Cuprimine® (penicillamine) and Syprine® (trientine) Used in the Treatment of Wilson's Disease, Cystinuria, and Severe, Active Rheumatoid Arthritis

Approved July 2019

Cuprimine® (penicillamine)
Syprine® (trientine hydrochloride)

Background:

Wilson disease is a rare autosomal recessive inherited disorder of copper metabolism that is characterized by excessive deposition of copper in the liver, brain, and other tissues. The mainstay of therapy for Wilson disease is pharmacologic treatment with chelating agents such as
D-penicillamine and trientine.

Cystinuria is an inherited autosomal recessive disease that is characterized by high concentrations of the amino acid cysteine in the urine, leading to the formation of cystine stones
in the kidneys, ureter, and bladder. The foundation of cystine stone prevention is adequate hydration and urinary alkalinization. When this conservative therapy fails, thiol drugs, such as
D-penicillamine are added to the regimen.

Rheumatoid arthritis (RA) is the most common type of autoimmune arthritis. D-penicillamine appears to have a clinical and statistical benefit on the disease activity of patients with rheumatoid arthritis.

Criteria for approval:

Cuprimine

Patient has a documented diagnosis of one of the following:

A. Wilson's disease AND treatment with Depen® (penicillamine titratable) was ineffective, not tolerated, or is contraindicated OR

B. Cystinuria AND

1) Treatment with conservative measures (for example, high fluid intake, sodium and
protein restriction, urinary alkalinization) was ineffective, not tolerated, or is contraindicated AND

2) Treatment with Depen® was ineffective, not tolerated, or is contraindicated

OR

C. Severe, active Rheumatoid arthritis meeting all the following:

a. Treatment with one month trial of each of the following was ineffective, not
b. tolerated, or is contraindicated: methotrexate, hydroxychloroquine, leflunomide,
c. and sulfasalazine; AND

d. The patient is not pregnant; AND
e. The patient does not have a history or other evidence of renal insufficiency

Syprine

A. Patient has a documented diagnosis of Wilson's disease AND
B. Treatment with Depen® was ineffective, not tolerated, or contraindicated

Black Box Warning: Physicians planning to use penicillamine should thoroughly familiarize themselves with its toxicity, special dosage considerations, and therapeutic benefits. Penicillamine should never be used casually. Each patient should remain constantly under the close supervision of the physician. Patients should be warned to report promptly any symptoms suggesting toxicity

Approval Duration: 6 months

References:

1. Cuprimine [prescribing information]. Bridgewater, NJ: Aton Pharma. Inc. November 2015
2. Syprine [prescribing information]. Bridgewater, NJ: Valeant Pharmaceuticals North America LLC; June 2014
3. Clinical Pharmacology® Gold Standard Series [Internet database]. Tampa FL. Elsevier 2018. Updated periodically
4. Suarez-Almazor ME, Spooner C, Belseck E. Penicillamine for treating rheumatoid arthritis. Cochrane Database Syst.
5. Rev. 2000;(4):CD001460. Accessed online 5.18.19
6. Singh JA, et al. 2015 American College of Rheumatology Guideline for the Treatment of Rheumatoid Arthritis. Arthritis Rheumatol. 2016 Jan;68(1):1-26.