CareSource Rx Innovations

PHARMACY POLICY STATEMENT
Indiana Medicaid

DRUG NAME	Kygevvi (doxecitine and doxribtimine)
BENEFIT TYPE	Pharmacy
STATUS	Prior Authorization Required

Kygevvi, approved by the FDA in 2025, is a combination of doxecitine and doxribtimine, both pyrimidine nucleosides, indicated for the treatment of thymidine kinase 2 deficiency (TK2d) in adults and pediatric patients with an age of symptom onset on or before 12 years.
TK2d is a rare mitochondrial depletion syndrome in which mutations of the *TK2* gene impair the body's ability to produce and repair mitochondrial DNA (mtDNA) which leads to progressive muscle weakness. Respiratory failure is the most common cause of death.
Kygevvi is intended to incorporate the pyrimidine nucleosides, deoxycytidine and deoxythymidine, into skeletal muscle mtDNA to restore mitochondrial DNA copy number.
In a pooled survival analysis, treatment reduced the overall risk of death (from time of treatment start) by approximately 86%.

Kygevvi (doxecitine and doxribtimine) will be considered for coverage when the following criteria are met:

Thymidine Kinase 2 Deficiency (TK2d)

For **initial** authorization:
1. Medication must be prescribed by or in consultation with a neurologist; AND
2. Member has a documented diagnosis of TK2d confirmed by genetic testing (results required); AND
3. Member's symptom onset (e.g., muscle weakness) was on or before 12 years of age; AND
4. Member's liver function has been assessed at baseline (i.e., ALT, AST, bilirubin); AND
5. Member's weight must be documented.
6. **Dosage allowed/Quantity limit:** Administered orally in 3 divided doses. Titrate dosage level based on tolerability. See prescribing information for complete details.
    - Starting: 260 mg/kg/day (consisting of 130 mg doxecitine and 130 mg doxribtimine)
    - Intermediate: 520 mg/kg/day (consisting of 260 mg doxecitine and 260 mg doxribtimine)
    - Maintenance: 800 mg/kg/day (consisting of 400 mg doxecitine and 400 mg doxribtimine)

If all the above requirements are met, the medication will be approved for 12 months.

For **reauthorization**:
1. Chart notes must show improved or stabilized signs and symptoms of disease such as motor or respiratory functions.

If all the above requirements are met, the medication will be approved for an additional 12 months.

CareSource considers Kygevvi (doxecitine and doxribtimine) not medically necessary for the treatment of conditions that are not listed in this document. For any other indication, please refer to the Off-Label policy.

DATE	ACTION/DESCRIPTION
12/09/2025	New policy for Kygevvi created.

References:

1. Kygevvi [prescribing information]. UCB, Inc.; 2025.
2. Domínguez-González C, Chiang C, Colson AO, et al. Pyrimidine Nucleos(t)ide Therapy in Patients With Thymidine Kinase 2 Deficiency: A Multicenter Retrospective Chart Review Study. *Neurology*. 2025;105(6):e213908. doi:10.1212/WNL.0000000000213908
3. Domínguez-González C, Madruga-Garrido M, Mavillard F, et al. Deoxynucleoside Therapy for Thymidine Kinase 2-Deficient Myopathy. *Ann Neurol*. 2019;86(2):293-303. doi:10.1002/ana.25506
4. Wang J, El-Hattab AW, Wong LJC. TK2-Related Mitochondrial DNA Maintenance Defect, Myopathic Form. 2012 Dec 6 [Updated 2018 Jul 26]. In: Adam MP, Bick S, Mirzaa GM, et al., editors. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2025. Available from: https://www.ncbi.nlm.nih.gov/books/NBK114628/

Effective date: 07/01/2026
Revised date: 12/09/2025