# TOBRAMYCIN OPHTHALMIC SOLUTION - tobramycin ophthalmic solution solution/ drops Alembic Pharmaceuticals Inc.

-----

**Tobramycin Ophthalmic Solution USP, 0.3%** 

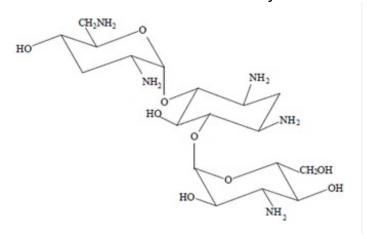
#### **DESCRIPTION**

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

**Each mL of Tobramycin Ophthalmic Solution USP contains: Active**: tobramycin 0.3% (3 mg). **Preservative**: benzalkonium chloride 0.01% (0.1 mg). **Inactives**: boric acid, sodium sulfate decahydrate, sodium chloride, tyloxapol, sodium hydroxide and/or sulfuric acid (to adjust pH) and water for injection. Tobramycin ophthalmic solution USP, 0.3% has a pH range between 7.0 and 8.0 and an osmolality of 260 to 320 mOsm/kg.

Tobramycin is a water-soluble aminoglycoside antibiotic active against a wide variety of gram-negative and gram-positive ophthalmic pathogens.

The chemical structure of tobramycin is:



Molecular Weight = 467.52Molecular Formula:  $C_{18}H_{37}N_5O_9$ 

#### Chemical name:

 $0-{3-amino-3-deoxy-α-D-gluco-pyranosyl-(1→4)}-0-{2,6-diamino-2,3,6-trideoxy-α-D-ribohexo-pyranosyl-(1→6)}-2-deoxystreptamine.$ 

#### **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 mirabillis, Morganella morganii, most Proteus vulgaris strains, Haemophilus influenzea 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, 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. Clinical studies have shown tobramycin to be safe and effective for use in children.

#### CONTRAINDICATIONS

Tobramycin ophthalmic solution, 0.3% is contraindicated in patients with known hypersensitivity to any of its components.

#### WARNINGS

FOR TOPICAL OPHTHALMIC USE. NOT FOR INJECTION INTO THE EYE. Sensitivity to topically applied aminoglycosides may occur in some patients. Severity of hypersensitivity reactions may vary from local effects to generalized reactions such as erythema, itching, urticaria, skin rash, anaphylaxis, anaphylactoid reactions, or bullous reactions. If a sensitivity reaction to Tobramycin ophthalmic solution, 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 ocular infection.

# **Information for Patients**

Do not touch dropper tip to any surface, as this may contaminate the solution.

# **Pregnancy**

Reproduction studies in 3 types of animals at doses up to 33 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 ophthalmic solution, 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 2 months has not been established.

#### Geriatric Use

No overall differences in safety or effectiveness have been observed between elderly and younger patients.

#### **ADVERSE REACTIONS**

The most frequent adverse reactions to Tobramycin ophthalmic solution, 0.3% 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 ophthalmic solution.

**Postmarketing Experience:** Additional adverse reactions identified from postmarketing use include anaphylactic reaction, Stevens-Johnson syndrome, and erythema multiforme.

The following additional adverse reactions have been reported with systemic aminoglycosides: Neurotoxicity, ototoxicity and nephrotoxicity have occurred in patients receiving systemic aminoglycoside therapy. Aminoglycosides may aggravate muscle weakness in patients with known or suspected neuromuscular disorders, such as myasthenia gravis or Parkinson's disease, because of their potential effect on neuromuscular function.

#### DOSAGE AND ADMINISTRATION

In mild to moderate disease, instill 1 or 2 drops into the affected eye(s) every 4 hours. In

severe infections, instill 2 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 in opaque white low density polyethylene bottle which is closed with natural low density polyethylene nozzle and then with tan colored high density polyethylene cap containing tobramycin 0.3% (3 mg/mL).

5 mL in a 5 mL bottle (NDC 62332-518-05)

**Storage**: Store at 2°C to 25°C (36°F to 77°F).

After opening, Tobramycin ophthalmic solution USP, 0.3% can be used until the expiration date on the bottle.

Manufactured for:

Alembic Pharmaceuticals, Inc.

Bedminster, NJ 07921, USA.

Manufactured by:

#### **Alembic Pharmaceuticals Limited**

Karakhadi - 391 450, Gujarat, India.

(or)

Manufactured by:

### **Gland Pharma Limited**

D.P. Pally, Dundigal Post, Hyderabad-500 043, India (IND)

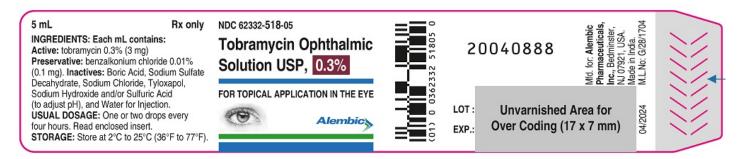
Revised: 04/2024

## PACKAGE LABEL.PRINCIPAL DISPLAY PANEL

Tobramycin Ophthalmic Solution USP, 0.3 % - Bottle Label: Gland



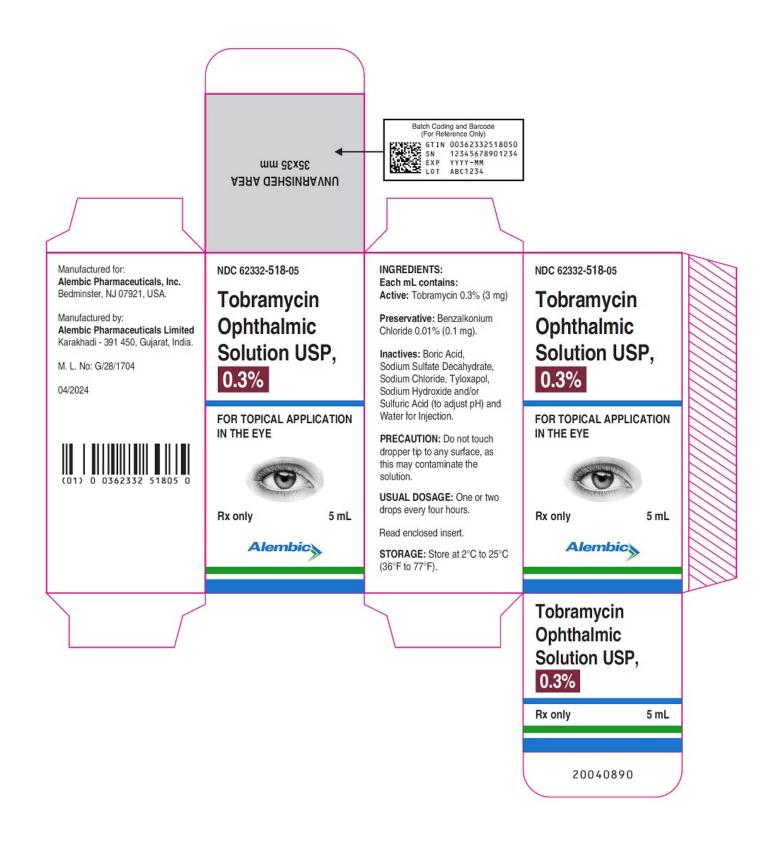
# Tobramycin Ophthalmic Solution USP, 0.3 % - Bottle Label: Alembic



Tobramycin Ophthalmic Solution USP, 0.3 % - Carton Label: Gland



**Tobramycin Ophthalmic Solution USP, 0.3 % - Carton Label: Alembic** 



# **TOBRAMYCIN OPHTHALMIC SOLUTION**

tobramycin ophthalmic solution solution/ drops

<b>Product Information</b>			
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:62332-518
Route of Administration	OPHTHALMIC		

Active Ingredient/Active Moiety			
Ingredient Name	<b>Basis of Strength</b>	Strength	
TOBRAMYCIN (UNII: VZ 8RRZ 51VK) (TOBRAMYCIN - UNII: VZ 8RRZ 51VK)	TOBRAMYCIN	3 mg in 1 mL	

Inactive Ingredients	
Ingredient Name	Strength
BENZALKONIUM CHLORIDE (UNII: F5UM2KM3W7)	
BORIC ACID (UNII: R57ZHV85D4)	
TYLOXAPOL (UNII: Y27PUL9H56)	
SODIUM SULFATE (UNII: 0YPR65R21J)	
SODIUM CHLORIDE (UNII: 451W47IQ8X)	
SODIUM HYDROXIDE (UNII: 55X04QC32I)	
SULFURIC ACID (UNII: O40UQP6WCF)	
WATER (UNII: 059QF0KO0R)	

P	Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date	
1	NDC:62332-518- 05	1 in 1 CARTON	04/19/2019		
1		5 mL in 1 BOTTLE; Type 0: Not a Combination Product			

Marketing Information				
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date	
ANDA	ANDA211847	04/19/2019		

# Labeler - Alembic Pharmaceuticals Inc. (079288842)

Establishment			
Name	Address	ID/FEI	<b>Business Operations</b>
Gland Pharma Limited		918601238	MANUFACTURE(62332-518)

Establishment				
Name	Address	ID/FEI	<b>Business Operations</b>	
Alembic Pharmaceuticals Limited (F3)		675480734	MANUFACTURE(62332-518)	

Revised: 6/2024 Alembic Pharmaceuticals Inc.