals rendering them physiologically inactive and enhancing their excretion in the urine. Chemical endarterectomy, a form of chelation therapy, is utilized for the removal of plaque or calcium. Chelating agents include, but are not limited to: EDTA, Disodium Edetate (Endrate), deferoxamine (DFO, Desferal), dimercaprol (BAL in oil), penicillamine (Cuprimine, Depen), edetate calcium disodium, dexazoxane (Zinecard®), deferasirox (Exjade), trientene HCL (Syprine®), and succimer (Chemet®).

RATIONALE:

Chelating agents such as Endrate, EDTA, Desferal, Cuprimine, deferasirox, and succimer have been approved for use by the U.S. Food and Drug Administration (FDA). The oral chelating agent deferiprone (Ferripro®) has not been approved by the FDA, due to the absence of a successful phase III trial (non-inferiority to DFO). Access to deferiprone in the United States may be sought via a Treatment Investigational New Drug (IND) Application with the FDA. Dexrazoxane, the only chelator approved by the FDA (2000) for the treatment of a non-overload condition, is approved for marketing to reduce the incidence and severity of cardiomyopathy associated with doxorubicin administration in women with metastatic breast cancer.

Chelation therapy is an established treatment method for metal toxicity and overload conditions due to diseases such as Cooley’s anemia, Sickle Cell Anemia and Wilson’s disease. Studies investigating chelation therapy for coronary artery disease and atherosclerosis showed no significant differences in the outcomes of disease severity and subjective improvements. Therefore, there is insufficient scientific evidence to determine the effectiveness of chelation therapy in improving clinical outcomes of patients with atherosclerosis. Clinical trials have demonstrated that the use of dexrazoxane was associated with a decreased risk of clinical cardiotoxicity in women with breast cancer (e.g., cardiac events occurred in 31% of patients receiving placebo and only in 14% of patients receiving dexrazoxane). Published trials investigating chelation therapy for other diseases such as Alzheimer’s disease, arthritis, MS and autism have not provided evidence to support its use for these conditions.

CODES:

<table>
<thead>
<tr>
<th>Code Key</th>
<th>Number</th>
<th>Description</th>
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Eligibility for reimbursement is based upon the benefits set forth in the member’s subscriber contract.

CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.

Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.

Code Key: Experimental/Investigational = (E/I), Not medically necessary/appropriate = (NMN).

CPT: No specific codes

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HCPCS:  
M0300 (E/I)  I.V. Chelation therapy (chemical endarterectomy)
J0470  Injection, dimercaprol
J0600  Injection, edetate calcium disodium, up to 1,000 mg
J0895  Injection, deferoxamine mesylate, 500 mg
J1190  Injection, dextraoxane HCl, per 250 mg (Zinecard)
J3520  Edetate disodium (EDTA, Disotate) per 150 mg
S9355  Home infusion therapy, chelation therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment, per diem

Medically appropriate codes

ICD 9:  
275.1  Wilson’s disease; Disorders of copper metabolism
282.4- 282.49  Thalassemia (code range)
282.6-282.69  Sickle cell disease (code range)
284.0-284.9  Aplastic anemia (code range)
742.59  Myelodysplasia
984- 984.9  Toxic effect of lead (code range)
985.0  Toxic effect of other metals, mercury and its compounds
985.1  Toxic effect of other metals, arsenic and its compounds
985.5  Toxic effect of other metals, cadmium and its compounds
985.8  Toxic effect of other metals, other specified metals (includes copper salts and iron compounds)
985.9  Toxic effect of other metals, unspecified metal

ICD10:  
E83.00-E83.09  Disorders of copper metabolism, code range
E56.0-D56.9  Thalassemia, code range
D57.00-D57.419  Sickle cell disorders, code range
D57.80-D57.819  Other sickle cell disorders, code range
D60.0-D60.9  Pure red cell aplasia, code range
D61.01-D61.9  Aplastic anemia and other bone marrow failure syndromes
C94.6, D46.9-D46.Z  Myelodysplasia, code range
T56.0x1A-T56.0x4A  Toxic effect of lead and its compounds, code range
T56.1x1A-T56.1x4A  Toxic effect of mercury and its compounds, code range
T56.3x1A-T56.3x4A  Toxic effect of cadmium and its compounds, code range
T56.4x1A-T56.4x4A  Toxic effect of copper and its compounds, code range
REFERENCES:


*Ballas SK. Iron overload is a determinant of morbidity and mortality in adult patients with sickle cell disease. Semin Hematol 2001 Jan;38(1 Suppl 1):30-6.


*Key articles

**KEY WORDS:**
Chelation therapy, Post-chelator challenge urinary metal testing, Post-provocation urinary metal testing.

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**CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS**

There is currently a National Coverage Determination (NCD) for chelation therapy for treatment of atherosclerosis. Please refer to the following NCD website for Medicare Members: