Paediatric Ophthalmology
What to refer & when?

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Aims

Tips for assessing a child's eyes in general practice

Common paediatric ophthalmology symptoms and signs

What needs to be referred and when?

Examining Children's Eyes

Tips & Tricks

Gather as much info before patient enters the room

Engage, smile and make eye contact

Keep up to date with **current movies/characters/**trends that different ages children enjoy - allows you to break the ice and get them on side before the examination

Speak to children in **language they understand**

Ask the child **'Do you know why you here' 'Why are we looking at your eyes'**

Make them your ally in the game of examination!

'Do you want at play a fun game and shine some cool lights in your eyes'

Have someone else do the drops! (nurse)

Common Signs & Symptoms

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Abnormal pupil reaction/ white pupil

Acute eye trauma

Eyelid lumps/bumps

Decreased vision

Droopy eye lid

Squints

Watery eyes

Nystagmus

Red eye

Abnormal pupil reaction & white pupil

Abnormal pupil reaction & white pupil

GP MANAGEMENT

Pre-referral treatment is not recommended

Discuss with Ophthalmology on call

REFERRAL

Urgent
- **asymmetric pupil reactions**
- **white or "glowing pupil"**
- **absence of red reflex**

Semi urgent
- greater than 1mm difference between the eyes
  - May be an associated eyelid droop and lighter iris colouration on the side of the smaller pupil

Routine
- less than 1mm difference

Acute eye trauma

Acute eye trauma
Initial pre-referral work-up

Serious injuries can be disregarded when children present with a painful eye or blurred vision

Threats to vision:
- ruptured globe
- foreign body – (intraocular or deep corneal)
- large hyphaemas (causing acute glaucoma)
- retinal detachment
- corneal burns, (chemical or thermal)
- contact lens-related corneal infections (bacterial keratitis)

Clinical history
- proximity to chemicals or high velocity projectiles
- contact lens use
- presence of pain, foreign body sensation, tearing or photophobia
- visual disturbance – temporary or persisting including flashes or floaters in vision
- eye discharge
- first aid provided

Acute eye trauma

GP MANAGEMENT

Contact Ophthalmology oncall

Immediate treatment should only be given at the direction of the ophthalmology registrar

REFERRAL

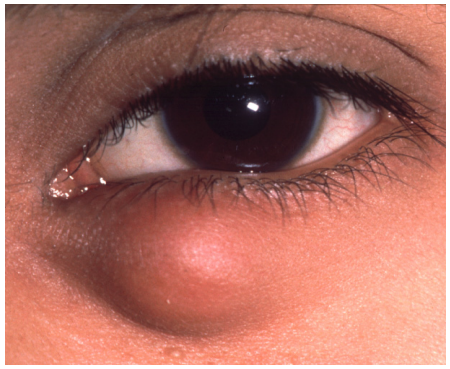
Emergency/ immediate referral
- ruptured globe /penetrating eye injury
- presence of a foreign body
- hyphaemas
- corneal Burns, either chemical or thermal
  - Alkalis penetrate deeper and have a greater potential for serious damage
- contact lens related corneal infections
  - bacterial keratitis
- retinal detachment
- blunt trauma resulting in suspected globe rupture
- eye lid laceration involving eyelid margin

Eyelid lumps/bumps

Eyelid lumps/bumps
Initial pre-referral work-up

Clinical history

Chalazia and styes will often disappear on their own



Eyelid lumps/bumps
GP management

GP MANAGEMENT

Lump in or beneath the skin of the eye lid
- warm compresses (clean, warm washcloth held against closed eyelid) for 2-5 minutes, up to 20 times per day
- most will expand in size and then spontaneously rupture
- Topical antibiotics are of limited value in this situation

Skin around the chalazion/stye appears cellulitic or painful
- chloramphenicol ointment or drops, or oral antibiotics as appropriate
- review in 1-2 days to re-evaluate
- if no response to treatment :URGENT REFERRAL

REFERRAL

Emergency/urgent
- **skin around chalazion/stye appears cellulitic or painful**
- **unresponsive to antibiotic treatment**

Routine
- for excision when chalazion / stye is unresponsive to treatment for more than 3 months

Decreased vision

Decreased vision

GP MANAGEMENT

No GP treatment is recommended

Referrals should include relevant history :
- length of time of vision loss
- Surrounding circumstances
- Accompanying symptoms

For routine/semi-urgent referrals consider referral to optometrist

REFERRAL

Emergency (all ages)
- **acute loss of visual acuity**
- **contact on-call ophthalmology registrar via switch board**

Urgent
- **Ages birth - 2 years: With failure to fix and follow and /or abnormal eye movements**

Semi urgent
- Ages 3-5 years: failed routine screening test
- Ages 5-9 years: failed routine screening test or difference of 2 lines or more between eyes

Routine
- Ages 5-9 years: decreased acuity with developmental delay/ autism
- Ages 9+ years: refer to a local optometrist

Droopy eye lid

Droopy eye lid

GP MANAGEMENT

Neonates
- If all other assessment results are normal reassess in 2 months

REFERRAL

Urgent referral
- **Neonate**
  - **if assessment results are abnormal or ptosis persists past 2 months of age**
- **Older infant and child**
  - **droopy eye lid obstructing vision (moderate - severe)**
  - **sudden onset droopy eye lid**

Semi urgent
- any child with a droopy eye lid that does not obstruct the pupil (mild)

Routine
- older child (aged over 9 years) with history of congenital droopy eye lid

Squints

Squints GP management

GP MANAGEMENT

Most will need referral

Do not refer for infants less than 3 months of age with intermittent/variable turning in of the eye
- this is normal!

REFERRAL

Urgent
- **true acute onset of constant eye turning (esotropia or exotropia) at any age**

Semi urgent
- **intermittent/variable esotropia older than 3 months of age**
- **constant large esotropia all ages**

Routine
- intermittent/constant exotropia of the eye
- constant long standing esotropia in children older than 9 years of age

Watery eyes

Watery eyes
GP management

GP MANAGEMENT

Massage the nasolacrimal sac

Keep the eye clean - wash with salt water as needed

Apply warm compresses (clean, warm washcloth held against closed eyelid for 2-5 minutes, daily

REFERRAL

Emergency
- **neonates with visible dilation of lacrimal sac and bluish discoloration of overlying skin**
- **acutely sticky eye with severe amounts of discharge in patients aged 2 weeks and younger**

Semi urgent
- **severe discharge with associated skin irritation in patients under 12 months of age**

Routine
- symptoms persisting longer than 3 months for patient over 12 months of age

Nystagmus

Nystagmus
Initial pre-referral work-up

Assess for albinism
- white hair
- pale skin
- iris transillumination

Fundus examination

Check visual acuity

Nystagmus
GP management

GP MANAGEMENT

Pre-referral treatment is not recommended

REFERRAL

Urgent
- **sudden or acute onset**
- **present since infancy but absent red reflex**

Semi urgent
- **present since infancy with red reflex present**

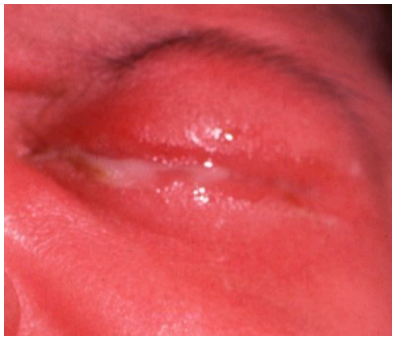
Red eye

Red eye
Initial pre-referral work-up

Carefully inspect the eyelids
- everting to examine the under surface
- check for foreign bodies

Stain with fluorescein to check for corneal abrasions or ulcers

Clinical History
- possibility of ocular trauma
- contact lens use
- presence of pain
- duration of the redness
- presence of itch



Red eye
GP management

GP MANAGEMENT

purulent discharge
- treat with eye toilet and topical chloramphenicol.
- if neonate older than 3 weeks review treatment after 3 days

child complains of itchiness, eyelid swelling and redness, watery discharge
- treat with antihistamines (oral or topical) and artificial tears as needed

REFERRAL

Emergency
- **pain or Photophobia**
- **extensive subconjunctival haemorrhage**
- **reduced vision**
- **corneal opacity**
- **purulent discharge: not settling with treatment**
- **neonate less than 3 weeks old**
- **unilateral eyelid swelling and redness**

Summary

Ophthalmic assessment of children in GP practice should include:

- Visual acuity, ocular motility, pupil reactions and fundus exam
- But the examination can be tricky!
- Key is to **play the game** and grab opportunities as they arise

A lot of common conditions can be managed by the GP without need for ophthalmic referral

If in doubt - speak to ophthalmology oncall for advice and possible referral

- Low threshold for accepting paediatric cases