# Luxturna® (voretigene neparvovec-rzyl)

Humana

## Pharmacy Coverage Policy

**Effective Date:** January 19, 2024
**Revision Date:** December 18, 2024
**Review Date:** December 11, 2024
**Line of Business:** Medicaid - Louisiana
**Policy Type:** Prior Authorization





| Products Affected |
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| Luxturna subretinal suspension |

| Listed Indications |
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| RPE65 mutation-associated retinal dystrophy |

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| **Does the member meet all of the following criteria?** | |
| Criteria #1 | Has clinical documentation confirming diagnosis of RPE65 mutation-associated retinal dystrophy (e.g. Leber congenital amaurosis Type 2 (LCA 2) or retinitis pigmentosa type 20) including clinical features, funduscopic appearance, and results of testing such as dark-adapted thresholds, Ganzfeld-flash ERG, and perimetry when appropriate |
| Criteria #2 | Must have a documented positive genetic test result confirming biallelic RPE65 mutation (homozygote or compound heterozygote). When results demonstrate two different mutations on the RPE65 gene, segregation analysis should be performed when possible* to confirm biallelic involvement (trans-configuration). Patients with two mutations involving only one copy of the RPE65 gene (cis-configuration) are excluded from coverage *Note: If the patient is adopted, or both parents are deceased, segregation analysis may not be possible. In these situations, the two identified RPE65 variants can be assumed to be in trans-configuration if an inherited retinal disease specialist confirms that the phenotype in the patient matches the gene's disease association with a high degree of specificity. |
| Criteria #3 | Must be between 12 months to 65 years of age |
| Criteria #4 | Must have sufficient viable retinal cells as determined by the treating physician(s) using one of the following criteria: An area of retina within the posterior pole of >100 um thickness shown on OCT; Greater than or equal to 3 disc areas of retina without atrophy or pigmentary degeneration within the posterior pole; Remaining visual field within 30 degrees of fixation as measured by a lll4e isopter or equivalent (both eyes) |
| **Does the member have any of the following exclusions? If yes, approval may not be appropriate.<br>NOTE: Experimental/Investigational Use – Indications not supported by CMS recognized compendia or acceptable peer reviewed literature.** | |
| Exclusion #1 | Must not have had previous sub-retinal administration of a gene therapy vector, or voretigene neparvovec-rzyl into the operative eye. |
| Exclusion #2 | Pre-existing eye conditions, intraocular surgery or complications that preclude the ability to administer and assess the efficacy of voretigene neparvovec-rzyl including but not limited to: Malignancies whose treatment could affect central nervous system function; Retinopathy associated with diabetic macular edema or sickle cell disease; Immunodeficiency (acquired or congenital) making the member susceptible to opportunistic infection |
| **Approval Duration** | |
| Initial | Luxturna (voretigene neparvovec-rzyl) will be approved in 6 month duration or as determined through clinical review. *Note for Commercial patients, Humana's preferred gene therapy centers are: Baylor College of Medicine - Houston, TX Bascom Palmer Eye Institute - Plantation, FL |
| Renewal | Luxturna (voretigene neparvovec-rzyl) will be approved in 6 month duration or as determined through clinical review. *Note for Commercial patients, Humana's preferred gene therapy centers are: Baylor College of Medicine - Houston, TX Bascom Palmer Eye Institute - Plantation, FL |

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## Background

This is a prior authorization policy about Luxturna (voretigene neparvovec-rzyl).

- Hereditary retinal dystrophies are a broad group of retinal disorders that are manifested by progressive visual dysfunction and are caused by mutations in any one of 220 different genes. Retinal dystrophy due to RPE65 mutations includes a group of sight-threatening diseases with various clinical presentations. The two most common are Leber congenital amaurosis (LCA) and retinitis pigmentosa (RP). LCA manifests in early life with severe vision impairment, where retinitis pigmentosa presents with a gradual course of night blindness and visual field loss. Biallelic mutations in the RPE65 gene account for approximately 16% of cases of LCA and 2% of cases of recessive RP. Currently there are no approved pharmacological treatments for patients with biallelic RPE65 mutation-associated retinal dystrophy.
- Due to the fact that the target retinal cells are post mitotic cells, Luxturna (voretigene neparvovec-rzyl) is a one-time administration and will provide benefit as long as the retina cells are viable. Luxturna (voretigene neparvovec-rzyl) treatment does not produce new tissue, so it is imperative that the patient have viable retinal cells prior to administration. One way this can be measured is by optical coherence testing (OCT) documenting a retinal layer greater than 100 µm thick.
- The minimum age to receive Luxturna (voretigene neparvovec-rzyl) is 12 months of age. In Study 101 (Phase I), the average age of the treatment population was 20, with 8 years old being the youngest, and 44 being the oldest. In Study 102 (Phase I), the average age was 22, with 11 being the youngest and 46 being the oldest. In Study 301 (Phase III), the median age was 15, with the youngest being 4 and the oldest being 44. The safety and effectiveness of Luxturna (voretigene neparvovec-rzyl) has not been established in patients age 65 and over.
- Patients should be able to take systemic oral corticosteroids equivalent to prednisone at 1 mg/kg/day starting 3 days before administration of Luxturna (voretigene neparvovec-rzyl). The pretreatment with oral corticosteroids were included in Study 301, and the purpose is to reduce the immune response to the AAV2 capsid and transgene product, RPE65.
- The patient should be able to perform the MLMT and achieve an accuracy score of less than or equal to 1 at 400 lux or less. The patient should not be able to pass MLMT at 1 lux at baseline which is considered normal vision. In Study 301, the change from baseline at Year 1 of the multi-luminance mobility test (MLMT) was the primary efficacy endpoint. 21 of the 29 patients that received Luxturna (voretigene neparvovec-rzyl) in Study 301 achieved significant improvement in their MLMT, showing benefit in functional vision at lower light levels.
- If a patient is not able to perform the MLMT, another measure of efficacy is a Full-field light sensitivity threshold (FST) testing. The FST measures light sensitivity of the entire retina by measuring the patient's perception of different levels of light. FST is not affected by nystagmus, which allows evaluating patients with either lesser degrees of impairment or profound visual disability. In the Phase I trial, a majority of the patients that received Luxturna (voretigene neparvovec-rzyl) showed improvement in FST. In the Phase III trial, patients that received Luxturna (voretigene neparvovec-rzyl) showed statistically significant improvement from baseline to year 1. FST improvement was observed at Day 30 and sustained for two years.
- Warnings and Precautions of Luxturna (voretigene neparvovec-rzyl)
  - Risk of endophthalmitis
  - Permanent decline in visual acuity
  - Retinal abnormalities (e.g. macular holes, foveal thinning, loss of foveal function, foveal dehiscence, and retinal hemorrhage)
  - Increased ocular pressure
  - Expansion of intraocular air bubbles: patients should avoid air travel, travel to high elevations, or scuba diving until the air bubble has completely dispersed.
  - Increased risk of cataracts
- Administration of Luxturna (voretigene neparvovec-rzyl) requires a vitrectomy to be performed before the sub-retinal injection. Because of this administration, Luxturna (voretigene neparvovec-rzyl) should only be administered in surgical suites authorized by Spark Therapeutics and by an experienced ophthalmologist or retinal surgeon.

Luxturna (voretigene neparvovec-rzyl) is an adeno-associated virus vector-based gene therapy.

Luxturna (voretigene neparvovec-rzyl) delivers a normal copy of the gene encoding RPE65 to cells of the retina via a sub-retinal injection. Once the virus delivers the gene to the retinal pigment epithelial cells, RPE65 is produced. Functional RPE65 converts all trans-retinol to 11-cis-retinol. 11-cis-retinol is involved in the visual (retinoid) cycle, which is critical in the conversion of photons of light into an electrical signal in the retina. Luxturna (voretigene neparvovec-rzyl) is intended to negate the effects of mutations in the RPE65 gene, which leads to reduced or absent levels of retinoid isomerohydrolase RPE65 activity and blocks the visual cycle, resulting in impairment of vision.

Treatment with Luxturna (voretigene neparvovec-rzyl) is not recommended for patients younger than 12 months of age because at that age the retinal cells are still undergoing cell proliferation, and the drug could potentially be diluted or lost during cell proliferation.

Luxturna (voretigene neparvovec-rzyl) is indicated to treat patients with confirmed biallelic RPE65 mutation-associated retinal dystrophy.

If both eyes are to be treated, the second eye can be treated after at least 6 days from the treatment of the first eye.

Voretigene neparvovec-rzyl is available as Luxturna as 0.5mL extractable volume in a single-dose 2 mL vial for a single sub-retinal injection.

## Provider Claim Codes

For medically billed requests, please visit www.humana.com/PAL. Select applicable Preauthorization and Notification List(s) for medical and procedural coding information.

## Medical Terms

Luxturna; voretigene neparvovec-rzyl; retinal dystrophy; Leber congenital amaurosis Type 2; Retinitis pigmentosa Type 20; sub-retinal injection; pharmacy

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