

## **Tomyacin-D**

Tobramycin & Dexamethasone

### **Composition**

Each gram contains Tobramycin USP 3 mg & Dexamethasone USP 1 mg.

### **Description**

Tomyacin (Tobramycin) is sterile multiple dose antibiotic for topical ophthalmic use. Tobramycin (an aminoglycoside) binds irreversibly with 30S ribosomal subunit and inhibit protein synthesis that ultimately leads to bacterial cell death. Tobramycin works by killing bacteria and Dexamethasone (a steroid) suppresses the inflammatory response.

### **Pharmacology**

Tobramycin (an aminoglycoside) is excellent against aerobic gram negative organisms and because of its polarity; negligible amount can enter into the systemic circulation so side effect is very less. The antibiotic Tobramycin provides action against following common bacterial eye pathogens- Staphylococci- including *S. aureus*, *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 aeruginosa*, *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 micro-organism resistant to Gentamicin remains susceptible to Tobramycin. Dexamethasone is a potent corticosteroid.

### **Indications and usage**

- ❖ Superficial ocular infection and its adnexa like conjunctivitis, blepharitis, blepharo-conjunctivitis, keratitis, corneal ulcer caused by susceptible bacterial organism;
- ❖ Where risk of superficial ocular infection is high;
- ❖ Or there is an expectation that potentially dangerous number of bacteria will be present in the eye.
- ❖ Ocular steroid in this combination produces prompt action in inflammatory conditions palpebral and bulber conjunctiva, cornea and anterior segment of the globe to obtain diminution in edema and inflammation.
- ❖ They are also indicated in chronic anterior uveitis and corneal injury from chemical, radiation or thermal burns or penetration of foreign bodies.

### **Dosage & administration**

- ❖ In mild to moderate infections, instill one drops into the affected eyes every 4 hours during 1-2 days.
- ❖ In severe infections, instill 1 drop into the eyes hourly until improvement.
- ❖ Not more than 20 ml should be prescribed at a time.

**Missed dose**

If you miss a dose of this medicine, use it as soon as possible, however, if it is almost time for the next dose skip the missed dose and go back to your regular dosing schedule.

**For the patient**

If your doctor ordered two different ophthalmic drops to be used together, wait at least 5 minutes between the time you apply the medicines.

**Contraindications**

Viral infection, fungal infection, mycobacterial infection and known hypersensitivity to any of the component of this combination.

**Adverse reactions**

The reactions due to Tobramycin are localized ocular toxicity and hypersensitivity, including lid itching and swelling and conjunctival erythema, in case of 4% patients found only.

The reactions due to steroid component are elevation of intraocular pressure, posterior subcapsular cataract formation and delayed wound healing.

**Precaution**

Prolonged use may result in overgrowth of non-susceptible organisms including fungi. If superinfection occurs, appropriate therapy should be initiated. If hypersensitivity develops discontinue use and initiate appropriate therapy.

**Pregnancy**

Corticosteroids have been found teratogenic in animal studies. If maximum dose is given and complete systemic absorption occurs, which is highly unlikely the daily dose of Dexamethasone would be 2.4 mg.

Reproduction studies of Tobramycin in rat revealed no evidence of impaired fertility or harm to the fetus. Tomycin-D eye drops should be used during pregnancy only if potential benefit justifies the potential risk to the fetus.

**Nursing mother**

Systemically administered corticosteroid may appear into the human milk and could suppress growth, interfere with endogenous corticosteroid production or cause untoward effects. But it is not known whether topical administration of corticosteroid could result sufficient systemic absorption to produce detectable quantity in human milk. Tobramycin is not absorbed from GIT so it cannot go in the systemic circulation of nursing babies. Special caution should be taken when Tomycin-D eye drops is administered to a nursing woman.

**Presentation**

**Tomycin-D eye drops:** Dropper bottle contains 5 ml sterile eye drops.

**Tomycin-D eye ointment:** Each tube contains 3.5 gm ointment

**Manufactured by**

The **IBN SINA** Pharmaceutical Industry Ltd.  
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