tobramycin (KITABIS™ PAK); tobramycin (TOBI®); tobramycin (TOBI Podhaler®); tobramycin (Bethkis®) EOCCO POLICY

Policy Type: PA/SP Pharmacy Coverage Policy: EOCCO159

Description

Tobramycin (TOBI®) inhalation solution, generic tobramycin inhalation solution, tobramycin (KITABIS™) inhalation solution, tobramycin (TOBI Podhaler®) inhalation solution and tobramycin (Bethkis®) inhalation solution are aminoglycoside antibacterial drugs that act primarily by disrupting protein synthesis in the bacterial cell which eventually leads to death of the cell. Tobramycin inhalation solutions have activity against a wide range of gram-negative bacteria including *Pseudomonas aeruginosa*.

Length of Authorization

- Initial: 12 months (7 fills per year)
- Renewal: 12 months (7 fills per year)

Quantity limits

Product Name	Dosage Form	Indication	Quantity Limit
tobramycin (TOBI)	300 mg/5mL one single-use ampule	Cystic fibrosis with P*seudomonas aeruginosa*	56 single-dose ampules/28 days
generic tobramycin inhalation solution	300 mg/5mL one single-use ampule		56 single-dose ampules/28 days
tobramycin (KITABIS)	300 mg/5mL one single-use ampule		56 single-dose ampules/28 days
tobramycin (Bethkis)	300 mg/4 mL one single-use ampule		56 single-dose ampules/28 days
tobramycin (TOBI Podhaler)	28mg inhalation capsule		224 inhalation capsules /28 days

Initial Evaluation

I. **Generic tobramycin inhalation solution and tobramycin (KITABIS) inhalation solution** may be considered medically necessary when the following criteria below are met:
   A. Member is six years of age or older; **AND**
   B. Medication is prescribed by, or in consultation with, a pulmonologist; **AND**
   C. A diagnosis of **cystic fibrosis** when the following are met:
      1. Member has tested positive for *Pseudomonas aeruginosa* in the lungs; **AND**
      2. Member has FEV_1 >25% or <80% ; **AND**
      3. Member is not colonized *with Burkholderia cepacia*

II. **Tobramycin (TOBI) inhalation solution and tobramycin (BETHKIS) inhalation solution** may be considered medically necessary when the following criteria below are met:
   A. Criteria I(A)-I(C) above are met; **AND**

B. Generic tobramycin inhalation solution and tobramycin (KITABIS) inhalation solution have been ineffective, contraindicated, or not tolerated.

III. **Tobramycin (TOBI Podhaler) inhalation solution** may be considered medically necessary when the following criteria below are met:
   A. Criteria I(A)-I(C) above are met; **AND**
   B. Treatment with generic tobramycin inhalation solution and tobramycin (KITABIS) inhalation solution has been ineffective, contraindicated, or not tolerated; **AND**
   C. Treatment with tobramycin (TOBI) inhalation solution and tobramycin (BETHKIS) inhalation solution has been ineffective, contraindicated, or not tolerated.

IV. Generic tobramycin inhalation solution, tobramycin (KITABIS) inhalation solution, tobramycin (TOBI) inhalation solution, tobramycin (BETHKIS) inhalation solution and tobramycin (TOBI Podhaler) inhalation solution are considered investigational when used for all other conditions, including but not limited to:
   A. Non–cystic fibrosis bronchiectasis

Renewal Evaluation

I. Member has received a previous prior authorization approval for this agent through this health plan; **AND**
II. Member has exhibited improvement or stability of disease symptoms.

Supporting Evidence

I. The safety and efficacy of tobramycin inhalation solution in pediatric patients under six years of age has not been established due to the lack of clinical trial data. The use is not indicated in pediatric patients under the age of six.
II. Tobramycin inhalation solution is administered twice daily in alternating periods of 28 days. After 28 days of therapy, patients should stop tobramycin therapy for the next 28 days, and then resume therapy for the next "28 days on/28 days off" cycle. To ensure appropriate dosing of tobramycin nebulizer or podhaler in members with cystic fibrosis, approval will allow for 7 fills within a 1 year approval period.
III. Safety and efficacy have not been demonstrated in patients with FEV1 <40% or >80% (Bethkis), FEV1 <25% or >80% (Tobi Podhaler), FEV1 <25% or >75% (Tobi and Kitabis), or patients colonized with Burkholderia cepacia.
IV. Tobramycin inhalation solution is used in treatment of cystic fibrosis and need to be prescribed by, or in consultation with, a pulmonologist because of the complexity of the disease state.
V. Guidelines developed by the Pulmonary Therapies Committee of the Cystic Fibrosis Foundation made the following recommendations for tobramycin solution for inhalation (TSI) (written prior to the approval of aztreonam lysine inhalation solution (AZLI)):
   - Moderate to severe lung disease (>6 years of age): For patients colonized with P. aeruginosa, the chronic use of TSI is strongly recommended to improve lung function and reduce exacerbations (grade A recommendation).

- Mild lung disease or asymptomatic (>6 years of age): For patients colonized with P. aeruginosa, the chronic use of TSI is recommended to reduce exacerbations (grade B recommendation).

VI. In the absence of direct comparative trails there's no evidence to conclude that one product is safer or more effective than another.

Investigational or Not Medically Necessary Uses

I. Non–cystic fibrosis bronchiectasis

A. Efficacy of adding inhaled tobramycin solution (TS) to oral ciprofloxacin was studied. In a multicenter trial, 53 patients with known P. aeruginosa infection who were having exacerbations of bronchiectasis were randomly assigned to receive ciprofloxacin plus inhaled TS or ciprofloxacin plus placebo for two weeks. The addition of inhaled TS to ciprofloxacin did not improve clinical outcomes compared to ciprofloxacin alone, although there was a marked reduction of Pseudomonas density in the sputum of patients who received inhaled TS plus ciprofloxacin. Wheezing was more common in the inhaled TS plus ciprofloxacin group. Based on current data, inhaled aerosols of antibiotics, such as TS, cannot be recommended alone or in combination with ciprofloxacin for acute exacerbations in bronchiectasis.

References

1. KITABIS PAK package insert. Catalent Pharma Solutions, LLC Woodstock, IL 60098. 12/06/2019
2. TOBIPodhaler package insert. Novartis Pharmaceuticals Corporation (10/02/2015)
3. TOBI inhalation solution package insert. Novartis Pharmaceuticals Corporation (10/05/2018)
4. Bethkis inhalation solution package insert. Chiesi USA, Inc (05/29/2017)
5. Barker, A. F. (n.d.). Treatment of bronchiectasis in adults. Retrieved from https://www-uptodate.com.liboff.ohsu.edu/contents/treatment-of-bronchiectasis-in-adults?search=tobramycin in Non–cystic fibrosis bronchiectasis&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2#H23
6. Bilton, D., Henig, N., Morrissey, B., & Gotfried, M. (n.d.). Addition of Inhaled Tobramycin to Ciprofloxacin for Acute Exacerbations of Pseudomonas aeruginosa Infection in Adult Bronchiectasis. CHEST, 130(5), 1503–1510. doi: https://doi.org/10.1378/chest.130.5.1503

Policy Implementation/Update:

Date Created	May 2013
Date Effective	March 2017
Last Updated	December 2019
Last Reviewed	12/2019

Action and Summary of Changes	Date
• Updated criteria to policy format • Tobramycin (TOBI Podhaler) inhalation solution is considered medically necessary if treatment with tobramycin (KITABIS) inhalation solution and tobramycin (TOBI) inhalation solution has been ineffective, contraindicated, or not tolerated • Tobramycin (TOBI) inhalation solution and tobramycin (BETHKIS) inhalation solution are considered medically necessary if treatment with tobramycin (KITABIS) and generic tobramycin has been ineffective, contraindicated or not tolerated • Added tobramycin (KITABIS) to policy	12/2019