Common Eye Conditions
For MO

REF
EYE CARE MANUAL FOR CHOS CHAPTERS 5-8 PAGES 10-21
OBJECTIVES

By the end of the session, participants will

• Describe cataract, refractive error, conjunctivitis and Stye
• List
CATARACT

• Cataract is one of the major reasons for blindness in India. It is also called ‘Safed Motia’ in Hindi

• In cataract the Lens becomes opaque thereby obstructing light from reaching the retina impairing vision

• Mostly an age-related condition (Over 50 years age)
WHO ELSE CAN GET CATARACT?

• Cataract may also be present congenitally in children.

• Cataract can also occur due to other conditions like Diabetes Mellitus (DM) in adults, or

• After an eye injury, inflammation or long-term steroid use.

• Sometimes, people who are younger may also develop Cataract.
## Signs and Symptoms

### Signs
- Greyish white or whitish lenticular opacity on torch light examinations.

### Symptoms
- Cloudy vision/blurring of vision
- Gradual painless progressive diminution of vision in one or both eyes
- Excessive glare
- Double vision in only one eye or
- Seeing multiple images on focusing on one object
- Coloured halos/bright circles around lights
INVESTIGATIONS

- Visual Acuity, Intra Ocular Pressure (IOP)
- Blood Pressure, Random Blood sugar (RBS)
- Prior to Surgery: Electrocardiogram (ECG), Urine routine examination, A-scan, Xylocaine sensitivity test.
HEALTH EDUCATION MESSAGES RELATED TO CATARACT

• Normally seen in elderly people and is a result of ageing. However, it can also occur in younger age groups and in children. Adult persons with diabetes are more likely to develop Cataract at an early age.

• It cannot be cured by putting any eye drops/eye ointment. Cataract can be cured ONLY with eye surgery.

• The eye procedure commonly involves taking out the affected lens from the eye and replacing it with a new artificial lens so that vision can be restored normal.
This procedure for correction of cataract is a safe and commonly done, but only in a recognized hospital with eye specialist. It cannot be done in the Community or at AB/HWCs.

- Under National Programme for Control of Blindness and Visual Impairment (NPCB&VI), Government Eye Hospitals and Non-Governmental Organizations (NGOs) provide free surgeries to affected persons.

- In adults that have cataract due to ageing, both eyes may be affected and treatment may be required for both the eyes.
# COMMON MYTHS AND FACT ABOUT CATARACT

<table>
<thead>
<tr>
<th>MYTHS</th>
<th>FACTS</th>
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<tbody>
<tr>
<td>Cataract can be treated with eye drops</td>
<td>Only surgery can treat cataract.</td>
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<tr>
<td>Cataract surgery is dangerous.</td>
<td>It is one of the safest operations.</td>
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<td>It can take a long time to recover after cataract surgery.</td>
<td>Most of the patients resume normal activity and restore their vision within one month time period.</td>
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<tr>
<td>Cataract is reversible.</td>
<td>No. Once the cataract occurs, it is not reversible and it will progress to reduce vision further.</td>
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<tr>
<td>Cataract surgery can be done only in winter season.</td>
<td>Cataract surgery can be done in any season.</td>
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ROLE OF CHO

1. PUBLIC HEALTH
   - Screening all above 50 years for cataract
   - Screening earlier all diabetic persons,
   - Dispelling myths
   - Medical Fitness certificate from MO-PHC

2. CLINICAL
   - Counselling screened patients for surgery
   - Checking all patients who complain of changing spectacles frequently and still having vision problems
   - Supporting patients post operatively
   - Teaching how to put eye drops and eye ointment

3. MANAGERIAL
   - Maintain list of all vision centres, eye surgeons
   - Linking patient to schemes for free surgeries
   - Documentation and records maintenance
   - Inventory and stock
   - Team building with community, ASHA, MPW/ANM
Referral care pathway for Cataract

Patient presents with complaints of:
diminution of vision, opacity in front of the eyes, coloured halos around light sources, excessive glare

Ask for:
- Onset and progression of vision loss
- Whether associated with pain
- Uni/bilateral loss of vision
- Known case of DM/HTN
- Any other medicine use
- Previous eye surgery

Assess for:
- Age of the patient
- General examination: Blood Pressure, Random Blood Sugar
- Ophthalmic examination:
  i. Check for any uncorrected refractive errors
  ii. Torch examination to look for opacity of lens

Probable case of cataract if:
1. Gradual painless loss of vision
2. Bilateral (although one may be more affected than the other)
3. Age of patient above 50 years
4. Known case of DM/HTN
5. Opacity of lens observed during torch examination.

Refer to MO at AB-HWC-PHC for assessment and medical fitness for cataract surgery. Link the patient to a higher facility with eye surgeon/eye specialist/any near-by eye camp for treatment (in consultation with MO at AB-HWC-PHC).

After treatment at the referral centre (surgery in cases of cataract), patient is referred back to AB-HWC for follow-up.

Follow-up care through AB-HWC-SHC:
Follow-up care through AB- HWC-SHC:

- Supervising/ instructing patient on how to put eye drops/eye ointment in the eye, as prescribed by the surgeon.
- Check for post-operative complication such as watering from the eyes, loss of vision, continued redness and pain in the eye.
- Counsel about: (1) Importance of follow-up visits as advised by surgeon (2) Need for using protective eye wear such as eye shield, dark glasses during day time (3) Procedure of cleaning the eyes and instillation of eye drops/eye ointment (4) Avoid splashing water into the operated eye during face wash/bathing. Head bath can be resumed only after 5 days of the surgery (5) Lifting heavy objects/ exercises should be avoided for 4-6 weeks (6) Avoid applying kajal/any eye make-up for at least 4 weeks (7) Protect operated eye from bright light, TV screen, mobile, computer, dust, smoke, smoke from chullas and jerks (quick, sharp, sudden movement) (8) Not sleep on the same side as the operated eye atleast for one week (9) Warning Symptoms such as increasing redness, pain or decreased vision, needing re-referral to the eye surgeon.

Follow-up at community level through ASHA/MPW/ANM (with support of CHO):

- Visit the patient on Day 1, Day 3 and Day 7 after surgery.
- Check if the patient is able to use the eye drops/eye ointment correctly and has understood the dosage of his medicines.
- Re-enforce the post-operative care and precautions to be undertaken.
- Ask if the patient is suffering from any of the warning symptoms such as increasing redness, pain or decreased vision, needing URGENT referral to the eye surgeon.
1. Eye Care Promotion and identification of cataracts, Surgical extraction with IOL implantation.
2. Refer to an ophthalmologist when a cataract causes functional impairment.
3. Before referral get the workup done for surgical fitness
4. Post operative care and support ..Continuum of care
5. SEEING IS POSSIBLE AFTER SURGERY
6.1 Diminution (Decrease) of Vision

Diminution (decrease) of vision can be due to many reasons. The flow chart below will guide you how to check anybody who complains of diminution (decrease) of vision.

**CANNOT SEE CLEARLY**

Cannot see things close by or read clearly
**NEAR VISION LOSS**

MEASURE DISTANT VISION

BOTH EYES ARE NORMAL

CHECK NEAR VISION

NEAR VISION NORMAL

REASSURE

NEAR VISION ABNORMAL

REFER FOR FURTHER TESTING AND POSSIBLE GLASSES-OA, EYE SPECIALIST/EYE DOCTOR

Cannot see things far away, things are blurred
**DISTANT VISION LOSS**

MEASURE DISTANT VISION

VISION NORMAL IN BOTH EYES

REASSURE

VISION ABNORMAL IN ONE/BOTH EYES

SUDDEN OR GRADUAL LOSS?

SUDDEN LOSS IN ONE/BOTH EYES (with or without pain)

URGENT REFERRAL TO EYE SPECIALIST/EYE DOCTOR

GRADUAL LOSS

REFER FOR FURTHER TESTING AND POSSIBLE GLASSES-OA, EYE SPECIALIST/EYE DOCTOR
Normal Eye

Myopic Eye (Loss of distance vision)

Hypermetropic (Loss of near vision)
REFRACTIVE ERRORS CAN BE CORRECTED WITH SPECTACLES

<table>
<thead>
<tr>
<th>S.N O</th>
<th>REFRACTIVE ERRORS</th>
<th>MEANING</th>
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<tbody>
<tr>
<td>1</td>
<td>NEAR SIGHTEDNESS</td>
<td>The person is able to view near objects clearly but distant objects are not clear. It occurs both in children (most commonly in 10-18 years of age) and adults. Usually, little changes occur after 20 years of age</td>
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<tr>
<td>2</td>
<td>FAR SIGHTEDNESS</td>
<td>The person is able to view far objects clearly but objects seen from nearby are not clear. Far sightedness usually decreases and corrects itself till the child attains 5 years of age. However, it remains in some people till later age.</td>
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<tr>
<td>3</td>
<td>ASTIGMATISM</td>
<td>The images are blurred and distorted. The complaints are similar to patients with other type of refractive errors. In children, this condition requires early referral to the nearest AB-HWC with information to the RBSK team for follow-up.</td>
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<tr>
<td>4</td>
<td>PRESBYOPIA</td>
<td>This is a condition that is age related and occurs in almost everybody by the age of 40 years. It occurs because with old age there is degenerative changes (loss of function) in the eyes and the eyes lose the ability to accommodate (focus on near objects). In this case, the person is not able to view near objects properly and finds difficulty in reading.</td>
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REFRACTIVE ERRORS IN CHILDREN

**Difficulty in seeing distant vision in a child due to Refractive Error**

3. The child hits into things or drops things.
4. The child holds reading material or objects too close, turns head to focus.
5. The child frequently complains of headaches, eyestrain, double vision or blurring of vision.
6. The child has watering of eyes.
7. The child is not able to read the blackboard from back benches of the classroom.
8. The child less than one year of age does not follow light or objects.

**Easy to see distant vision by a child with use of spectacles/glasses**

*Source: Dr. Rajendra Prasad Centre for Ophthalmic Sciences*
WHEN SHOULD EYE SIGHT BE CHECKED

- When the child starts going to school at entry level. After that once in a year.

- For children wearing glasses: once every six months.

- For adults: When they turn 40 years, especially for near vision.
SQUINT

• In this condition, both the eyes look in different directions, also referred as ‘crossed eyes’

Squint (Cross Eyes)
Source: Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SYMPTOMS OF PEOPLE WITH REFRACTIVE ERRORS

• Difficulty in seeing distant objects clearly (myopia), difficulty in seeing nearby objects clearly (hypermetropia), far-away and nearby objects look blurry or distorted or difficult for middle-aged and older adults to see things up close.

• Headache/Eye ache or eye pain.

• Tiredness and watering from eyes.

• Constant itching of the eyes.

• Frequently blinking/squeezing eyelids or rubbing of eyes.

• Eyelid swelling.

• Some children may have squint (cross-eyes).

• Recurrent formation of stye in the eye.
MANAGEMENT

• Screening for Refractive Errors/Testing of Vision

**Material Required**

• Snellen’s chart (E chart)

• Space that is well lit and has 6 meters distance available or a 3 meters space with a mirror at the opposite wall from where the chart is placed.

• Measuring tape

• Pen and record card/recording format

• Referral cards
PROCESS

• Ask the person to stand at the distance of 6 meters or 20 feet away from the chart. If there is shortage of space, a mirror can be used and a distance of 3 meters or 10 feet can be recorded.

• If the person normally wears spectacles/glasses to see in the distance, tell them to put their glasses on during the test.

• Ask the person to cover his/her left eye with the palm of their left hand properly and see the chart with right eye. Do not squeeze the eye as it may lead to error in reading, the person should read normally.

• Stand beside the vision chart. The person should speak aloud/point the direction of the open end of the “E” letter of each row beginning from the top.
• Ensure that the person stands straight and does not lean forward.

• The lower most line which the patient is able to read clearly, corresponds to the vision of the patient.

• Now ask the person to cover the right eye properly with the palm of their right hand and repeat the test with the left eye.

• Any patient with a vision < 6/9 (less than) needs to be referred to the Ophthalmic Assistant (OA) at Vision Centre/ Eye Specialist/Eye Doctor at higher health facilities for further evaluation and management. You will undertake the referral. The MO must be informed regarding any referral made for identified cases to the health facilities. Maintain a list of referrals and ensure follow-up of these individuals.
Individuals who are not able to read the top most letter of the Snellen chart, for them, the finger counting method should be undertaken for both eyes separately to see at which distance the patient can count fingers.

- Record the findings.
TO MEASURE NEAR VISION USING NEAR VISION CARD/CHART

Materials Required

- Near Vision card/chart
- Space that is well lit
- Measuring tape
- Pen and record card/recording format
- Referral cards
Undertake the near vision test in adults of 40 years of age.

1. Make the individual sit upright in a well-illuminated room.

2. Place the near vision card/chart at a distance of 35 cm from the individual.

3. Ask the individual to close one eye and start reading the alphabet from the top line moving downwards. The lowermost readable line is the near vision of the patient.

4. The individuals who cannot read N 12 line or below in the chart will be referred by you to the Ophthalmic Assistant at the Vision Centre for further assessment/higher health centers (MO to be informed regarding the referral).
ROLE OF CHO FOR REFRACTIVE ERRORS

PUBLIC HEALTH

1. Screening all children – supporting RSBK
   - Reducing stigma against using spectacles
   - Nutrition education, Care of eyes (no TV etc)
   - Annual screening of all the adult community members

CLINICAL

2. Counselling screened patients for surgery
   - Checking all patients having vision problems using Snellen’s chart, near vision card, finger counting
   - Follow-up counselling
   - Supporting patients to wear specs and post operatively
   - Teaching how to wear spectacles, put eye drops and eye ointment

MANAGERIAL

3. Maintain list of all vision centres, eye surgeons and OAs
   - Linking patient to schemes for free specs
   - Documentation and records maintenance
   - Inventory and stock
   - Team building with community, ASHA, MPW/ANM
ASHA identifies a case using CBAC, finger counting method and the 6/18 E-chart and refers to AB-HWC-SHC OR the Patient himself presents at AB-HWC-SHC with complains of inability to read/see distant / near objects clearly

Screen for refractive errors

- Visual Acuity > 6/18
- Visual acuity <6/18

Refer to Vision centre/ Eye specialist for further evaluation and management

Check if:
- Dimness of vision is sudden,
- There is any obvious signs of trauma, local opthalmic infections

Immediately refer to Eye specialist for further evaluation and management
Follow-up care at AB-HWC-SHC through CHO (MPW/ANM to also provide support):

(1) Check if there is improvement in the vision of the patient using the prescribed glasses.

(2) Counsel the patient about:

- Ask if the patient is having any difficulty in using the glasses and encourage constant, regular use of eye glasses.
- To report back to the AB-HWC-SHC in case of symptoms such as continued redness, watering, eye fatigue, diminished vision following the use of spectacles.
- Eating Vit. A rich food items.
- Simple eye exercises to reduce eyestrain (20-20-20 rule): Every 20 minutes, look away about 20 feet in front of you for 20 seconds
- Limiting the use of television /mobile phones, computer and other electronic items as much as possible.
Follow-up care in the Community through ASHAs/MPW/ANM (with support of CHO):

- Update the patient’s details in the register of blind and visually impaired individuals in their area.

- Visit the patient at least once and ask if there is improvement in the vision and if there are symptoms such as continued redness, watering, eye fatigue, diminished vision following the use of glasses, needing a referral.

- Counsel the patient about proper eye care, Vit. A rich diet, need for constant use of glasses and regular follow-up
Foreign body in eye (dust, pollen, etc.), eye injuries, trachoma, hay fever, glaucoma, corneal ulcer, .......and CONJUNCTIVITIS
Remember- Not every Red Eye is Conjunctivitis.

Depending on the type of aetiology, it is further classified as:

A) Infective:
   - Bacterial Conjunctivitis:
     Staphylococci, Streptococci, Pneumococci, Gonococci.
   - Viral Conjunctivitis:
     Herpes simplex, Herpes Zoster, Adenovirus, etc.

B) Allergic conjunctivitis (more common):
   - Allergic reactions to dust, pollen, etc.
SYMPTOMS OF CONJUNCTIVITIS

- Acute redness of eyes
- Foreign body sensation in eyes
- Watering from eyes
- Photophobia (intolerance to light)

Certain signs can point towards the aetiology:

- Purulent discharge with matting of eye lashes due to discharge with photophobia: Probable case of Bacterial Conjunctivitis.
- Watery discharge with pre-auricular lymphadenopathy and swollen lids: Probable case of Viral conjunctivitis.
- Slightly muco-purulent discharge, recurrent episodes without much photophobia: Probable case of Allergic conjunctivitis.
# Role of CHO for Refractive Errors

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<td>• Health Promotion activities- informing all community members to maintain good personal hygiene, good eye hygiene, preventive measures and to report immediately for excessive watering and redness in the eye.</td>
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<tr>
<td>• Identification and diagnosis of conjunctivitis</td>
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<tr>
<td>• Checking all patients having red eyes and referral</td>
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<tr>
<td>• Follow-up counselling</td>
</tr>
<tr>
<td>• Supporting patients to put prescribed drops and ointment</td>
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<td>• Personal care and prevention of infection</td>
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Approach to a patient with Conjunctivitis

ASHA identifies a case and refers to AB-HWC-SHC / Patient presents with a primary complain of Eye Flu to the AB-HWC-SHC

**Ask for:**
- Onset, duration and progression of disease
- Uni/bi-lateral
- Painful/ painless
- Discharge
- Diminution of vision/ loss of vision
- Any h/o trauma, foreign body

**Look for:**
- Size of the Pupil
- Pupillary light response
- Discharge, redness, tenderness in eye

**Insidious onset with slow progression**
- Copious amount of discharge
- No diminution of vision
- Mild to moderate pain
- Normal pupil size, pupillary response and intra-ocular pressure

**Rapid progression**
- No discharge
- Blurring of vision
- Moderate to severe pain
- Abnormal pupil size, pupillary response and intra-ocular pressure

Probable case of conjunctivitis

Refer to MO/ Vision Centre for further evaluation and management

Refer to Eye specialist/Eye Doctor further evaluation and management

Relief obtained

Relief not obtained
Follow-up care services at AB- HWC-SHC through CHO:

1. Ensuring compliance to the treatment and f/u visit advised.
2. Counsel about:
   - Importance of hand washing after touching the eyes.
   - Avoiding sharing of handkerchief, towels, napkins, pillows etc.
   - Avoid use of steroids (both topical and systemic) / indigenous medicines.
   - Us of antibiotic eye drops in daytime and antibiotic eye ointment in night time as prescribed by the Medical Doctor except in Allergic conjunctivitis.
   - Seeking prompt treatment for other similar cases in family/ neighbourhood.
   - Revisit the Eye specialist/Eye doctor if the symptoms are not resolving/worsening within a period of 3-4 days.

Follow-up care services at Community through ASHA/MPW/ANM (with support of CHO):

1. Contact the patient after 3-5 days of treatment and check if the patient is compliant to the treatment advised and whether symptoms are improving. Encourage the patient to revisit the specialist in case of no improvement.
2. Screen others in the family, especially children, for similar complaints.
3. Counsel for maintenance of hand hygiene and avoiding sharing of towels, handkerchiefs, etc.
When a gland in or on the eyelid becomes inflamed due to blockage. This can happen due to poor hygiene or dust particles blocking the opening of the gland.
8.1 What is a Stye?

A stye is like a pimple on the eyelid as the result of a blocked gland. The medical name for stye is hordeolum. There are two types of swellings on the eyelid: stye (hordeolum) and chalazion. Each has different causes and treatments.

A hordeolum (Stye) is an acute inflammation of the sweat glands found in the skin of the lid and base of the eyelashes, or one of the small sebaceous glands found at the base of the eyelashes. It is a painful condition.

A chalazion is a blockage of a meibomian gland, which is a special oil gland (sebaceous) unique to the eyelids. Unlike a stye, a chalazion is usually not painful and is not caused by a bacterial infection. Instead, a chalazion occurs when the opening of the oil-producing glands in the eyelid becomes clogged. Treatment for both conditions also is different.

Source: Aravind Eye Hospital, Madurai
SIGNS AND SYMPTOMS OF STYE

• Feeling of a foreign body sensation in the eye (particularly with blinking).
• Pressure on the eye.
• Painful red bump.
• May also be blurred vision if thick sebum or pus from within the stye spreads over the eye's surface.
• Presence of a lump (like a pimple) on the edge of the eyelid.
• Redness and swelling of the skin.
• May be thick discharge or crusting on the lids and lashes.
• Tears can also be produced in response to irritation.
TREATMENT OF STYE

- Application of frequent dry warm (not too hot) compresses several times a day.
- Plucking of the involved cilium (eyelash) helps sometimes to hasten the healing.
- A simple pain reliever can also be given.
- There is no role of oral antibiotics in the treatment of StyelChalazion.
• If there is severe burning, discharge, and redness that interferes with vision, you will refer to the Medical Officer at AB-HWC-PHC for further care.

• If it is a chalazion, it has to be incised and drained by an Eye Surgeon. Antibiotic eye drops as prescribed by the Medical Doctor may be required for styes.
PREVENTION OF STYE

1. The most effective method of prevention is to keep the eyelids and eyelashes clean.

2. Dry and warm compresses on a daily basis on the stye at the first sign of irritation in the eyelid can prevent it from getting worse.

3. Following general eye health and hygienic measures.

4. In children with styes, closely follow-up as it can spread fast and become dangerous.

5. If there is formation of recurrent styes in individuals, check for Diabetes Mellitus and/or Refractive Errors. Refer to Medical Officer at AB-HWC-PHC for further check-up if required.
ROLE OF CHO FOR STYE

**PUBLIC HEALTH**
- Health Promotion activities- informing all community members to maintain good personal hygiene, good eye hygiene, preventive measures and to report immediately Stye.

**CLINICAL**
- Identification and diagnosis of stye
- Giving warm compresses
- Follow-up counselling
- Supporting patients to put prescribed drops and ointment
- Referring
- Checking for refractive error
- Personal care and prevention of infection
- Teleconsultation if in doubt

**MANAGERIAL**
- Maintain list of all vision centres, eye surgeons and OAs
- Documentation and records maintenance
- Inventory and stock
- Team building with community, ASHA, MPW/ANM
STATE WHETHER TRUE OR FALSE

1. Cataract happens only to old people  **FALSE**

2. A person above 40 years develops presbyopia  **TRUE**

3. All red eyes are because of conjunctivitis  **FALSE**

4. All styes can be managed by the CHO without a referral  **FALSE**

5. The Snellan chart helps measure near sight.  **FALSE**
Thank You