Antihyperuricemic Agents

WA.PHAR.40 Antihyperuricemic Agents

Background:

Gout is a crystalline arthropathy predominantly observed in patients 30 to 50 years old, and the condition is much more common in men than in women. Gout is a condition caused by the over-production or under-excretion of uric acid, resulting in the deposition of monosodium urate crystals in the joints or soft tissue. The disease is often, but not always, associated with increased blood uric acid levels. Symptoms of gout include recurrent inflammatory arthritis that can lead to permanent joint destruction; the development of tophi which can be painful when inflamed and limit joint mobility, and uric acid urolithiasis**.** Individuals with asymptomatic hyperuricemia do not require specific treatment; however, attempts should be made to decrease their urate levels by encouraging them to make dietary and lifestyle modifications (e.g., a low carbohydrate, high protein and unsaturated fat diet). Acute gout most commonly affects the first metatarsal joint of the foot, but the small joints of the hands, wrists and elbows may also be involved.

Medical necessity

Drug	Medical Necessity
Febuxostat (Uloric®) Lesinurad (Zurampic®) Lesinurad/allopurinol (Duzallo®) Pegloticase (Krystexxa®)	Febuxostat, Lesinurad, Lesinurad/allopurinol, and Pegloticase may be considered medically necessary when used for the treatment of symptomatic hyperuricemia associated with gout

Clinical policy:

Drug	Clinical Criteria
Febuxostat (Uloric®) Lesinurad (Zurampic®) Lesinurad/allopurinol (Duzallo®)	Uloric, Zurampic and Duzallo may be covered when **ALL** of the following are met: 1. Diagnosis of symptomatic hyperuricemia associated with gout confirmed by **ONE** of the following: a. Measurement of blood uric acid levels b. Measurement of erythrocyte sedimentation rate c. Polarized light microscopy for identification of crystal in synovial fluids obtained from joints or bursas (as well as material aspirated from tophaceous deposits, if any) d. Magnetic resonance imaging for gouty tophus 2. Greater than or equal to (≥) 3 gout flares in the previous 18 months that were inadequately controlled by colchicine, corticosteroids, or non-steroidal anti-inflammatory drugs (NSAIDs), or at least 1 gout tophus or gouty arthritis

	3. History of failure (normalize serum uric acid to less than 6 mg/dL), contraindicated or intolerant to at least 3 months of allopurinol at maximum tolerated dose. 4. Medications known to precipitate gout attacks have been discontinued/changed when possible 5. For febuxostat (Uloric®) only a. NO history of cardiovascular disease (e.g. non-fatal myocardial infarctions (MI), and non-fatal strokes) b. ONE of the following: i. For symptomatic hyperuricemia associated with gout dose less than or equal to (≤) 80mg per day ii. For prophylaxis of increased uric acid level, in patients receiving chemotherapy and at intermediate to high risk of tumor lysis syndrome 1) Dose less than or equal to (≤) 120mg per day for 7 to 9 days, starting 2 days prior to chemotherapy (off-label) 2) Dose less than or equal to (≥) 60mg per day for 6 to 14 days, starting 24 hours prior to chemotherapy (off-label) 6. For Zurampic only a. Used in combination with xanthine oxidase inhibitor (e.g. allopurinol, Uloric) b. Less than or equal to (≤) 200mg per day 7. For Duzallo only a. No history of severe renal impairment (CrCl <30 mL/min) **Approve for 12 months**
	Criteria (Reauthorization)
	Confirmation of a positive clinical response **Approve for 12 months**
Pegloticase (KRYSTEXXA®)	Krystexxa may be covered when ALL of the following are met: 1. Diagnosis of symptomatic hyperuricemia associated with gout confirmed by **ONE** of the following: a. Measurement of blood uric acid levels b. Measurement of erythrocyte sedimentation rate c. Polarized light microscopy for identification of crystal in synovial fluids obtained from joints or bursas (as well as material aspirated from tophaceous deposits, if any) d. Magnetic resonance imaging for gouty tophus *2.* Greater than or equal to (≥) 3 gout flares in the previous 18 months that were inadequately controlled by colchicine, corticosteroids or non-steroidal anti-inflammatory drugs (NSAIDs), or the patient has at least 1 gout tophus or gouty arthritis

	3. History of failure (normalize serum uric acid to less than 6 mg/dL), contraindicated or intolerant to at least 3 months of xanthine oxidase inhibitor (e.g. allopurinol, Uloric) at maximum tolerated dose, AND Zurampic plus either allopurinol or Uloric; or Duzallo. 4. Medications known to precipitate gout attacks have been discontinued/changed when possible 5. NO history of G6PD deficiency. 6. 8mg IV every 2 weeks **Approve for 12 months**
	Criteria (Reauthorization)
	Confirmation of positive clinical response. **Approve for 12 months**

Dosage and quantity limits

Drug Name	Dose and Quantity Limits
Colchicine	2.4mg per day; #120 capsules per 30-day supply
Febuxostat (ULORIC®)	80mg per day; #30 tablets for 30-day supply
Lesinurad (ZURAMPIC®)	200mg per day; #30 tablets for 30-day supply
Pegloticase (KRYSTEXXA®)	8mg (1mL) infusion every 2 weeks; 26 infusions per year

Coding:

HCPCS Code	Description
J2507	Injection, Pegloticase, 1 mg

References

1. Uloric [package insert].Takeda Pharmaceuticals NA; Chicago, Illinois; 2009.
2. Matsuo H, Yamamoto K, Nakaoka H, et al. Genome-wide association study of clinically defined gout identifies multiple risk loci and its association with clinical subtypes. Ann Rheum Dis. 2016;75(4):652-659.
3. Dalbeth N, Stamp LK, Merriman TR. The genetics of gout: Towards personalised medicine? BMC Med. 2017;15(1):108.
4. Cleophas MC, Joosten LA, Stamp LK, et al. ABCG2 polymorphisms in gout: Insights into disease susceptibility and treatment approaches. Pharmgenomics Pers Med. 2017;10:129-142.
5. Becker MA. Clinical manifestations and diagnosis of gout. UpToDate [online serial] Waltham, MA: UpToDate; reviewed July 2017a.
6. Becker MA. Treatment of acute gout. UpToDate [online serial]. Waltham, MA: UpToDate; reviewed July 2017b.
7. Qaseem A, McLean RM, Starkey M, Forciea MA1; Clinical Guidelines Committee of the American College of Physicians. Diagnosis of acute gout: A clinical practice guideline From the American College of Physicians. Ann Intern Med. 2017a;166(1):52-57.
8. Qaseem A, Harris RP, Forciea MA; Clinical Guidelines Committee of the American College of Physicians. Management of acute and recurrent gout: A clinical practice guideline from the American College of Physicians. Ann Intern Med. 2017b;166(1):58-68.

9. Son CN, Song Y, Kim SH, et al. Digital tomosynthesis as a new diagnostic tool for assessing of chronic gout arthritic feet and ankles: comparison of plain radiography and computed tomography. Clin Rheumatol. 2017 Jun 8
10. Becker, M. Clinical manifestations and diagnosis of gout. In: UpToDate, Basow, DS (Ed). UpToDate, Waltham, MA, 2010.
11. Food and Drug Administration; Center for Drug Evaluation and Research; Medical Review for BLA 125293, Krystexxa (Pegloticase) August 20, 2010. [cited 01/25/2017]; Available from: <http://www.accessdata.fda.gov/drugsatfda_docs/nda/2010/125293s0000TOC.cfm>
12. Kyrstexxa [package insert]. Glendale, WI: Crealta Pharmaceuticals, Inc.; September 2016.
13. Sundy JS, Baraf HS, Yood RA, et. al. Efficacy and tolerability of pegloticase for the treatment of chronic gout in patients refractory to conventional treatment: two randomized controlled trials. JAMA. 2011 Aug 17;306(7):711-20. PubMed PMID: 21846852.
14. Khanna D, Fitzgerald JD, Khanna PP, et al.; American College of Rheumatology. 2012 American College of Rheumatology guidelines for management of gout. Part 1: systematic nonpharmacologic and pharmacologic therapeutic approaches to hyperuricemia. Arthritis Care Res (Hoboken). 2012 Oct;64(10):1431-46. doi: 10.1002/acr.21772. PubMed PMID: 23024028.
15. Spina M, Nagy Z, Ribera JM, et al: FLORENCE: a randomized, double-blind, phase III pivotal study of febuxostat versus allopurinol for the prevention of tumor lysis syndrome (TLS) in patients with hematologic malignancies at intermediate to high TLS risk. Ann Oncol 2015; 26(10):2155-2161.
16. Tamura K, Kawai Y, Kiguchi T, et al: Efficacy and safety of febuxostat for prevention of tumor lysis syndrome in patients with malignant tumors receiving chemotherapy: a phase III, randomized, multi-center trial comparing febuxostat and allopurinol. Int J Clin Oncol 2016; 21(5):996-1003.