**STANDARD OPERATING PROCEDURE (CATARACT)**

* **EVALUATION AND EXAMINATION**
1. **HISTORY**

 **Following points pertaining to the presenting complaints will be obtained**

* Detailed history pertaining to duration and progression of

vision loss, glare, contrast sensitivity, coloured halos, flashes of light, dark spots in the field of vision, polyopia, redness, watering and itching will be obtained.

* Past history of any previous ocular diseases , ocular surgery and outcome of the surgery and ocular trauma will be obtained.
* History of systemic diseases like hypertension, diabetes, bleeding

disorders, cardiovascular, respiratory disorders and cutaneous disorders will be obtained.

* History of any known drug reactions or present intake of drugs like

 aspirin, warfarin, tamsulosin, xylocaine, immunosuppressants and

 steroids will be taken.

  **2. EXAMINATION**

* 1. **GENERAL PHYSICAL EXAMINATION**
* Pulse **(**rate, rhythm, volume, arrhythmia, synchronicity**)**
* B.P.
* Respiratory rate
* Pallor, icterus, lymphadenopathy, clubbing, JVP, cyanosis and pedal edema.
	1. **SYSTEMIC EXAMINATION**
* Detailed systemic examination will be done with special emphasis on cardiovascular system, respiratory system and any focus of infection in the body will be identified and documented.
	1. **OCULAR** **EXAMINATION**
* Visual acuity assessment (including Perception of light and projection of rays)
* Visual axis (cover/uncover test)
* Lids, Lacrimal sac area (swelling, tenderness, regurgitation test)
* Pupillary responses (Direct reflex, Consensual reflex, RAPD and dilatation response)
* Ocular movements (Ductions and Versions)
* Refraction/BCVA
* **Slit-lamp examination will be done to look for**
* Cornea (any opacities)
* Anterior Chamber (for depth, angle with Van Herrick’s Grading and contents)
* Iris (for synechiae, pigmentation, atrophy, vascularization)
* Pupil (shape, pupillary margin, pseudoexfoliation)
* Response to mydriasis and any sign of uveal inflammation in the anterior segment will be looked for.
* Crystalline Lens (Integrity of the zonules, subluxation and dislocation of the lens of both eyes will be looked for and type of cataract will be documented).

**2.5 FUNDUS EVALUATION** of both eyes (if possible)

**2.6 B-SCAN** Ultrasonography (in case of opaque media)

 **2.7 RETINAL FUNCTION TESTS**

* Maddox Rod
* Two point discrimination test

 **2.8 PREOPERATIVE MEASUREMENTS**

* FBS
* BP
* ECG
* Medical fitness/ PAC will be performed on all patients.

 **2.9 BIOMETRY**

**SRK-T** formula will be used to determine the power of IOL and we will aim for emmetropia in all patients.

* **CONSENT AND PREPARATION OF PATIENT**

  **3. INFORMED CONSENT**

Written informed consent will be obtained in the patient’s own words so that the patient has clear understanding of the risks and benefits of cataract surgery.

 **4. PATIENT PREPARATION**

 **4.1 ONE DAY PRIOR TO SURGERY**

* Xylocaine sensitivity
* Tab Acetazolamide 250 mg 1 HS
* Flurbiprofen eye drops three times and antibiotics one day prior to surgery
* Oral antibiotics (fluoroquinolones) a day prior
* Head bath
* Anxiolytics at bed time
* Topical Moxifloxacin 0.5% , Ofloxacin 0.3% ,6 times a day, at least a day prior.

 **4.2 ON THE DAY OF SURGERY:**

* Dilation with (Tropicamide/Cyclopentolate and Phenylephrine) and Flurbiprofen in the morning three times at an interval of 15 minutes
* Tab Acetazolamide 250 mg 1 in the morning
* I.V. Cannula in place
* Inj. Stemitil 12.5 mg i.m. ½ an hr before breakfast
* Patients on antihypertensive / oral hypoglycemic medication will take morning dose
* Patients on anticoagulants will stop drugs 5 days before surgery
* **ANAESTHESIA AND SURGERY**

 **5. ANAESTHESIA**

* In children, un-cooperative adults and in those allergic to xylocaine, surgery will be done under general anaesthesia.
* Monitoring of the vitals of the patient on the table prior to anaesthesia.
* Peribulbar anaesthesia with (2 % Xylocaine and Adrenaline) and Hyaluronidase 15 units/ml.
* Injection will be given slowly with monitoring of pulse, BP and pulse oximetry.
* Adrenaline will not be used in hypertensive and cardiac patients.

 **6. SURGERY**

 **6.1 ECCE/SICS/PHACO, as planned.**

* Planned incision on the steeper meridian will be given depending on surgeon’s choice.
* IOL, PMMA or Foldable as per availability, technique and surgeons preference
* In case of any complication appropriate measures will be taken to manage it, patient will be informed and management will be documented.

  **7.** **POST OPERATIVE CARE**

* Acetazolamide 250 mg TDS X 1-3 days
* Antibiotics Ofloxacin 200 mg BD X 5 days
* Dressing removed on day one
* Topical steroid 1 hourly X 7 days
* Topical antibiotic 2 hourly X 1 week
* Topical antibiotics will be discontinued after 3 weeks and Steroids will be given in tapering doses for 4-6weeks
* Initially Tropicamide 1% BD for one week
* Treatment may be altered depending on the clinical response
* **FOLLOW UP:**
* Patient will be examined one day after surgery for visual acuity, cornea, anterior chamber contents, incision site and lens.
* All patients will be examined on slit lamp and fundus glow will be seen before discharge
* Next examination will be planned after 7 days or earlier depending upon the condition of the patients
* Final refraction will be given at 3 months