## **Intra-operative Precautions**

- A drop of Beta-dine before starting the surgery.
- Minimal handling of tissues
- Instruments used for extra ocular manipulation not to be used inside eye
- No wick left into anterior chamberuvea/capsule/vitreous and complete removal and formation of anterior chamber with irrigating fluid/Air
- No foreign material to be left in surgical area.

#### **POST OPERATIVE**

- Sub-conjunctival Antibiotics, single Drops of 5% Betadine in the conjunctivital Sac after completion of surgery.
- Systemic antibiotics only if adnexal infections present.
- Topical antibiotics to be given post operatively with anti-inflammatorysteroidal/non steroidal agents.
- Dilating drops once daily to keep pupil mobile.
- Personal hygiene to be emphasized.
- · Avoid dust, smoke and sunlight.
- Wear protective dark glasses outdoors.



- Routine weekly/ if necessary, more frequently postoperative visits should be ensured.
- Frequent instillation of Eye drops to be ensured.

## **Emergency Consultation**

- Excessive pain & Redness.
- Watering/discharge
- Sudden Blurring of vision/Decreased or loss of vision
- Floaters/Flashes
- Excessive photo phobia

#### POINTS TO REMEMBER

# Pre-opeartive, Operative Precautions

- Preoperative antibiotic drops for 24 Hrs.
- Bath for patients/ Head wash/Face wash.
- Special note of eye brow/medial canthus area/nasal area.
- Eye to be washed with BSS and Betadine 5%.
- Sharps Keratomes/blades/needle not to be reused unless sterilization procedure undertaken.
- Intraocular instruments and canulas not be reused if possible unless properly sterilized Disposables wherever possible.
- All Doctors and staff (Medical & Paramedical) should receive formal training in Biomedical waste Management.
- OT to be washed /scrubbed before use and surfaces carbolized.
- A drop of Beta-dine before starting the surgery.

## **Post Operative Precautions**

- Sub-conjunctival Antibiotics, single Drops of 5% Betadine in the conjunctivital Sac after completion of surgery.
- Systemic antibiotics only if adnexal infections present.
- Topical antibiotics to be given post operatively with anti-inflammatory-steroidal/non steroidal agents.
- Personal hygiene to be emphasized.
- Avoid dust, smoke and sunlight.
- Wear protective dark glasses outdoors.
- Routine weekly/ if necessary, more frequently postoperative visits should be ensured.
- Frequent instillation of Eye drops to be ensured.
- Dilating drops once daily to keep pupil mobile.

Cataract formation cannot be prevented by any means. Blindness due to cataract can and must be avoided through timely surgical intervention.



# Pre-operative, Operative and Post operative precautions for Eye surgery





#### **National Programme for Control of Blindness**

Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India Nirman Bhavan, New Delhi - 110 011



Developed in Collaboration with:

**World Health Organisation (WHO)** 

#### **PRE-OPERATIVE PRECAUTIONS**

#### **Preoperative**

General Exam:

Thorough checkup (Physician's referral)

#### **Investigations**

- BP At least 3-4 readings at different timing.
- ECG (especially of cardiac and hypertensive cases).
- Haemogram
- Urine (R/M, Albumin)



#### Check up for systemic illness

- Diabetes
- Chronic Pulmonary Conditions (COPD)
- Hypertension & Cardio vascular Condition
- Renal condition etc.

#### **Ocular Examination**

- Chief complaints and History of the problem.
  Complete ophthalmic examination
- Intraocular pressure
- Syringing Not to be done on day of surgery
- Adnexal infections present to be treated with systemic antibiotics.
- Lid conditions & Sac related such as entropion, trichiasis, and Daryocystitis to be treated first.
- Intraocular surgery to be delayed by at least three weeks after these surgeries.

# IOL Power Calculation (OCULAR Exam)

#### Keratometry

- To be calibrated for each observer
- To be calibrated after 20 cases for single observer
- Calibration at 45 D/7.5 mm Horizontal/Vertical
- Adjust eye piece to make mires coincide





#### **Biometry**

- Calibration before days use
- Test Block 14.5 mm (to check with company)
- Default settings to be used unless indicated
- Formula 22-24mm SRK-T or SRK-II.
- < 22mm H offer Q</li>
- >24 mm Holladay-l
- If the above are not available SRK-T in all patients
- A scan to be repeated if reading of Axial length vary by over 0.3 mm
- Biometry to be repeated completely if variation in IOL power is more than
   1 Dioptre
- IOL to be correlated with refraction in contra lateral eye whenever possible.

# OPERATION THEATRE PREPARATION

- Preoperative antibiotic drops for 24 Hrs.
- Bath for patients/ Head wash/Face wash
- Shaving (if possible)

#### Cleaning & draping

- Spirit and betadine from inwards outwards at least two times.
- Special note of eye brow/medial canthus area/nasal area
- Draping to isolate the eye. Steridrape to be used. (Scurgiwear / Romson's)
- Eye to be washed with BSS and Betadine 5%







#### **Surgical scrubbing**

- To proceed in a methodical manner from distal to proximal
- Hands/Palms/fingers/ Medial, lateral, dorsal, ventral aspects.
- Nail beds to be scrubbed with brush.
- Fore arm-Medial, lateral, anterior, posterior up to beyond elbow.
- · Scrubbing from distal to proxima.
- Hands always above waist and elevated so that water drain away from hand,

# **Operation Theatre Layout**

To be arranged in levels

#### Level-I

- Restricted Entry
- Changing rooms/offices/record keeping
- Shoes/footwear to be removed here and clothes changes

#### Level-II

- Entry only after changing for both patients and staff.
- Caps/masks to be worn.
- Air conditioning must be there (with HEPA Filters).
- Scrub room/gloving and gowning.

#### Level-III

- Sterile area (Separate slippers)
- Entry restricted to minimal staff
- Fumigated areas with Air Lock/AC
- · Ultra-violet light at night if possible
- Floors, walls, surfaces to be scrubbed and carbolised.
- Air conditioning with HEPA filters (Filter optional)

#### Level-IV

- Waste disposal area
- sterilization room

# Instrument maintenance (Under supervision of the Staff Sisters/OT Technician

- Cleaned and washed with Savlon/ soap
- Ultrasonic cleaning
- Examined under magnification for defect/for repair/ packing for sterilization
- No. of sets: Minimum 5 sets (more if volume increases)
- One set to one patient only
- Sharps to be cleaned and Autocloved (ETO sterilisation/Chemical disinfection
- Tubes to be rinsed, air dried, flushed, air injected and then autoclaved.

- Gowning & gloving after scrubbing by **no touch technique** after each case.
- Separate set to be used for all patients.
- Ringer/BSS/irrigating fluid- 0.3cc of Gentamyacinr O.3cc of adrenaline in 500 cc. Vancomycin /Cefazolin in case of high suspicion of post op infection particularly gram +ve or high volume settings.
- Sharps Keratomes/blades/needle not to be reused unless sterilization procedure undertaken.
- Intraocular instruments and canulas not be reused if possible unless properly sterilized Disposables wherever possible

### **Waste Disposal**

All Doctors and staff (Medical & Paramedical) should receive formal training in Biomedical waste Management.

#### **Segregation**

- Sharps to be disposed separately after disinfection with sodium hypochloride.
- Gowning & Gloving after scrubbing by no touch technique after each case.
- Infected material to be handled only by gloved staff.
- OT to be washed /scrubbed before use and surfaces carbolized.
- Fumigation at frequently timed intervals or after an infected case has been done/ large volume cases operated.
- Bi-weekly cultures of the OT to be sent from specified points of the OT.
- Ultraviolet light is recommended for overnight use.
- Infected cases to be done in a separate OT along with other extra ocular surgeries.



