

**TOBRAMYCIN- tobramycin solution/ drops**  
**Akorn, Inc.**

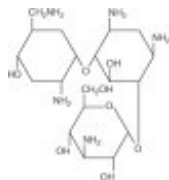
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**Tobramycin Ophthalmic Solution, USP**  
**0.3%–Sterile**

**Rx only**

**DESCRIPTION:**

Tobramycin Ophthalmic Solution USP, 0.3% is a sterile topical ophthalmic antibiotic formulation prepared specifically for topical therapy of external ophthalmic infections.

Tobramycin is a water soluble aminoglycoside antibiotic active against a wide variety of gram-negative and gram-positive ophthalmic pathogens. The molecular formula is  $C_{18}H_{37}N_5O_9$ , the molecular weight is 467.52 and the structural formula is:



**Chemical Name:**

O-{3-amino-3-deoxy- $\alpha$ -D-glucopyranosyl-(1  $\rightarrow$  4)}-O-{2,6-diamino-2,3,6-trideoxy- $\alpha$ -D-ribohexopyranosyl-(1  $\rightarrow$  6)}-2-deoxystreptamine.

**Each mL contains:**

**Active:** Tobramycin 3 mg (0.3%). **Inactives:** Boric Acid, Sodium Chloride, Sodium Sulfate, Tyloxapol, Sodium Hydroxide and/or Sulfuric Acid to adjust pH (7.0 to 8.0), and Water for Injection. **Preservative:** Benzalkonium Chloride 0.1 mg (0.01%).

**CLINICAL PHARMACOLOGY:**

*In Vitro Data:* *In Vitro* studies have demonstrated tobramycin is active against susceptible strains of the following microorganisms:

Staphylococci, including *S. aureus* and *S. epidermidis* (coagulase-positive and coagulase-negative), including penicillin-resistant strains.

Streptococci, including some of the Group A beta-hemolytic species, some nonhemolytic species, and some *Streptococcus pneumoniae*.

*Pseudomonas aeruginosa*, *Escherichia coli*, *Klebsiella pneumoniae*, *Enterobacter aerogenes*, *Proteus mirabilis*, *Morganella morganii*, most *Proteus vulgaris* strains, *Haemophilus influenzae* and *H. aegyptius*, *Moraxella lacunata*, *Acinetobacter calcoaceticus* and some *Neisseria* species.

Bacterial susceptibility studies demonstrate that in some cases, microorganisms resistant to gentamicin retain susceptibility to tobramycin.

**INDICATIONS AND USAGE:**

Tobramycin Ophthalmic Solution USP, 0.3% is a topical antibiotic indicated in the treatment of external infections of the eye and its adnexa caused by susceptible bacteria. Appropriate monitoring of bacterial

response to topical antibiotic therapy should accompany the use of Tobramycin Ophthalmic Solution USP, 0.3%. Clinical studies have shown tobramycin to be safe and effective for use in pediatric patients.

### **CONTRAINDICATIONS:**

Tobramycin Ophthalmic Solution USP, 0.3% is contraindicated in patients with known hypersensitivity to any of its components.

### **WARNINGS:**

**FOR TOPICAL OPHTHALMIC USE ONLY. NOT FOR INJECTION INTO THE EYE.** Sensitivity to topically applied aminoglycosides may occur in some patients. If a sensitivity reaction to Tobramycin Ophthalmic Solution USP, 0.3% occurs, discontinue use.

### **PRECAUTIONS:**

#### **General:**

As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. If superinfection occurs, appropriate therapy should be initiated. Cross-sensitivity to other aminoglycoside antibiotics may occur; if hypersensitivity develops with this product, discontinue use and institute appropriate therapy. Patients should be advised not to wear contact lenses if they have signs and symptoms of bacterial conjunctivitis.

**Information for Patients:** Do not touch dropper tip to any surface, as this may contaminate the solution.

**Pregnancy Category B:** Reproduction studies in three types of animals at doses up to thirty-three times the normal human systemic dose have revealed no evidence of impaired fertility or harm to the fetus due to tobramycin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

**Nursing Mothers:** Because of the potential for adverse reactions in nursing infants from tobramycin, a decision should be made whether to discontinue nursing the infant or discontinue the drug, taking into account the importance of the drug to the mother.

**Pediatric Use:** Safety and effectiveness in pediatric patients below the age of two months has not been established.

**Geriatric Use:** No overall clinical differences in safety or effectiveness have been observed between the elderly and other adult patients.

### **ADVERSE REACTIONS:**

The most frequent adverse reactions to tobramycin ophthalmic solution are hypersensitivity and localized ocular toxicity, including lid itching and swelling, and conjunctival erythema. These reactions occur in less than three of 100 patients treated with tobramycin. Similar reactions may occur with the topical use of other aminoglycoside antibiotics. Other adverse reactions have not been reported from tobramycin therapy; however, if topical ocular tobramycin is administered concomitantly with systemic aminoglycoside antibiotics, care should be taken to monitor the total serum concentration.

### **OVERDOSAGE:**

Clinically apparent signs and symptoms of an overdose of tobramycin ophthalmic solution (punctate keratitis, erythema, increased lacrimation, edema and lid itching) may be similar to adverse reaction

effects seen in some patients.

### DOSAGE AND ADMINISTRATION:

In mild to moderate disease, instill one or two drops into the affected eye(s) every four hours. In severe infections, instill two drops into the eye(s) hourly until improvement, following which treatment should be reduced prior to discontinuation.

### HOW SUPPLIED:

Tobramycin Ophthalmic Solution USP, 0.3% is supplied as a sterile solution in plastic dropper bottles in two sizes:

NDC 17478-290-20 . . . . . 2 mL

NDC 17478-290-10 . . . . . 5 mL

### STORAGE:

Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Keep container tightly closed.

Protect from excessive heat.

### Akorn

Manufactured by: **Akorn, Inc.**  
Lake Forest, IL 60045

GTM00N  
Rev. 10/16

Principal Display Panel Text for Container Label:

NDC 17478-290-10

Tobramycin

Ophthalmic

Solution, USP

0.3%

Sterile

Rx only 5mL

EXP. LOT

(01)00317478290100

**For Topical Ophthalmic Use Only.**  
**Usual Dosage:** One or two drops every four hours. See package insert for dosage information.  
**Storage:** Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Keep container tightly closed. Protect from excessive heat.  
**Note:** Bottle filled to 1/2 capacity for proper drop control.

NDC 17478-290-10  
**Tobramycin  
Ophthalmic  
Solution, USP**  
**0.3%**  
Sterile  
5 mL

**Each mL contains:**  
**Active:** Tobramycin 3 mg (0.3%);  
**Inactives:** Boric Acid, Sodium Chloride, Sodium Sulfate, Tyloxapol, Sodium Hydroxide and/or Sulfuric Acid to adjust pH (7.0 to 8.0), and Water for Injection;  
**Preservative:** Benzalkonium Chloride 0.1 mg (0.01%).  
Mfd. by: **Akorn, Inc.**, Lake Forest, IL 60045  
TMAGL Rev. 10/16

Rx only

Principal Display Panel Text for Carton Label:

NDC 17478-290-10

Tobramycin

Ophthalmic

Solution, USP

0.3%

Sterile

5 mL

Rx only Akorn



TMAGC 1016

NDC 17478-290-10

NDC 17478-290-10

**For Topical Ophthalmic Use Only.**

**Usual Dosage:** One or two drops every four hours. See package insert for dosage information.

**Storage:** Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Keep container tightly closed. Protect from excessive heat.

# Tobramycin Ophthalmic Solution, USP

0.3%

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**Preservative:** Benzalkonium Chloride 0.1 mg (0.01%).

**Note:** Bottle filled to 1/2 capacity for proper drop control.

# Tobramycin Ophthalmic Solution, USP

0.3%

**Precaution:** Do not touch dropper tip to any surface as this may contaminate the solution.

**WARNING - KEEP OUT OF THE REACH OF CHILDREN.**

**DO NOT USE IF IMPRINTED SEAL IS BROKEN OR MISSING.**

Sterile

5 mL



N 3 17478-290-10 0

Manufactured by:  
**Akorn, Inc.**  
Lake Forest, IL 60045  
TMAGC Rev. 10/16

Sterile

5 mL

R<sub>x</sub>only

AKORN

R<sub>x</sub>only

AKORN

## TOBRAMYCIN

tobramycin solution/ drops

### Product Information

**Product Type**

HUMAN PRESCRIPTION DRUG

**Item Code (Source)**

NDC:17478-290

**Route of Administration**

OPHTHALMIC

**Active Ingredient/Active Moiety**

Ingredient Name	Basis of Strength	Strength
<b>Tobramycin</b> (UNII: VZ8RRZ51VK) (Tobramycin - UNII:VZ8RRZ51VK)	Tobramycin	3 mg in 1 mL

**Inactive Ingredients**

Ingredient Name	Strength
<b>Boric Acid</b> (UNII: R57ZHV85D4)	
<b>Sodium Chloride</b> (UNII: 451W47IQ8X)	
<b>sodium Sulfate</b> (UNII: 0 YPR65R21J)	
<b>Tyloxapol</b> (UNII: Y27PUL9H56)	
<b>Sodium Hydroxide</b> (UNII: 55X04QC32I)	
<b>Sulfuric Acid</b> (UNII: O40UQP6WCF)	
<b>WATER</b> (UNII: 059QF0KO0R)	
<b>Benzalkonium Chloride</b> (UNII: F5UM2KM3W7)	

**Packaging**

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:17478-290-10	1 in 1 CARTON	01/31/1996	
1		5 mL in 1 BOTTLE, DROPPER; Type 0: Not a Combination Product		
2	NDC:17478-290-20	1 in 1 CARTON	01/31/1996	
2		2 mL in 1 BOTTLE, DROPPER; Type 0: Not a Combination Product		

**Marketing Information**

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA064096	01/31/1996	

**Labeler** - Akorn, Inc. (062649876)**Establishment**

Name	Address	ID/FEI	Business Operations
Akorn, Inc.		155135783	MANUFACTURE(17478-290) , REPACK(17478-290) , ANALYSIS(17478-290) , LABEL(17478-290) , PACK(17478-290) , RELABEL(17478-290) , STERILIZE(17478-290)

Revised: 12/2017

Akorn, Inc.