



EYE SURGERY CENTER
AT THE BILTMORE

Eye Surgery Center at the Biltmore Medication List

Below is a list of medications that are typically used during eye surgery in our center. We have included the usage of these medications and some side effects, if you have questions or concerns please ask your physician, nurse or anesthesia provider. Be sure to alert your nurse and physician to any known allergies that you have.

It is always possible for a person to experience other reactions following the administration of any medication, if you have any questions or concerns following your surgery please consult your physician.

Pre Surgical Eye Drops:

Anesthetic Eye drops, (Alcaine, Proparacaine, Tetracaine): A topical eye anesthetic used during eye surgery and eye procedures causing numbing of the surface of the eye. Side effects may include; stinging, burning and irritation conjunctival redness; overuse can cause drying of the cornea. Use caution and not to rub the eye until the effects have worn off; which will occur in approximately 30 minutes.

Antibiotic Eye drops are used to prevent eye infections, use as directed by your physician. Note: stopping this medication early may result in the infection returning.

Ocuflox (Ofloxacin); Vigamox (Moxifloxacin) : These medications are used to treat bacterial eye infections. Ofloxacin and Moxifloxacin belongs to a class of drugs called quinolone antibiotics. They work by stopping the growth of bacteria. Side effects may include: temporary stinging or burning of the eyes for a minute or two when applied. Temporary blurred vision, eye discomfort, itching, redness, dryness, tearing, feeling as if something is in your eye, or sensitivity to light may occur. If any of these effects persist or worsen, notify your doctor or pharmacist promptly. Do not use if patient is allergic to Quinolone antibiotics (e.g: Ciprofloxacin, Norfloxacin, Moxifloxacin, Levofloxacin).

Trobramycin: (Tobrex) is an aminoglycoside antibiotic used to treat bacterial infections of the eye. It works by stopping the growth of bacteria. Side effects may include; tearing, eye redness, eye discomfort, eyelid itching, or swelling . Use of this medication for prolonged or repeated periods may result in a new fungal eye infection. Do not use it for longer than prescribed. If any of these effects persist or worsen, notify your doctor or pharmacist promptly. Do not use if the patient is allergic

to Tobramycin or other Aminoglycosides (e.g. Gentamicin). Do not wear contact lenses while you are using this medicine.

Phenylephrine ophthalmic drops (Neo-synephrine, Mydrin) : 2.5 % and 10% solutions, are used to dilate (enlarge) the pupil before eye surgery. Side effects may include; burning, tearing, light sensitivity, and blurred vision. Do not use if the patient is allergic to phenylephrine. Use caution in patients with narrow angle glaucoma and hypertension.

Mydracyl (Tropicamide) : This medication is in a class of drugs known as anticholinergics and is used to dilate the pupil of the eye by relaxing certain eye muscles. It is used in preparation for eye surgery and some eye examinations. Side effects may include; burning, stinging, redness, temporary blurred vision, dry mouth, or sensitivity to light .

Cyclogyl (Cyclopentolate): This medication is in a class of drugs known as anticholinergics. It works by temporarily dilating the pupil of the eye and relaxing the muscles of the eye. It is used in preparation for eye surgery and some eye examinations. Side effects may include; burning, stinging, redness of the eye, eye irritation, or temporary blurred vision. Do not use in patients that are allergic to Cyclopentolate or Belladonna Alkaloids (e.g., Atropine).

Non-steroidal anti-inflammatory - NSAIDS (Ketorolac, Acular): NSAIDS work by blocking the production of prostaglandin, a substance that causes pain. It also works to reduce swelling and inflammation following eye surgery. Side effects may include; headache, temporary stinging, burning of the eye. Do not use in patients that are allergic to Ketorolac, Acular, Toradol or other non-steroidal anti-inflammatory drugs (e.g. Ibuprofen, Naproxen, Celecoxib) or Aspirin.

Pilocarpine (Pilocar): This medication is in a class of drugs known as cholinergics . Pilocarpine is used to constrict the pupil when a smaller pupil is required for eye surgery. It may be used during surgery to decrease the pupil size. Pilocarpine is also used to treat glaucoma symptoms by decreasing the pupil size and decreasing the fluid inside the eye. Side effects may include; temporary irritation, burning, stinging of the eye, temporary blurred vision, poor vision in dim light (do not drive, especially at night after using this medication), headache, or brow ache . Do not use if the patient has an allergy to Pilocarpine. Caution in use in patients with asthma, heart disease, or recent heart attacks.

Betadine drops: A diluted betadine solution is used to disinfect the eye tissues and help prevent eye infections both prior to and following eye surgery. Side effects may include: stinging, burning and/ or eye irritation. Do not use if the patient is allergic to topical Betadine.

Intravenous Medications:

Anti- anxiety/ Sedatives:

Versed (Midazolam): Versed is a benzodiazepine drug that causes relaxation, sleepiness and can cause a partial or complete loss of memory during the use of the drug. It is frequently used prior to surgery to calm and relax the patient. Side effects may include; pain, tenderness and redness at the injection site, nausea, and drowsiness.

Diprivan (Propofol): Diprivan is a short –acting hypnotic, amnestic sedative used for relaxation prior to surgical procedures. Diprivan is administered intravenously. Side effects may include; slight burning or stinging around the injection site, numbness or tingling feeling, nausea, cough, confusion, agitation, and anxiety.

Non-steroidal anti-inflammatory (NSAIDS); (Toradol, Ketorolac) : May be given for short term pain relief usually given before or after surgery, also to decrease swelling. It works by blocking the body's production of certain natural substances that cause inflammation. Side effects may include: upset stomach, nausea, vomiting, constipation, diarrhea, gas, dizziness, or drowsiness may occur. NSAIDS can also cause bleeding if taken over long periods of time (take only for the prescribed number of days). Do not use in patients that are allergic to Ketorolac, Toradol, other non-steroidal anti-inflammatory drugs (e.g. Ibuprofen, Naproxen, Celecoxib) or Aspirin.

Fentanyl (Sublimaze) : Fentanyl is a narcotic (opioid) analgesic. It works in the brain and nervous system to cause anesthesia and decrease pain. Fentanyl is given intravenously and used for producing anesthesia for surgery and treating pain before, during and after surgery. Side effects may include: drowsiness, lightheadedness, weakness, fatigue, feelings of euphoria.

Xylocaine (Lidocaine) : Xylocaine Is a local anesthetic agent that is injected around the eye for numbing the eye or can be used in a jelly form that is used directly on the surface of the eye for local anesthesia. In the injection form, lidocaine is usually mixed with hyaluronidase to help with absorption and distribution of the injection. Side effects may include; stinging and burning, redness, temporary blurred vision. Following an injection of the medication it can take several hours to completely wear off. If your eye has been patched closed follow the instructions for removing the patch; corneal abrasions may occur if the patch is removed too soon.

Marcaine (Bupivacaine Hydrochloride): Bupivacaine is an anesthetic (numbing medicine) that blocks the nerve impulses that send pain signals to your brain. Side effects may include; stinging and burning, double vision, redness and bruising around the injection site, weak or shallow breathing; fast heart rate, gasping, feeling unusually hot; slow heart rate, weak pulse; feeling restless or anxious, ringing in the ears, metallic taste, speech problems, numbness or tingling around your mouth, tremors, feeling light-headed, or fainting; or problems with urination and allergic reactions. Following an injection of the medication it can take several hours to completely wear off, if your eye has been patched closed follow the instructions for removing the patch; corneal abrasions may occur if the patch is removed too soon.

Antihypertensive Agents (Blood Pressure lowering medications) medication may be given to reduce the blood pressure, if the pressure is higher than optimal. Lowering high blood pressure helps prevent strokes, heart attacks, and kidney problems.

Labetalol (Trandate): This medication is both an alpha blocker and beta blocker. It works by blocking the action of certain natural chemicals in your body such as epinephrine on the heart and blood vessels. This effect lowers the heart rate, blood

pressure, and strain on the heart. Side effects may include; tiredness, diarrhea, lightheadedness, hypotension (low blood pressure), or dizziness especially on standing.

Hydralazine (Apresoline): Hydralazine is a vasodilator. It is used to lower high blood pressure, and works by relaxing blood vessels so blood can flow through the body more easily. Side effects may include; pounding/fast heartbeat, loss of appetite, nausea, vomiting, diarrhea, lightheadedness, hypotension (low blood pressure) or dizziness especially on standing.

Dextrose: Intravenous glucose medication that is used to raise the body's blood sugar. It is given intravenously if blood sugar level is too low. Side effects may include; Increased blood sugar.

Antiemetic: Given to prevent or treat nausea and or vomiting.

Zofran (Ondansetron): Is used to prevent and treat nausea and vomiting after surgery. It works by blocking one of the body's natural substances (serotonin) that causes vomiting. Side effects may include; headaches, lightheadedness, dizziness, drowsiness or tiredness. Tell your physician if you are allergic to serotonin blockers.

Compazine (Prochlorperazine Maleate): This medication is used to treat severe nausea and vomiting from various causes (e.g., anti-cancer treatment, migraine headaches, after surgery). Prochlorperazine is a phenothiazine medication that works by affecting the balance of natural chemicals (neurotransmitters) in the brain to reduce nausea and the urge to vomit. Side effects include; dizziness, blurred vision, or dry mouth.

Intra-operative Medications:

Antibiotic eye drop (Vigamox, Ocuflax, Tobramycin): See pre-operative antibiotic eye drops.

Antibiotic injections (Vigamox, Cefuroxime): Injections in the eye post surgery to reduce the risk of post operative infections. Side effects may include; stinging, burning or redness around the injection site.

Steroid eye drops (Predforte, Prednisolone): Reduces inflammation in the eye following eye surgery. Can cause the pressure in the eye to increase.

Trimoxi (Triamcinolone and Moxifloxacin) injection: Trimoxi is a single injection of the steroid Triamcinolone and the antibiotic Moxifloxacin that some surgeons choose to use on their patients. The Trimoxi is injected into the eye following cataract surgery. In most cases there is no need for antibiotic eye drops before surgery and no need for antibiotic or steroid eye drops following cataract surgery if this injection is used. Side effects may include; floaters for a few days post injection, blurred vision in the immediate post operative period, and an increase in eye pressure in patients with glaucoma.

Pilocarpine, Miochol and Miostat are medications used to constrict the pupil during or

following some eye surgeries, these medications may cause brow aching or headaches temporarily.

Balanced salt solution- used to moisten the surface of the eye and keep the eye chamber inflated during cataract removal.

Shugarcaine (Phenylephrine, Lidocaine and Balanced Salt Solution mixture): Shugarcaine is sometimes injected into the anterior chamber of the eye during cataract surgery to increase and/ or maintain the pupil dilation, or to reduce floppy iris syndrome during cataract surgery in patients that have used Flomax.

Pressure Lowering Eye drops: The eye drops are sometimes used to lower the pressure in the eye following eye surgery or eye procedures such as laser procedures.

Alphagan(Brimonidine tartrate): Alphagan is an eye drop that is used to treat high fluid pressure in the eye or open-angle glaucoma . This medication lowers the eye pressure by allowing better fluid drainage from within the eye and also by reducing the amount of fluid formed in the eye. Side effects may include; eye discomfort, itching, redness, blurred vision, dizziness, dry mouth, drowsiness, or tiredness.

Iopidine (Apraclonidine): Iopidine is thought to work by decreasing the amount of fluid within the eye. This medication is used to treat or prevent high pressure inside the eye that may occur during and after laser eye surgery. Decreasing high pressure inside the eye may help to prevent decreased vision or blindness in the eye treated by laser surgery. Side effects may include; eye discomfort; redness; burning, blurred vision, upset stomach, dizziness, or drowsiness. Eye itching, watering or eyelid swelling may be symptoms of an allergic reaction of the eye. If any of these effects persist or worsen, tell your doctor.

Post operative Medications:

Diamox (acetazolamide): Is a diuretic medication that helps to reduce the pressure in the eye following cataract surgery and other eye surgeries. It may cause gastric discomfort; take with food such as crackers. Side effects may include; temporary numbness and tingling of fingers and /or toes, drink plenty of fluids and eat potassium rich food for 12 hours if numbness occurs. This medication may be withheld for patients with kidney failure or sulfa allergies.

Post operative Antibiotics and Steroid medications are the same as those used pre operatively. Failure to use antibiotics and steroid eye drops as prescribed may result in an eye infection or an increase in inflammation following surgery.

Analgesics:

Tylenol (acetaminophen): Acetaminophen can be used for mild to moderate pain associated with eye surgery. Acetaminophen comes in many different forms and brand names, read the instructions on the bottle for proper dosing. Do not use more of this medication than the manufacturer's recommended dosage or frequency. An

over dosage of acetaminophen can cause liver damage. If your pain persists call your physician.

Ibuprofen is a nonsteroidal anti-inflammatory drug (NSAIDS). It works by blocking your body's production of certain natural substances that cause inflammation. This effect helps to decrease swelling, pain, or fever. Read the instructions on the bottle for proper dosing. Do not use this medication more than the manufacturer's recommend dosage or frequency. If your pain persists call your physician.

Vicodin (Acetaminophen and Hydrocodone): Occasionally after some types of eye surgery the physician may prescribe a stronger pain medication for you to have filled at your local pharmacy. One such medication is Vicodin. Vicodin contains a combination of acetaminophen and hydrocodone. Hydrocodone is an opioid (narcotic) pain medication. Acetaminophen is a less potent pain reliever that increases the effects of hydrocodone. Vicodin is used to relieve moderate to severe pain. Use only as directed. If the pain is not relieved call your physician. Hydrocodone can slow or stop your breathing. Never use Vicodin in larger amounts, or for longer than prescribed. Narcotic pain medicine may be habit-forming, even at regular doses. Never share Vicodin with another person, especially someone with a history of drug abuse or addiction. Keep the medication in a place where others cannot get to it. Do not use this medicine if you have taken an MAO inhibitor in the past 14 days.

Percocet (Oxycodone and Acetaminophen) Percocet is a combination drug consisting of oxycodone (opioid drug type) and acetaminophen. Percocet is used for the management of moderate to severe pain. Adverse reactions which may occur with Percocet are similar to those observed with other opioid analgesics; they include respiratory depression, apnea (periodic stopping of breathing), respiratory arrest, circulatory depression, hypotension (low blood pressure), shock, and death. This opioid is often a drug of choice for addictive use and can easily lead to dependency. Use only as directed. If the pain is not relieved call your physician.

Allergic Response:

Many drugs can cause adverse side effects, and certain medicines can trigger allergic reactions. In an allergic reaction, the immune system mistakenly responds to a drug by creating an immune response against it. The immune system recognizes the drug as a foreign substance and the body produces certain chemicals, such as large amounts of histamine, in an attempt to expel the drug from the body. The release of histamine can cause symptoms like hives, skin rash, itchy skin or eyes, congestion, and swelling in the mouth and throat. A more severe reaction, called anaphylaxis, may include difficulty breathing, blueness of the skin, dizziness, fainting, anxiety, confusion, rapid pulse, nausea, diarrhea, and abdominal problems. If you experience an allergic reaction contact your physician immediately. **If you experience a severe or life threatening reaction call 911 immediately.**