THE 12th INTERNATIONAL SCIENTIFIC CONFERENCE
THE SOCIETY FOR ACUTE MEDICINE

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Eyes in Acute Medicine

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Aims

- Where and how to refer
- What not to miss
  - What is life or sight threatening
- What needs immediate referral
- What needs urgent treatment +/or referral
- What needs routine referral
- What doesn't need referring/ refer elsewhere
- How to decide

Ophthalmology

- Very high volume service (very young and very old)
- Most number of outpatient attendances at RBH
- Cataract surgery is the commonest operation in NHS (>4000/ year at RBH) and need predicted to double in next 20 years
- Macular injections
- RBH 12 consultants - 550,000+ population

Eye Emergencies

- **Services vary across hospitals:**
  - 24 hour Eye Emergency Departments
    - (Moorfields sees >100,000 / year)
  - On call
  - Closed out of hours
  - PEARS/MECS in community
- **Seen in:**
  - Walk in Eye Emergency Departments
  - Triaged EEDs or acute clinics
  - Within general clinics

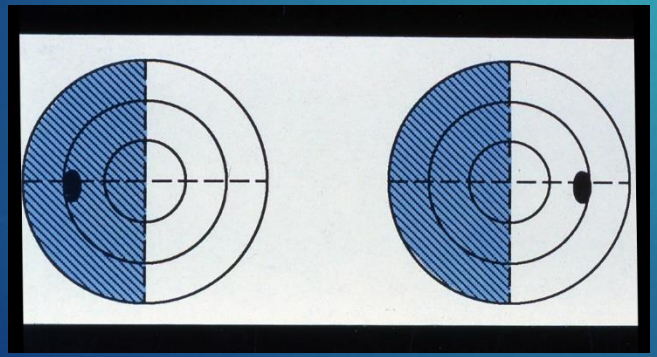
BEECS
British Emergency Eye Care Society

Teaching point 1 – where and how to refer

- Find out what your hospital provides
- Where to refer if no out of hours cover
- How to refer (NB EPRs)
- Make friends with your Eye Emergency colleagues
- Don’t send sick patients to the Eye ED

How to refer - History of presenting complaint

- **Loss of vision**
  - complete,
  - partial
  - uni or binocular (NB nasal field loss), blurring, greying, coming and going



History

- **Onset** : - sudden, gradual, woke up with, intermittent
- **Pain**: -constant / intermittent
  -foreign body sensation, gritty, dry
  -aching, gnawing pain, frontal/brow/temporal
  -keeping awake at night, relieved by analgesia/ drops

History cont.

- **Double vision**: -'seeing 2 of things', side by side, vertical or at an angle
  - monocular (still there when close one eye)
  binocular
- **Headache**: - above eye or brow, on waking, temporal
- **Other symptoms**: - vomiting, jaw claudication, problems swallowing, muscle weakness

History cont.

- **Past medical history**

- **Drug history** including
  -anticholinergics(pupil dilation) eg tricyclics, antispasmodics, antihistamines, antipsychotics(AACG)
  -topiramate (AACG)
  -Fosamax (irits)
  -anticoagulants
  -Minocycline (IIH)
  -eye drops

- **Past ophthalmic history** including:
  - recent surgery**
  - previous surgery
  - ongoing treatment / waiting list
  - contact lens wear*

Learning point

- **History of intraocular surgery < 2 weeks with
  pain and decreased vision

  = intraocular SEPSIS (**endophthalmitis**)

- requires **IMMEDIATE OPHTHALMIC ATTENTION****

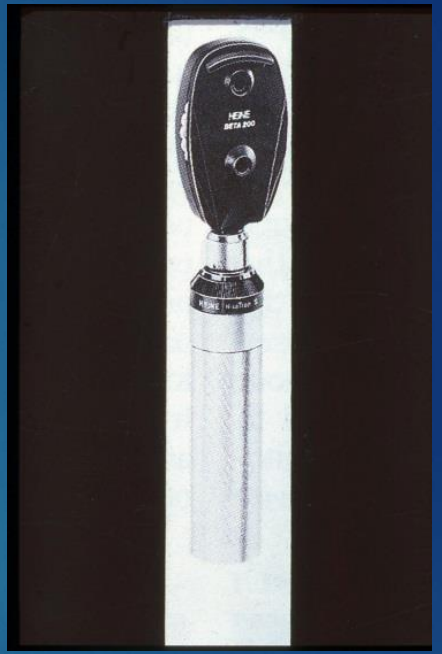
Learning points

- The ophthalmoscope is useful for:
  -pupil reactions
  -red reflex
  -as a magnifier to examine the front of the eye
  -for fundoscopy

- Use local anaesthetic drops to examine if the eye is sore

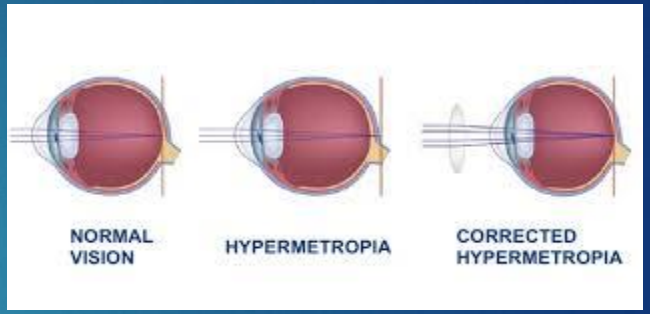
- Do not be afraid to dilate the pupils with tropicamide 1%

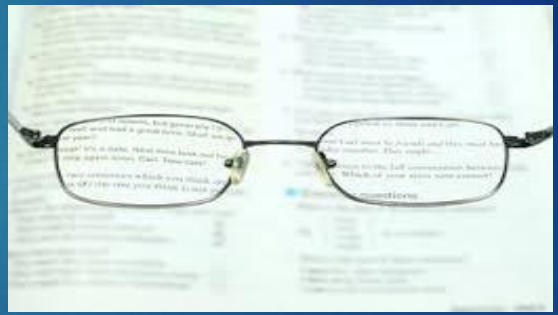
- Describe what you see rather than using unfamiliar terms



Hypermetropia

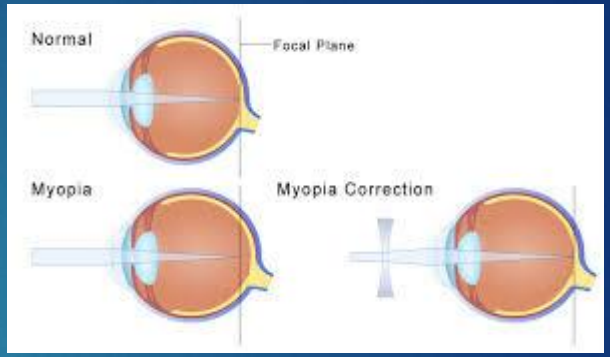
- Long sighted
- Can't see well at near without glasses.
- + prescription



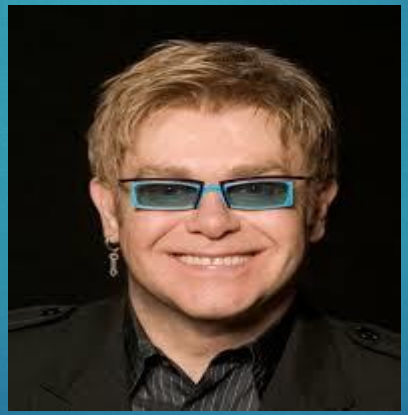


Small eyes = **risk of angle closure glaucoma**

Myopia



- Short sight
- Can't see in distance without correction
- Minus prescription > 5 = high myopia



- Large eyes = **risk of retinal detachment**

Herpes zoster ophthalmicius (shingles)

Examine face and eyelids

Lagophthalmos in VII n palsy

Lid swelling in allergy/preseptal/orbital cellulitits

Bilateral proptosis in thyroid orbitopathy

Circumlimbal injection –intraocular cause eg iritis

Red in fornix - conjunctivitis

Look for distribution of redness

Describe any discharge

Papillae on upper lid conjunctivia- allergy

Corkscrew vessels in cavernous sinus fistua

Learning point

- Don’t give local anaesthetic or steroid drops to take away

Dendritic ulcer (HSV)

Amoeboid ulcer

Learning point –to dilate or not? Angle closure glaucoma

- In hypermetropic eyes
- Very unlikely in eyes that have had cataract surgery
- Warn patients who you dilate, about the symptoms
- Eyeball feels hard

- **Treat:**
  - Lie patient flat on back
  - Pilocarpine drops 4%-1% both eyes
  - Acetazolamide 500mg iv
  -Yag laser peripheral iridotomy

Fundoscopy
Examine disc, macula then periphery if possible

Peripheral vasculitis in SLE

fibrinoplatelet embolus – branch retinal artery occlusion

Learning point

- Retinal detachments are commoner in myopes
- They are rarely operated on out of hours

What not to miss

- **Life threatening:**
  -sepsis (cellulitis, cavernous sinus thrombosis)
  -III nerve palsy

- **Sight-threatening:**
  -Endophthalmitis (immediate referral)
  -Giant cell arteritis (treat)
  -Central retinal artery occlusion within 4 hours
  -Acute angle closure glaucoma - urgent
  -Retina detachment - moderately urgent

Urgent referral

- Uveitis
- Flashing lights with floaters – unilateral
- Bilateral disc swelling with no neurological symptoms
- Horners?
- Corneal ulcers esp contact lenses wearers

Outpatient Referral

- Symptoms > 2 weeks
- Vein occlusion
- Preproliferative diabetic retinopathy
- Autoimmune diseases without acute vision loss of pain
- Thyroid orbitopathy with no acute vision loss
- Severe dry eye
- VI n palsy

Community/GP/pharmacy

- **Dry eyes**
  - use hyaluronic acid-based drops eg Hyloforte, Clinitas Multi); are preservative free
  VitAPos ointment more user-friendly than lacrilube
  Warm paraffin-based ointments before use
  Viscotears toxic to cornea > QDS

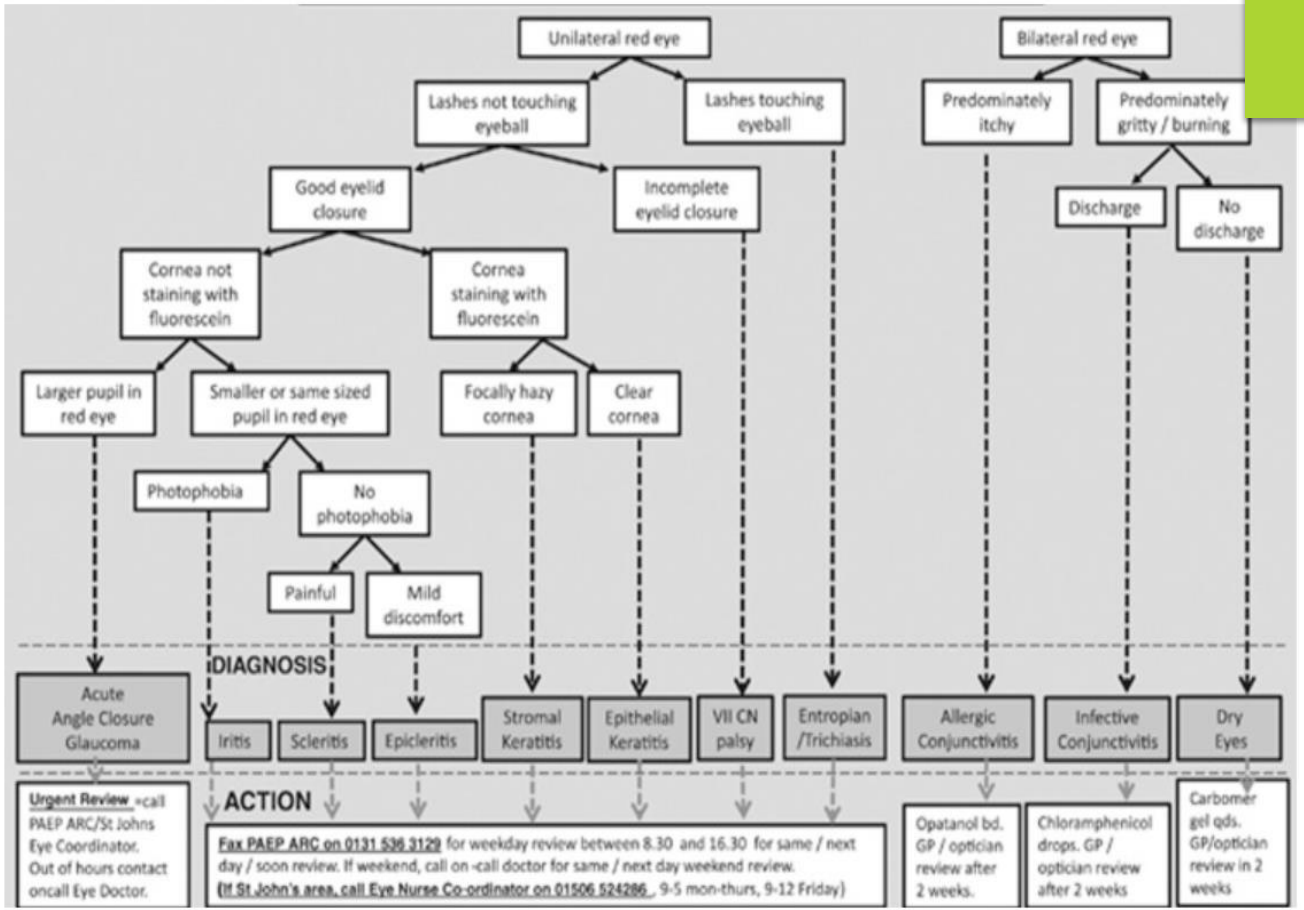
- Blepharitis
- Conjunctivitis
- Watery eyes

Refer elsewhere

- Headaches
- Bilateral field loss/ visual disturbance
- Giant cell arteritis with no visual symptoms

Edinburgh red eye algorithm

Eye (Lond). 2015 May;29(5):619-24.. **The accuracy of the Edinburgh Red Eye Diagnostic Algorithm.** Timlin H[1], Butler L[1], Wright M



Edinburgh visual loss algorithm

Eye (Lond). 2015 Nov;29(11):1483-8.

The accuracy of the Edinburgh visual loss diagnostic algorithm.

Goudie C[1], Khan A[1], Lowe C[2], Wright M[1,2]

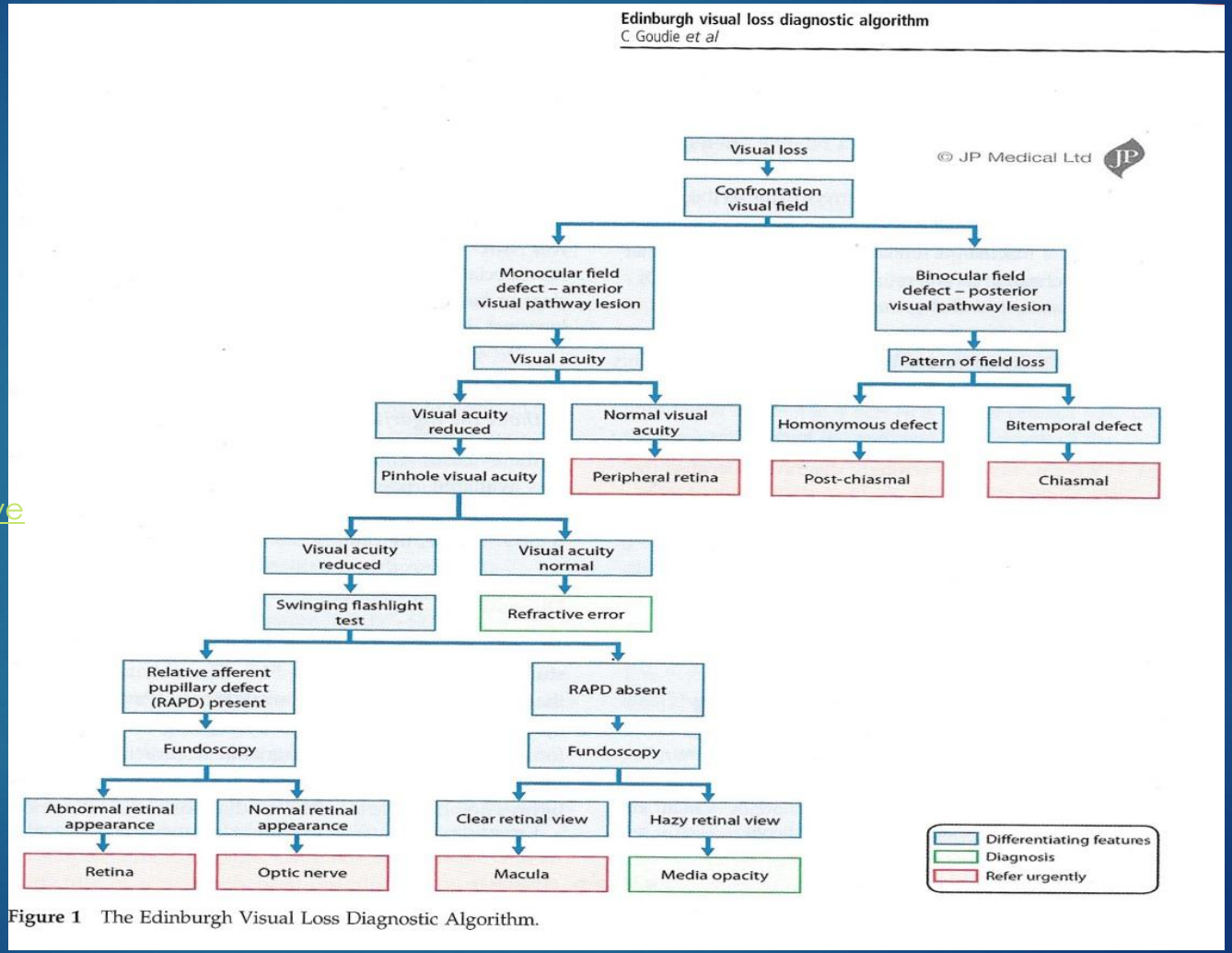


Figure 1 The Edinburgh Visual Loss Diagnostic Algorithm.

Edinburgh Double vision algorithm

Eye (Lond). 2016 Jun; 30(6): 812–816

The accuracy of the Edinburgh diplopia diagnostic algorithm

L Butler,[1] T Yap,[1] and M Wright[1,*]