

Delivery Methods for Pharmaceuticals

- Intraocular – injection into eye
 - Intravitreal – Injection into vitreous
 - Intracameral – Injection into anterior chamber
- Systemic – whole body or system
 - Oral (as in pill)
 - Intramuscular – Injection into tissue (like that shot in the butt)
 - Intravenous – Injected into a blood vessel (the IV tube at the hospital)
- Periocular – area surrounding the eye
 - Subconjunctival – (Conjunctiva is a thin tissue that covers the sclera and inside of eyelids) – Injection can allow drug to bypass the epithelium
 - Sub tenon – space between sclera and the capsule – injections can be placed there
 - Retrobulbar – area behind the eyeball, an injection of anesthesia can be made there prior to surgery
 - Peribulbar – injection typically area above or below orbit of eye
- Topical
 - Eye drops or gels place on the eye
 - Ointments placed on or near eye
 - Bandage contact lens – lenses infused with medication

Typical Drugs or Medications

- Antibiotics/Antibacterial – treat infections caused by bacteria
 - Penicillin, Cephalosporins, Sulfonamides, Tetracyclines, Chloramphenicol, Aminoglycosides, Fluoroquinolones, Vancomycin, Macrolides
- Antivirals – inhibits ability of virus to multiply
 - Acyclovir
 - Trifluridine
 - Ganciclovir

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- Antifungals
 - Polyenes
 - Amphotericin B
 - Natamycin
 - Nystatin
 - Imidazoles
 - Miconazole
 - Ketoconazole
 - Fluconazole
 - Flucytocine
- Mydriatics/Cycloplegics to dilate pupil and/or paralyze the ciliary muscle
 - Tropicamide – 4 to 6-hour effect
 - Homatropine – 24-hour effect
 - Atropine – 2-week effect
- Antiglaucoma – typically to reduce aqueous production or increase outflow
 - Beta-blockers
 - Betaxolol
 - Timolol
 - Carbonic Anhydrase Inhibitors
 - Acetazamide (Systemic)
 - Dorzolamide (Topical)
 - Brinzolamide (Topical)
 - Prostaglandins
 - Latanoprost
 - Bimatoprost
 - Travoprost
- Anti-inflammatories
 - Corticosteroids (never used if infection present)
 - Short duration
 - Hydrocortisone, Prednisolone, Cortisone
 - Intermediate duration

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- Triamcinolone, Fluprednisolone
 - Long duration
 - Dexamethasone, Betamethasone
 - NSAIDS – Topicals
 - Flurbiprofen, Indomethacine, Ketorolac
- Lubricants
 - Refresh Tears
 - Tears Naturale II
 - Tear Plus
 - Moisol
 - Dudrop
- Anti-allergics
 - Antihistamine
 - Pyrilamine maleate, Pheniramine maleate, Antazoline phosphate
 - Vasoconstrictors
 - Phenylephrine
- Diagnostics
 - Fluorescein dye – drops or strips
 - Rose Bengal stain
- Anesthetics, local
 - Topical
 - Propacaine, Tetracaine
 - Orbital
 - Lidocaine, Bupivacaine