Eye Accident & Emergency

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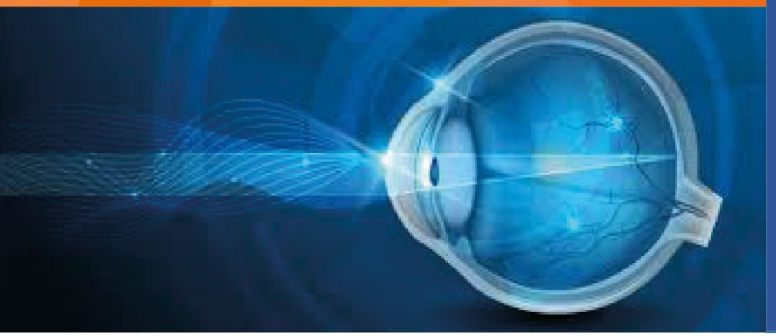

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Case Scenario Links

Eye Accident and Emergency

- Acute or chronic red eye (Oph01)
- Acute trauma to the eye (Oph02)
- Child with red swelling around one eye (Oph10)
- Diplopia (Oph06)
- Pupil abnormality (Oph08)
- Sudden loss of vision and headache (Oph05)
- Sudden painless loss of vision (Oph04)
- Headache, morning stiffness and shoulder pain (Rh06)

Introduction to Eye A&E

Topics covered in this session:

1. Overview of history taking
2. Examination basics
3. Common conditions presenting to A&E
4. Sight threatening conditions
5. Life threatening conditions

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The History

Specific considerations for ophthalmic history:

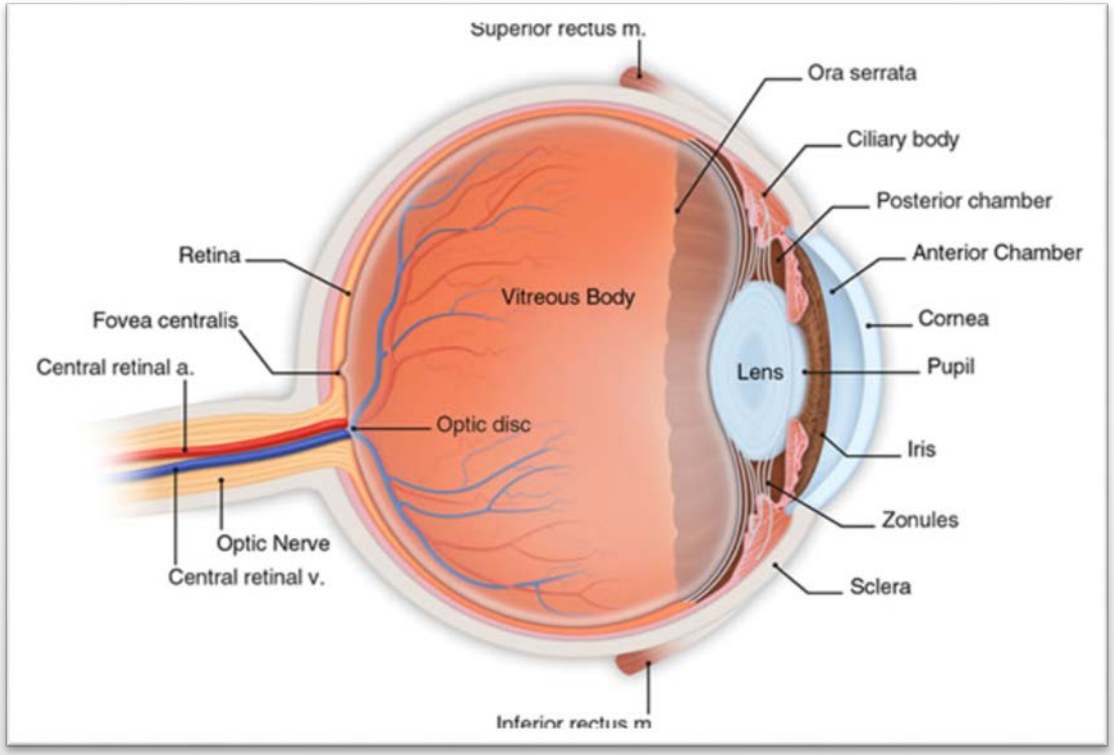
- Trauma (High speed, metal)
- Chemical (acid/alkaline)
- Light (U.V./I.R)
- No precipitating event

Lens

Examination Basics

A systematic approach is essential to not miss important signs

Anatomical approach commonly used and easy to remember



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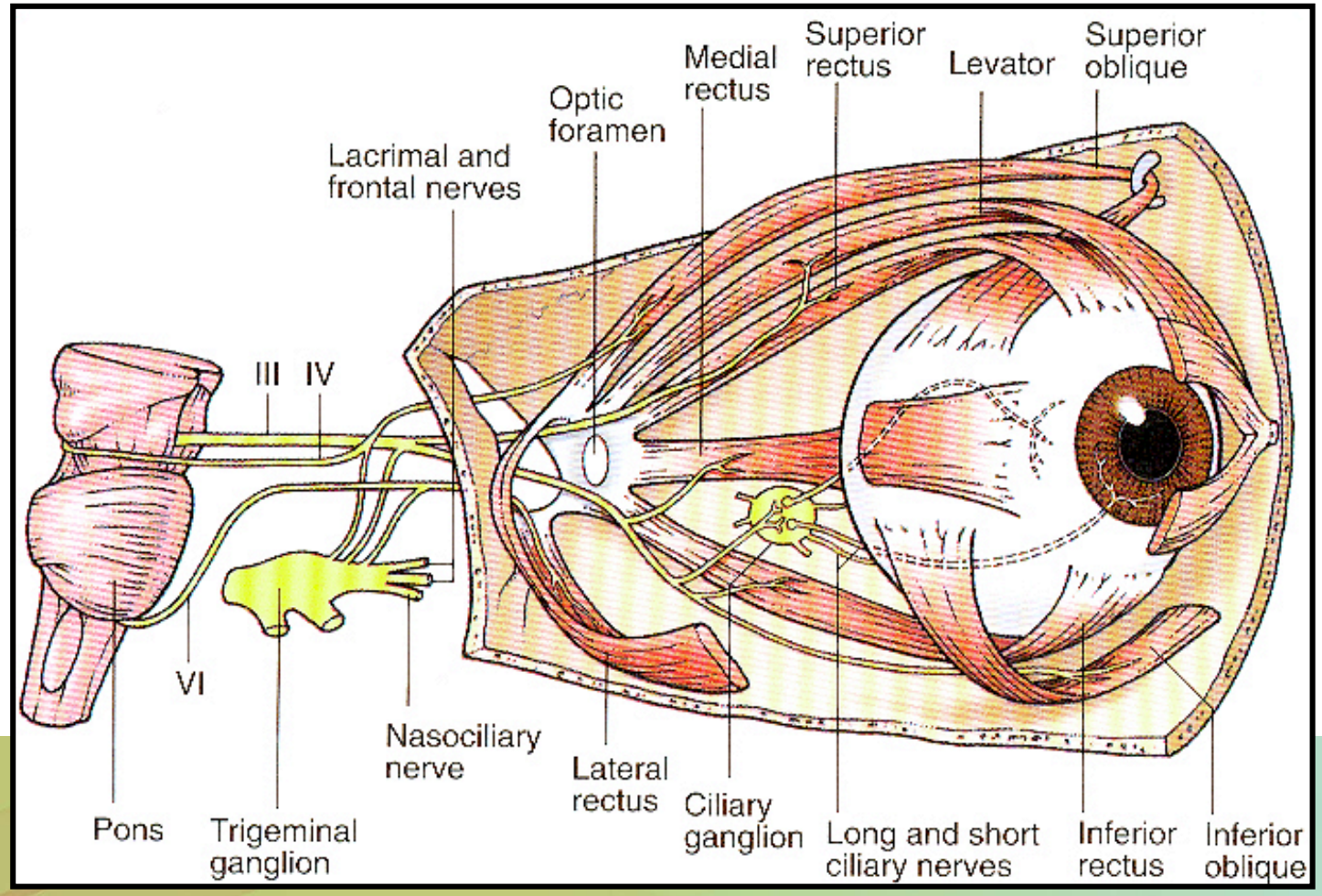
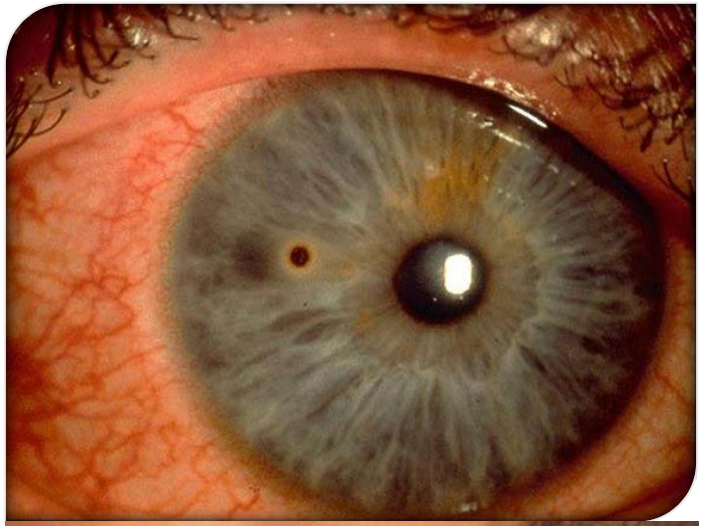
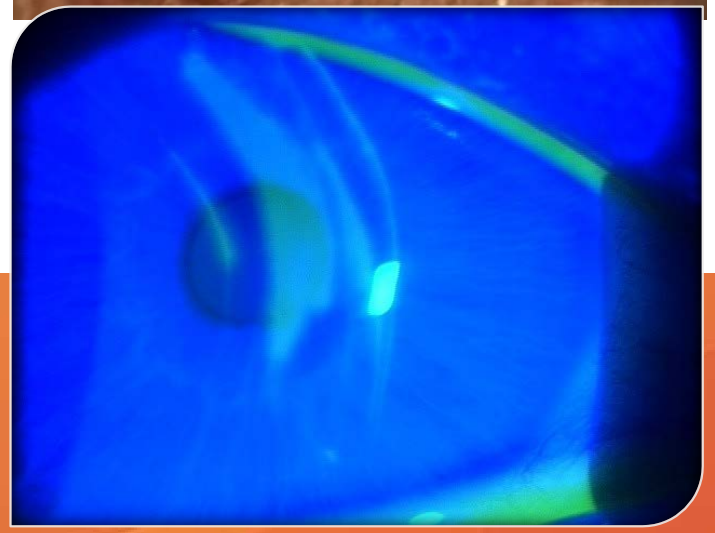
Anatomical Approach to Exam

- Visual acuity (VA)
- Skin/Lids
- Conjunctiva
- Cornea
- Anterior chamber
- Lens
- Vitreous
- Macula/Retina
- Optic nerve
- Orbit/bone
- Neurological



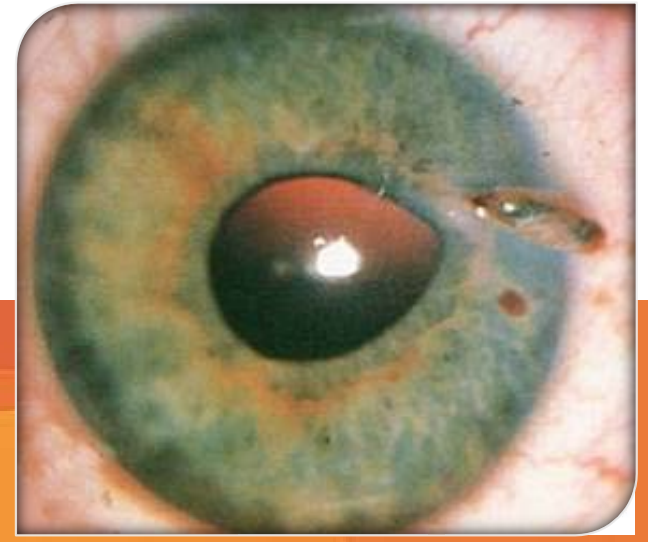


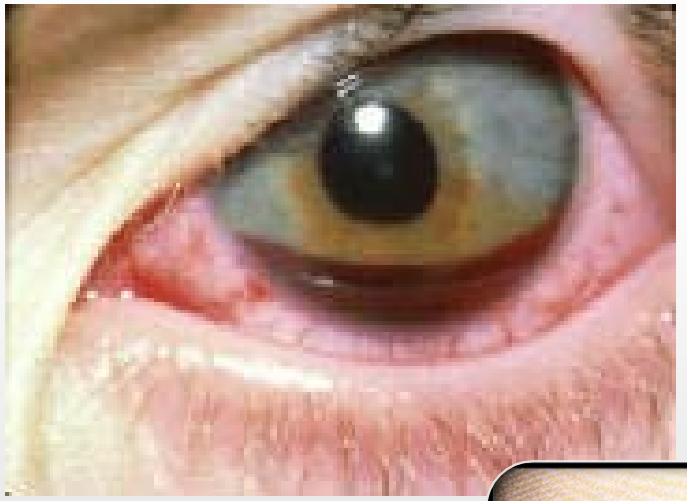


Common A&E Problems

- GP referral
- Grinding metal 2/7 ago
- Eye red, irritated and sore
- Flourescein staining showing “scratches” on cornea
- What important features must you ascertain from the history?
- What do you examine first?

High velocity and no safety glasses are risk factors for penetrating eye injury and intraocular foreign body – need to exclude with careful examination





Common A&E Problems:

history of trauma and examination shows…

Self referral: playing squash yesterday and hit in right eye with ball.

"Blurry" vision since

VA R 6/48, 6/30ph

What important features must you ascertain from the history?

What must you check on exam?

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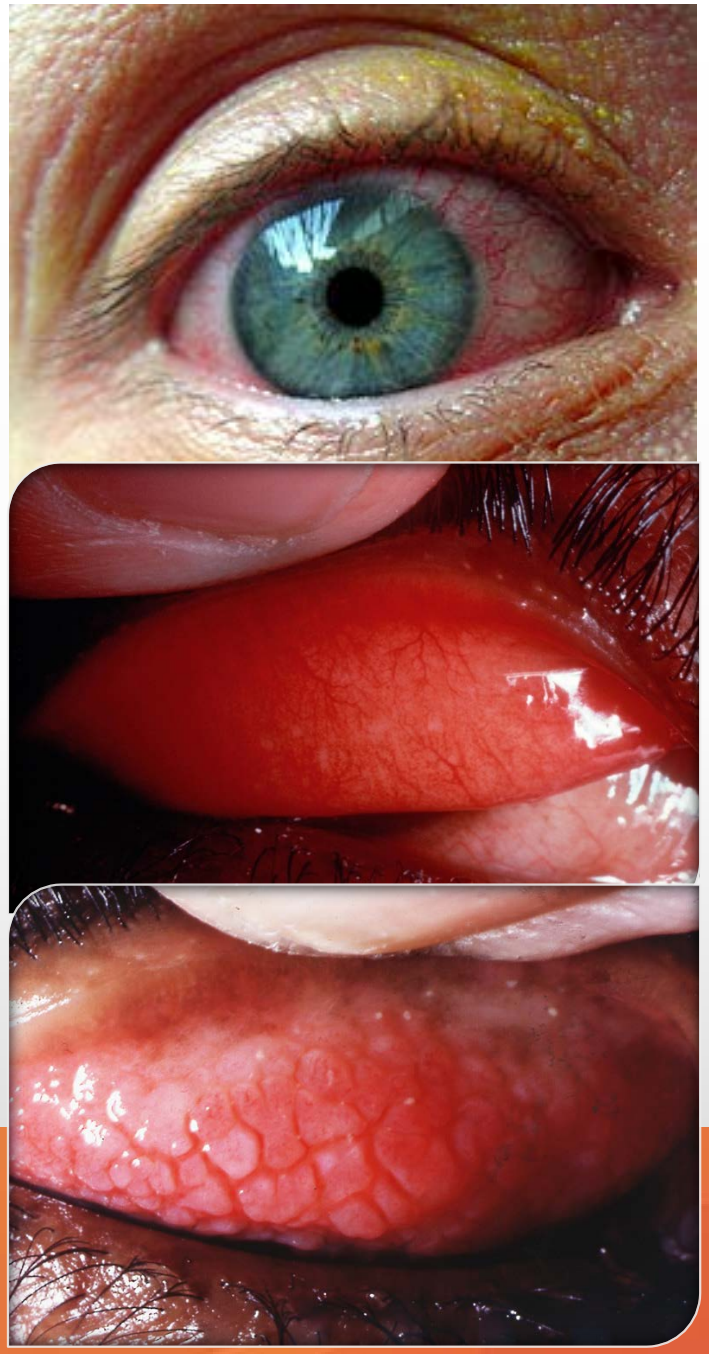

Common A&E problems:

red eyes, lids and cornea

- GP referral with acute red eyes 7/7
- No improvement with chloramphenicol
- Gritty, itchy eyes, started in RE then LE 2/7 later. VA 6/6, 6/6
- What important features must you ascertain from the history?
- What must you check on exam?
- How can you confirm the diagnosis?
- What treatment is indicated?

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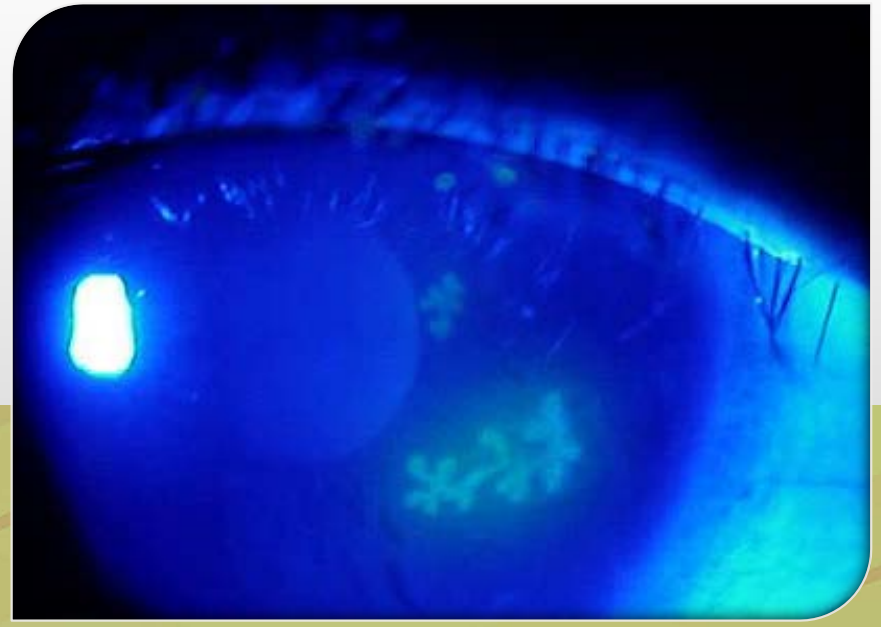

Common A&E problems:

red eyes, lids and cornea

- GP referral with L corneal ulcer that stains with fluorescein, VA L 6/18
- What important features must you ascertain from the history?
- What should you check on exam before instilling flourescein and topical anesthetic?
- How can you confirm the diagnosis and what is your differential for corneal ulcers?

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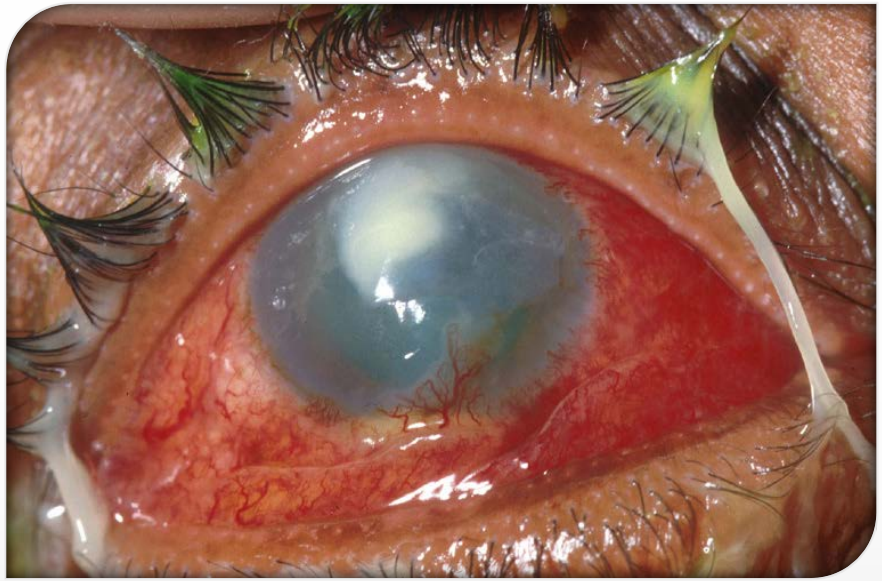
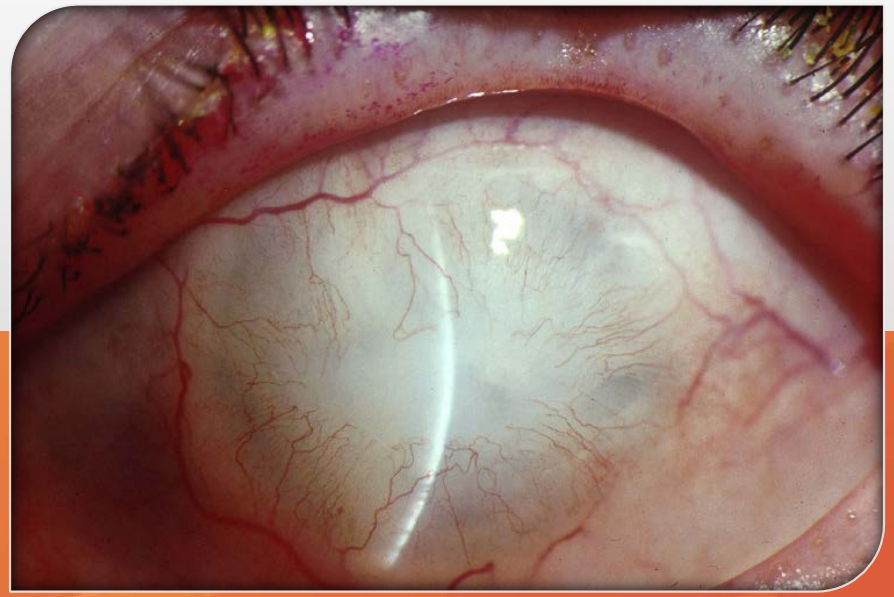
Chemical and thermal /UV injuries





- Referral from Emergency Department with chemical injury to RE 2/7 ago.
- What is the immediate management of chemical injuries that involve the eye?
- What is worse acid or alkali?
- Why is it important to assess the limbus?

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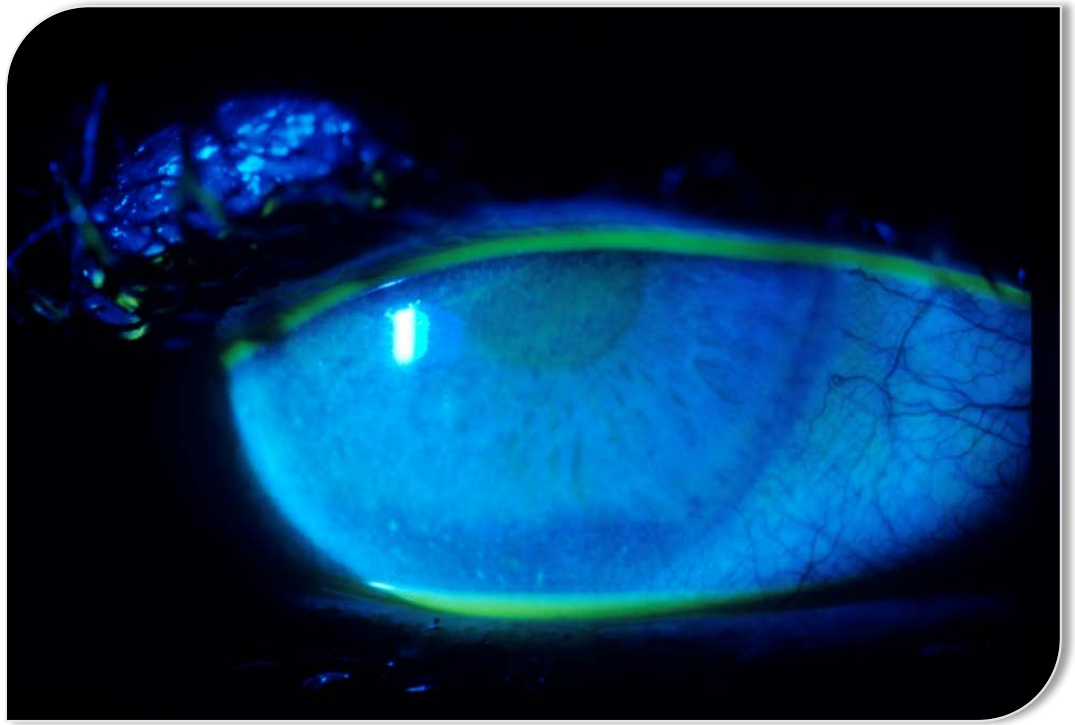
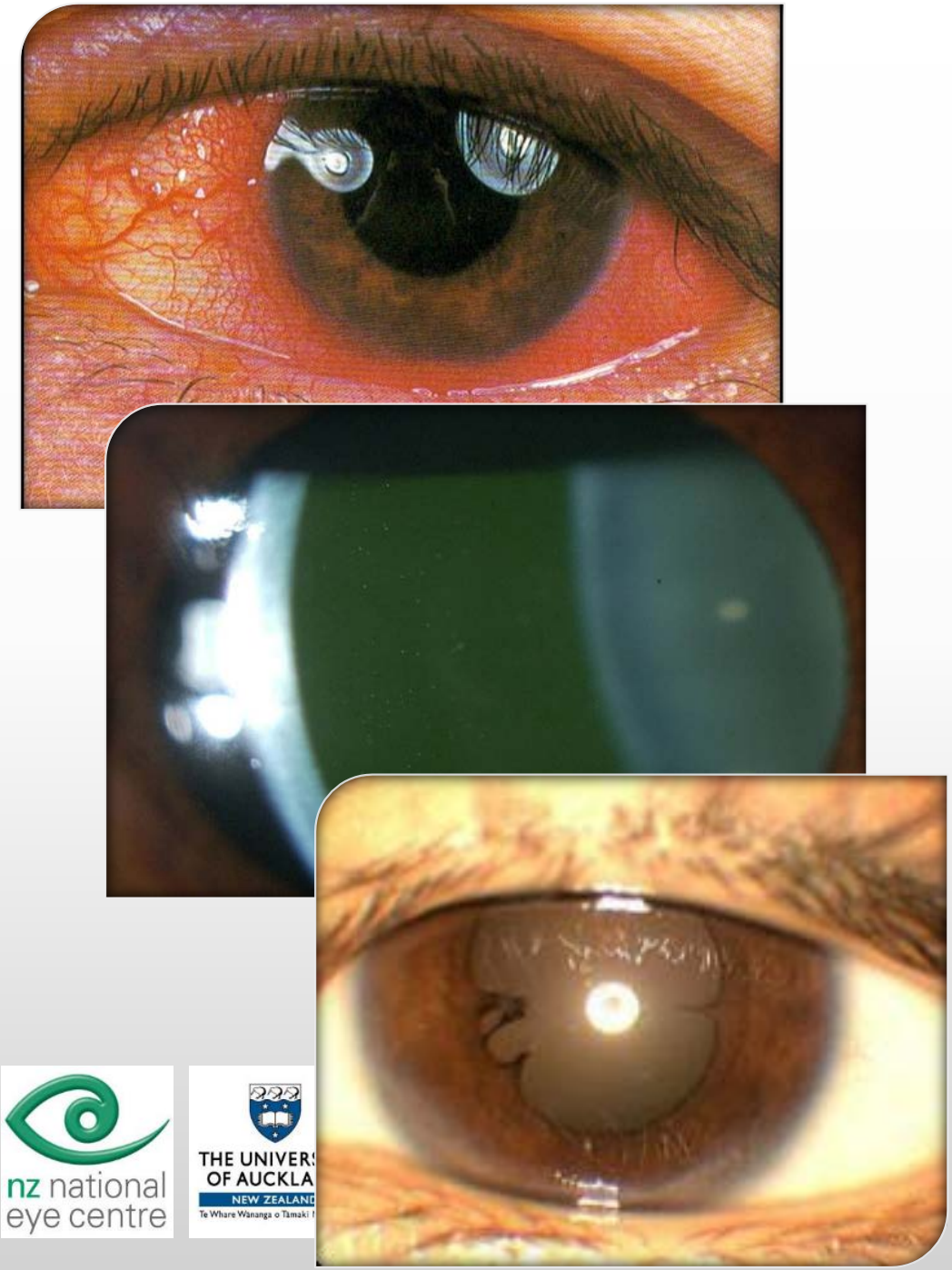
Chemical and thermal /UV injuries



- Grinding and welding a trailer at home 2/7 ago. LE sore and red from 10pm and now sensitive to bright light as well.
- What is the diagnosis?



More red eyes, no precipitating event

- GP referral with viral conjunctivitis and no improvement with chloramphenicol
- Sore red eye for last 3/7. Happened out of the blue.
- Similar episode 12/12 ago but did not seek help, VAL is 6/18
- What features in the history are you interested in?
- What examination findings are consistent with diagnosis?
- What investigations would you like to do, if any, and why?

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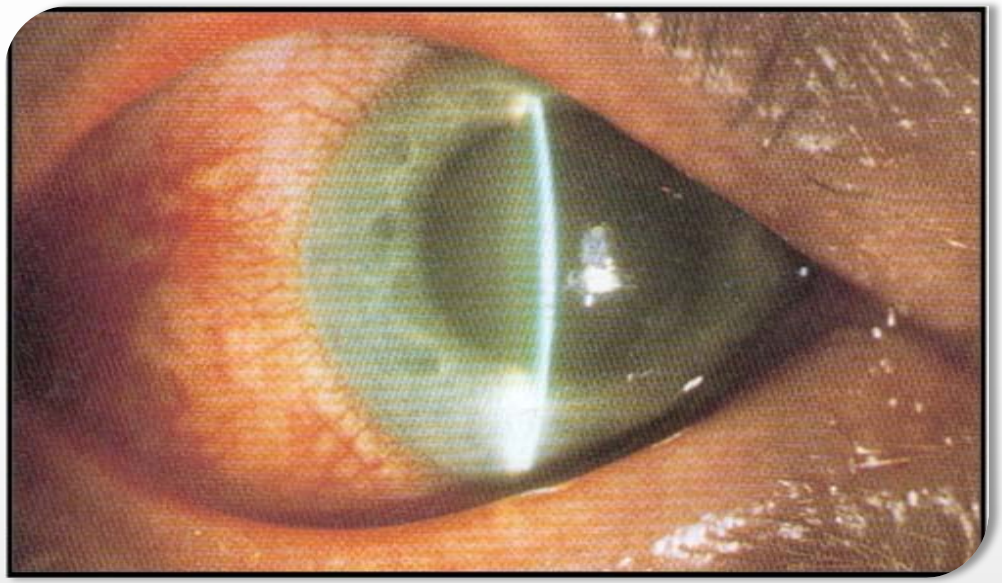
Sight threatening problems (painful)



- GP referral with rapid onset (4/24) painful++ red eye cloudy cornea. VA 6/24
- What are the essential features of the examination you must check?
- Why is the cornea hazy?
- Why is the pupil mid dilated and sluggish?
- Why is this a sight threatening problem that requires urgent management?

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Sudden onset painless loss of vision

Optometry referral –patient woke with painless loss of vision in one eye, VA 6/60, differential diagnosis includes:

- CRVO/BRVO
- CRAO/BRAO
- Retinal Detachment
- Ischaemic optic neuropathy
- Optic neuritis

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Intermittent loss of vision

- GP calls with possible referral. 65 year old man with extensive history of left-sided headaches with general ache around his shoulders, mild weight loss and intermittent episodes of visual loss over past week.

- Any additional questions for GP?

- What is the differential diagnosis?

- What investigations would you like on arrival? What are the expected results in this condition?

- What should you include in your exam and why?

- How can you confirm the diagnosis? What is the treatment and when should it be started?

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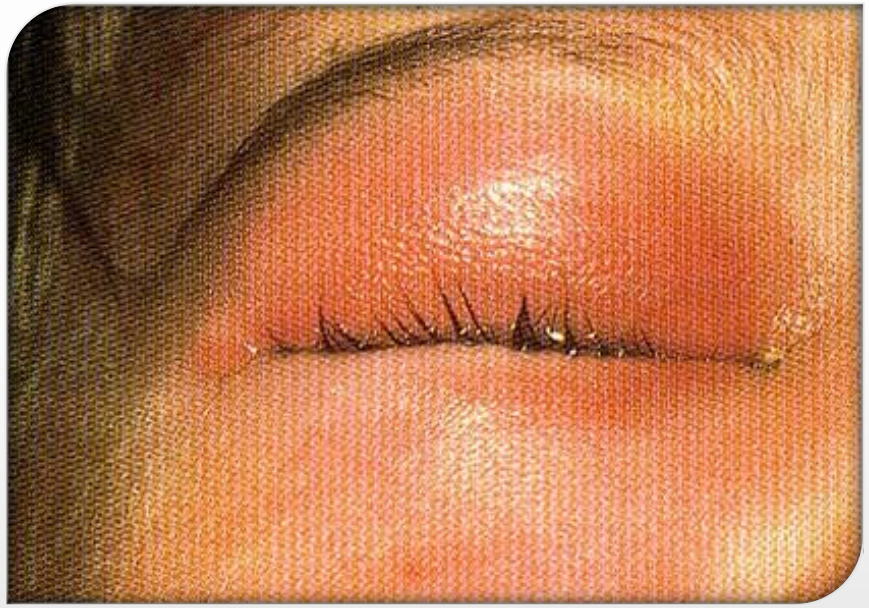
Orbital vs pre-septal cellulitis



Referral from Starship - 5 year old boy presents with swollen red RE. Not able to check vision ? orbital cellulitis.

What is orbital cellulitis and how does it differ from pre-septal cellulitis?

How can you clinically differentiate these two conditions?

What investigations or imaging is required?

Why is orbital cellulitis a potentially life threatening problem?

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What is going on here?

GP referral with binocular diplopia for one month

Patient complains of feeling hot at night but currently afebrile and FBC normal

What is your differential diagnosis?

What investigations would be helpful to confirm the diagnosis and plan management?

A unusual Ward Call

You are a house officer and have been asked by a nurse on the urology ward to see a man with double vision that started 2 hours ago - eyes look in “funny position”

What is the abnormality?

Do you need to do anything about it now or can you leave a message for the team in the morning?

What is the next step in management?

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Don’t Forget

Sight threatening

- Acute glaucoma
- Giant cell arteritis
- Intra ocular foreign body

Life threatening

- Third nerve palsy with pupil involvement
- Orbital cellulitis

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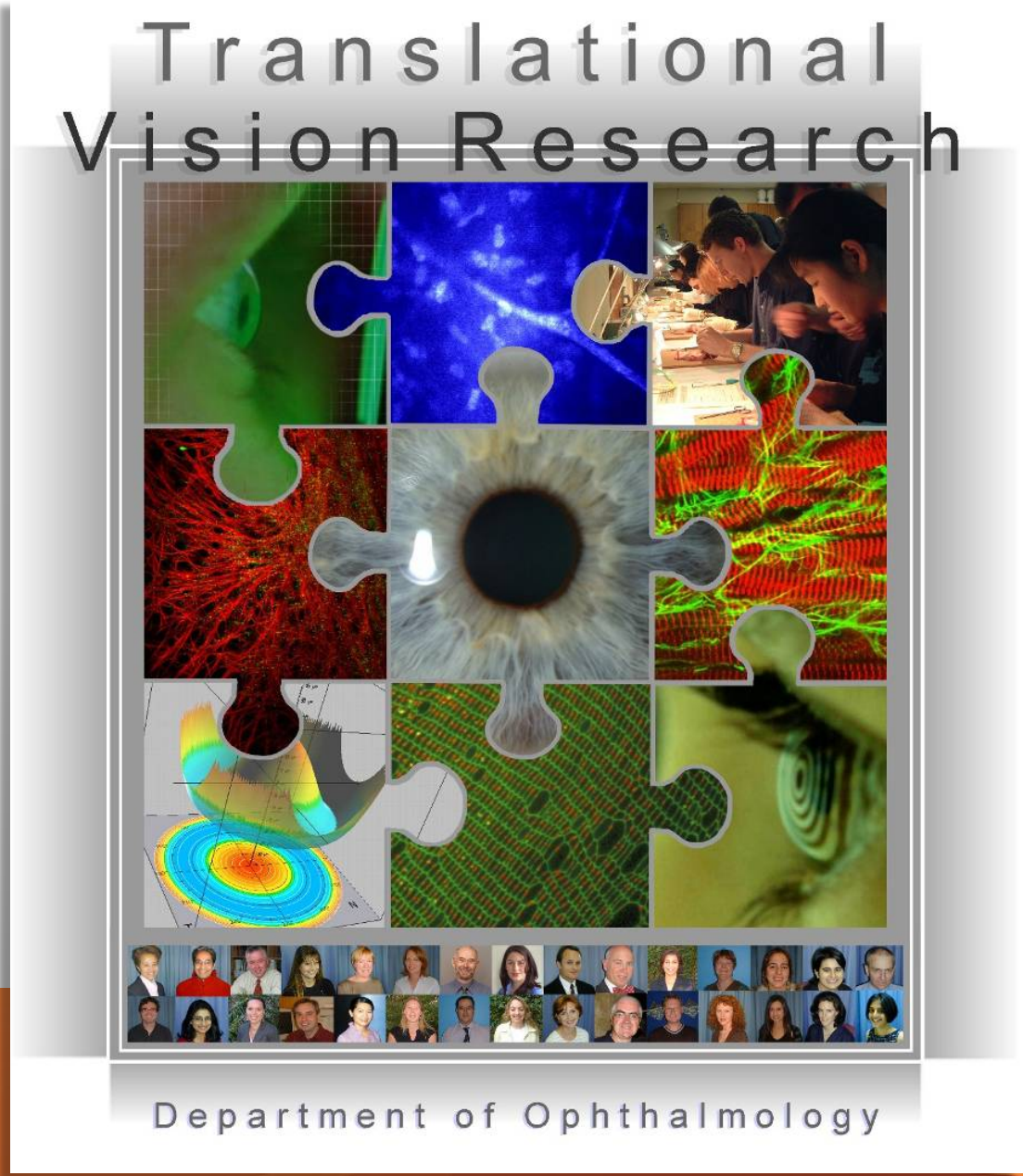

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