VISION 2020 e-resource

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Outpatient Examination Protocol

Outpatient Examination
(Refraction & Glass Prescription)

Standardised Outpatient Protocols:

The following were standardised outpatient examination procedures, which includes refraction and glass prescription.

History Taking

History should be taken with care and attention and the following points should be attended to in chronological order, although the exact composition will necessarily vary with the patient's particular problem and needs.

1. History of previous treatment
2. History of allergies
3. History of systemic disorders like Hypertension, Diabetes or any other chronic illness
4. History of previous surgeries and injuries, if present.
5. Family history should be elicited in conditions like glaucoma, R.P, etc.,
6. If the doctors are not able to follow the language, he can get the help of nursing staff for translation.
7. If the patient is not clear about his symptoms the doctors can put leading questions and should try to search for the exact cause of illness from history.

8. Doctors should take care about the primary complaint that is given by the patient. The patient does not appreciate even a free laser treatment for PDR if the doctor has not answered a question about watering and photophobia.
9. Don't blame the patients for his delayed consultation. Never find fault with any surgery performed by other doctors, especially the referring doctors.
10. Written reply should be given if the patient is referred.

Vision

1. All new & review patients are checked for preliminary vision once they enter the hospital.
2. Doctors should check the entry of preliminary vision for all cases of injury and medico legal cases. (Especially when seen during non OPD hours)

Refraction

The following steps in refraction are carried out for all patients

1. Note present complaints of the patient with Present Glasses (PG)
2. Check preliminary vision with/without glasses separately for each eye
3. Note the power, IPD and segment of PG (if complaints)
4. Carryout dynamic refraction
5. Do subjective verification of refractive errors; Jackson's cross cylinder whenever necessary

6. Go for 0.25 diopters of subjective accuracy
7. Avoid over correction in Myopia (Duochrome test)
8. If no improvement use pinhole to check for any improvement
9. Check near vision separately for each eye
10. Give correction for near vision according to patient's working distance (occupation)
11. Check vision of both eyes together for eye strain, diplopia and intermediate distance (if there is a high cylinder or anisometropia)
12. Compare present correction with PG and note the patients response in the case sheet and advise accordingly
13. Note down IPD

Cycloplegic Refraction

The following cases are chosen for cycloplegic refraction. (1% Cyclopentolate)

1. All patients below the age of 10 years (0.5% Cyclopentolate < 1 year)
2. All cases of suspected accommodative spasm
3. Presence of squint
4. Patients below the age of 30 years with Manifest hypermetropia.
5. Gross difference between PG and Dynamic refraction
6. Symptomatic patients with or without glasses
7. No improvement in dynamic refraction

8. Extremely non cooperative patients for retinoscopy to attain nearest possible correction

Post Mydriatic Test (PMT)

The following criteria are adopted for PMT

1. Only when dynamic and static refraction show different axis and power
2. Date for PMT varies according to cycloplegic/mydriatic used:
    a. Atropine – after 2 weeks
    b. HA (2%), cyclopent - after 48 to 72 hours
    c. Tropicamide and/or drosyn – after 1 day
3. PMT patients should be seen as early as possible on the subsequent visit.

Guidelines for Prescription of Glasses

1. If the patient has come for presbyopic glasses, prescription is given after dynamic refraction but fundus should be examined after Dilatation.
2. If the patient is not interested in near vision correction, doctor has to avoid giving bifocals.

3. Always ask the occupation of the patient before giving NV correction. Weaver and computer operators may need NV correction at 50 cm. So he needs under corrected near vision glasses. A watch repairer or diamond cutter may need near vision at 20-30 cm, so that he needs extra power in his near vision glasses.

4. In the aphakic patient, it is better to give two separate glasses for reading and distance correction.
5. Always check previous spectacle power and patient's complaints about previous spectacle. This will avoid possible discomforts in the new prescription.
6. Spectacle prescription should be written clearly with IPD measurement and details about the tint and bifocal segments. It should have doctor's signature, date and M.R. number. If the prescription is wrong it will be the institutions responsibility to replace the wrong glass.
7. Ask the patient for symptoms of eyestrain if there is a gross difference in refraction between the two eyes or in the axis of the cylinder.
8. Avoid over correction in myopia.
9. Don't give full correction in high astigmatism.
10. Presbyopic correction should be prescribed in myopia if accepted/needed by the patient.
11. Type of frame and material of lens can be suggested in special cases.

Review for refractive error

1. New young myopes: First visit 6 months and yearly follow up
2. Myopes/Hypermetropes with glasses: Every year
3. Presbyopes: Every year

Tonometric Examination

1. Examination of tension is necessary
    a. For all patients above 40 years
    b. Patients with large cup irrespective of age
    c. Patients with asymmetrical cupping
    d. Glaucoma suspects/family history of Glaucoma
    e. Uveitis cases
    f. All patients posted for intraocular surgery
    g. Known glaucoma patient
    h. Patients with long term use of steroids

2. Tension examination should be avoided in-patients with
    a. Conjunctivitis
    b. Corneal ulcer
    c. Penetrating injuries
    d. Very uncooperative patients

3. Applanation Tonometry is preferred in the following patients:
    a. Glaucoma patients on follow up
    b. All glaucoma suspects
    c. Those who undergone intra-ocular surgeries

Duct Examination

1. Duct examination has to be done for
    a. Patients complaining of watering
    b. Patients under going intraocular surgeries
        d. Patients with corneal ulcer

2. Duct examination is contraindicated in-patients with acute dacryocystitis
3. Duct examination should not be repeated at every visit.
4. Partially free and not free (clear fluids) ducts should be taken up for conjunctival cultures before surgery.

Blood pressure and Urine Sugar

Examination of BP and urine is a must for all patients above the age of 40 and

1. Patients posted for intraocular surgery
2. Patients who are on oral steroids
3. Patients who have renal problems and chronic headache.
4. Patients with past history of Hypertension and Diabetes and also with family history of hypertension and diabetes
5. Patients whose fundus shows vascular changes
6. Patients with recurrent stye

Slit lamp Biomicroscopy

Examination with slit lamp is preferable for all cases and compulsory for

1. Patients with cataract and complicated cataracts (dilated)
2. Corneal problem
3. Intraocular inflammation
4. Injury
5. Postoperative cases
6. Suspected shallow AC
7. Patients with congested eye

Dilatation for fundus examination

1. Dilatation is a must for all patients visiting for the first time.
2. Patients above 40 years, dilatation can be done with Tropicamide plus. If they are hypertensive Plain Tropicamide/cyclogyl should be used.
3. Pupillary dilation should not be advised initially when we find disc pallor, glaucomatous cupping of disc or in any other conditions like RAPD where field charting and colour vision testing will be required.
4. Cases with shallow anterior chamber pupils should not be dilated unless the medical officer sees the patients and also in cases of squint and when contact lens work up has to be done
5. Check muscle balance for young patients with headache, eyestrain before dilatation.
6. All patients should be dilated for fundus examination before posting for cataract surgery.

Cataract / IOL – Do a detail examination

1. Cataracts:
    a) Traumatic
    b) Subluxated
    c) Dislocated lens
    d) Cataract suture removal
    e) Paediatric cataract
    f) Any complication related to cataract surgery
2. When the patient requires an IOL in one eye, the other aphakic eye should be examined for secondary IOL implantation.
3. Cataract patients with glaucoma should receive complete Glaucoma examination
4. Refraction must be done in all cases with immature cataracts
5. When visual loss does not commensurate with the degree of lens change

Investigations before intraocular surgery

For every case selected for surgery, the following examinations must be carried out as a routine.

1. Recording of Intraocular pressure
2. Patency of lacrimal duct by syringing
3. Blood pressure
4. Urine sugar
5. Blood sugar in diabetics

6. Keratometry & Biometry for cases undergoing IOL implantation
7. Conjunctival culture and sensitivity (as indicated in preoperative protocol)
8. ECG and X-rays can be done as and when required.
9. General physician can be consulted when there is concern about the patient's general health.
10. In paediatric cases posted for GA, systemic examination and Hb & RBC count (any other test as per anesthetist preference)
11. Look for septic foci (Dental, ENT, etc.)
12. Look for local infection in the eye (Chalazion, stye, blepheritis, etc.)