



15th Inflammatory Bowel Disease Nurse Forum UK 2021

The slides have been reviewed for off label information by Ferring Pharmaceuticals



The Ocular Complications in IBD

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Consultant Ophthalmic surgeon

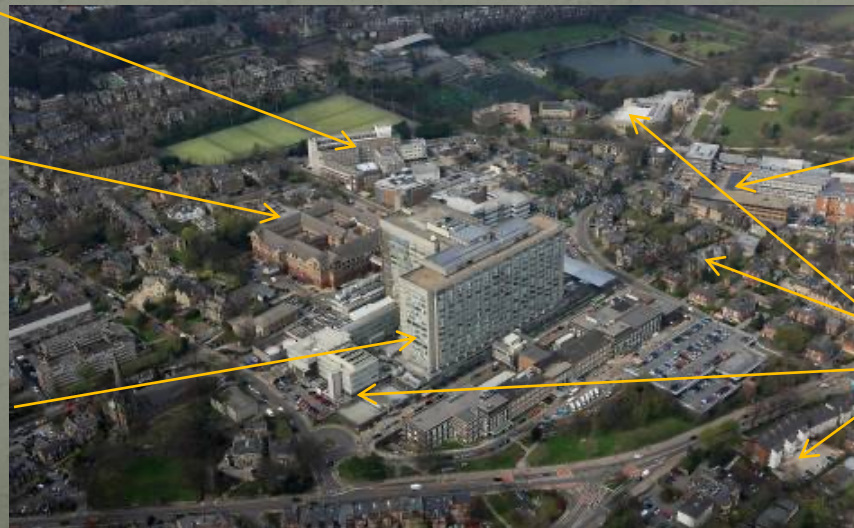
Sheffield Teaching Hospitals

Sheffield Children Hospital

Western Park
Hospital

Jessops Woman
Hospital

Sheffield Teaching
Hospital- Royal
Hallamshire Hospital



Sheffield Children
Hospital

University of
Sheffield



Disclosures



- I have no financial interest or conflicts with the material presented.
- Previous participation in Paediatric Uveitis Advisory Board organised by Abbvie, lectures organised by Allergan Ophthalmology and Abbvie.
- Previously organised Sheffield Inflammatory Eye Disease study days, sponsorships received from Theapharma, Alliance Pharma, Nicox, Allergan Ophthalmology, Heidelberg Engineering, AbbVie.

**EYE= the
'extended part
of the bowel' in
IBD**



Interactive learning

Objectives:

Backgrounds
Symptoms
Clinical signs
Managements

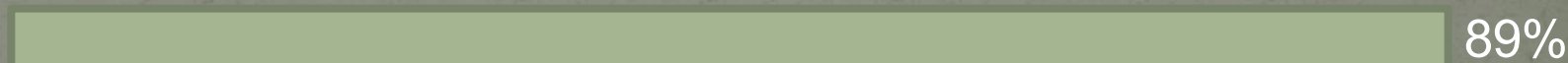


Extraintestinal manifestations

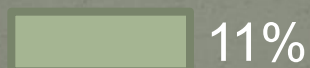
Have you come across patients telling you about their eyes?

Simple → → → → → Complex

1. Yes

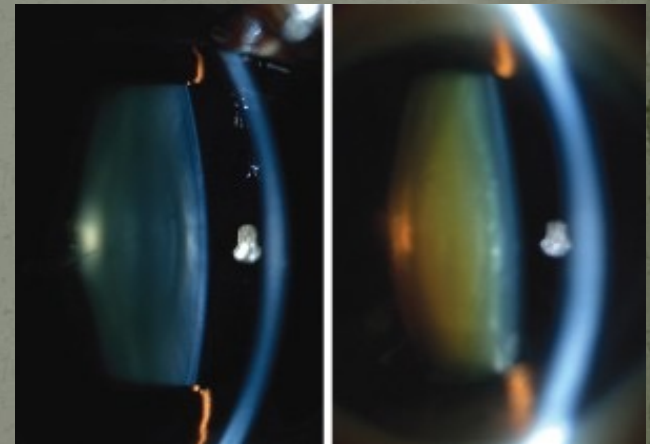


2. No



17- 43% IBD has ocular features

- Dry eye
 - Keratoconjunctivitis sicca
 - Secondary Sjogren's syndrome
- Uveitis
 - Iritis
 - Choroiditis
 - Retinal vasculitis
 - Serous retinal detachment
- Episcleritis
- Cataract
- Glaucoma
- Optic neuritis
- Central serous chorioretinopathy



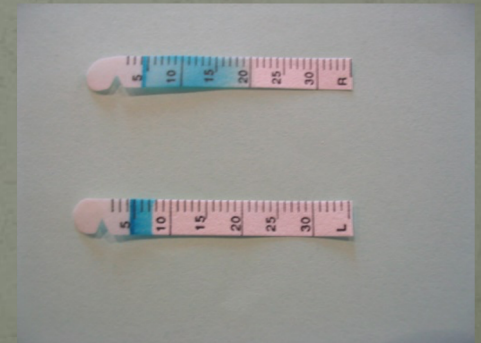
A screening tool for the early diagnosis of extraintestinal manifestations in inflammatory bowel disease:
the EMAIL questionnaire ECCO 2020

Dry eyes ('Sicca' or Sjogren's syndrome)

- Very common: Age related
- Symptoms out proportion signs:
White eye, gritty burning stinging sensation, normal vision
- **Schirmer's test:** Normal ≥ 15 mm after 5 minutes.

Lacrimal gland:

Sjögren's
Sarcoidosis
SLE
RhA
IgG4
Graves
Scleroderma

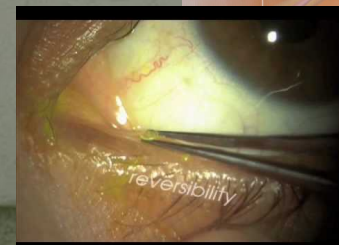
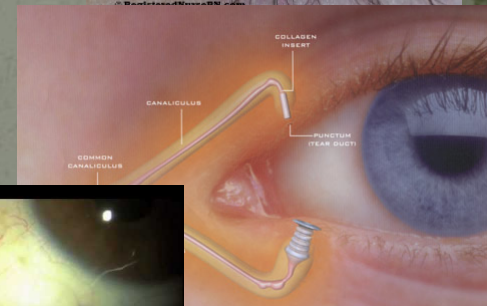
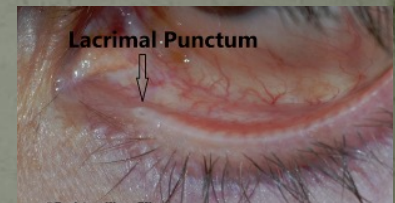


Dry eyes & keratoconjunctivitis sicca

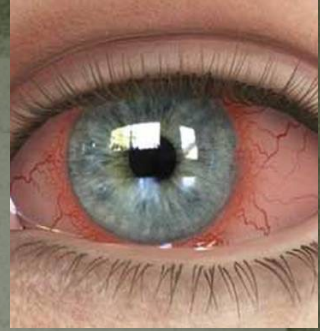
- Treatment objective= Keep the eye moist
 - Artificial tears drops (preservative free to avoid toxicity if use > 6x/day) and ointment at night.
 - **Mostly managed by optician**
 - Refer if still symptomatic, to consider
 - Punctal occlusion
 - Topical Cyclosporin
 - Moist chamber goggles
 - Botox to the upper lids
 - Amniotic membrane graft

Advise to see an optician

Simple & Symptomatic



32 ♂ in CD clinic with a red eye


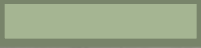
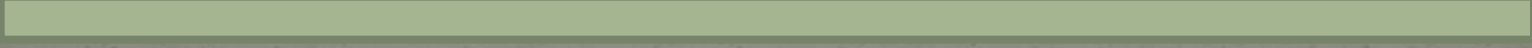



- Painful right eye
- Photophobia (sensitivity to light)
- Headache
- Blurred vision
- Symptoms worsened gradually over 2 weeks

Question

What would you do?

Advise to consult:

- 1 Optician
 30.4%
- 2 GP
 4.3%
- 3 Casualty
 33.3%
- 4 Pharmacist
0.0%
- 5 111
0.0%
- 6 Referral letter to the ophthalmology department
 31.9%
- 7 Do nothing
0.0%

[Vote Now](#)

He said.....

- Already be treated by GP with eye drops and it did not improve.
- The pain is not bad enough to stop him doing things and did not wake him from sleep

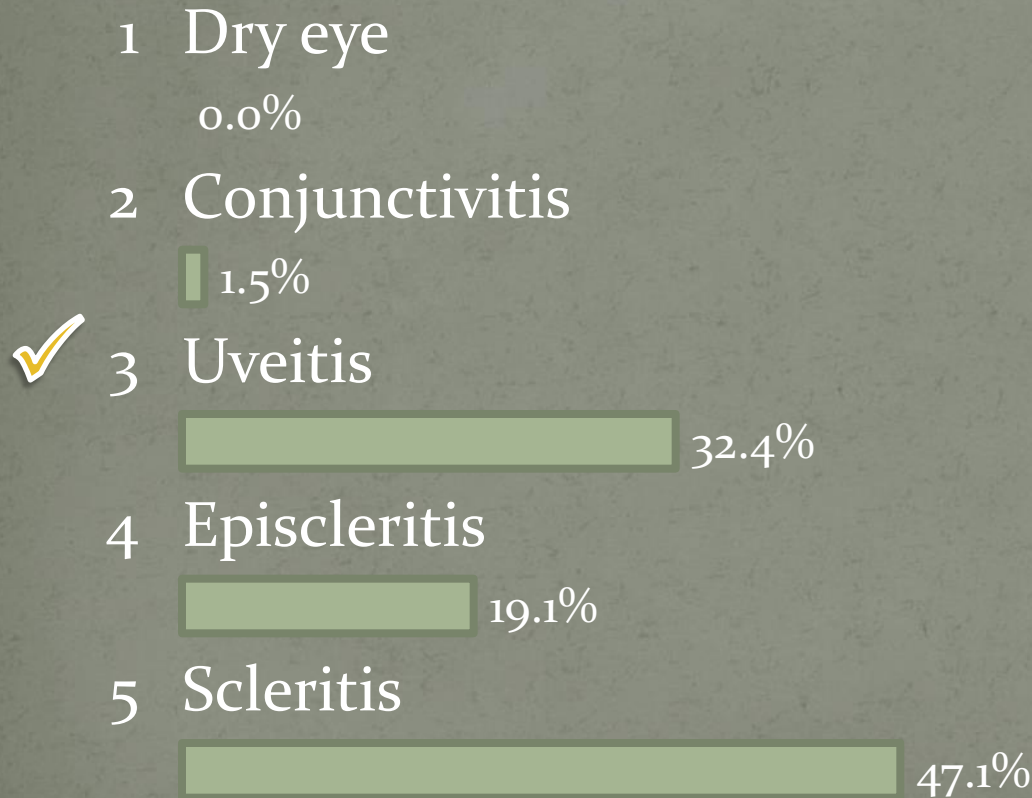
- Sat in a dark corner, with tinted glasses and a baseball cap on top of a hoodie



- No past ocular history
- Medical history:
 - Crohn's disease for 5 years
- Drug history:
 - Biologic therapy- Vedolizumab
 - Antibodies to infliximab
 - Intolerance to MMF and MTX

Question

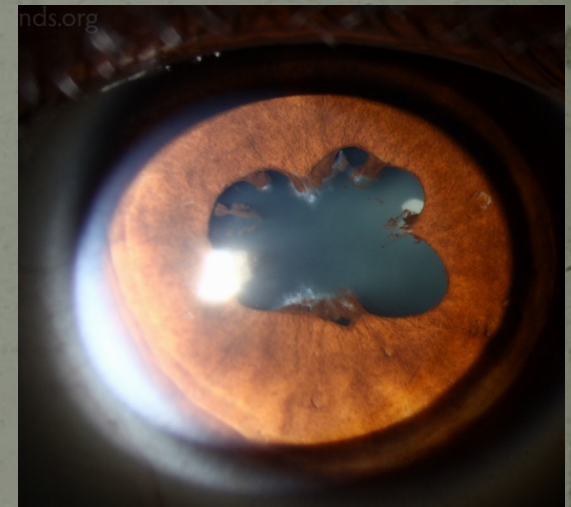
What do you think?



Vote Now

Optician referral letter

- Visual acuity with glasses:
 - Right eye 6/24
 - Left eye 6/6
- Intraocular pressure:
 - Right eye 7mmHg
 - Left eye 15mmHg



Posterior synechiae-
Abnormal pupils-
shape and colour
Circumlimbus flush

The First European Evidence-based Consensus on Extra-intestinal Manifestations in Inflammatory Bowel Disease

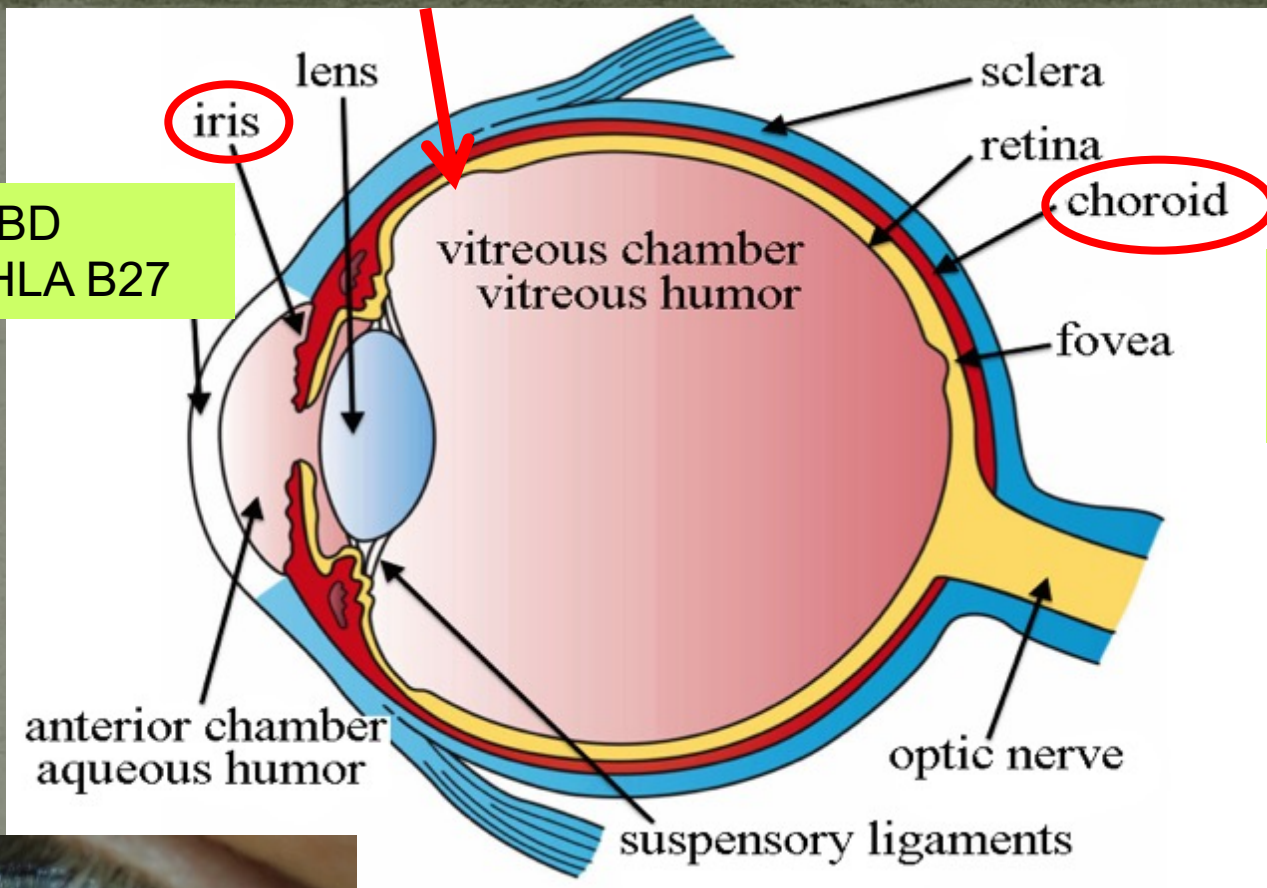
Marcus Harbord,^{a,†} Vito Annese,^b Stephan R. Vavricka,^c Matthieu Allez,^d Manuel Barreiro-de Acosta,^e Kirsten Muri Boberg,^{f,†} Johan Burisch,^g Martine De Vos,^h Anne-Marie De Vries,ⁱ Andrew D. Dick,^j Pascal Juillerat,^k Tom H. Karlsen,^{f,†} Ioannis Koutroubakis,^m Peter L. Lakatos,ⁿ Tim Orchard,^o Pavol Papay,^p Tim Raine,^q Max Reinshagen,^r Diamant Thaci,^s Herbert Tilg,^t Franck Carbonnel;^{u,†} for the European Crohn's and Colitis Organisation [ECCO]

ECCO Statement 4A

Simple episcleritis does not require referral to an ophthalmologist. This should be differentiated from uveitis and scleritis, based upon the absence of moderate-severe eye pain, photophobia, blurring, and diminished vision. When this is not possible, or in patients with possible sight-threatening ocular manifestations [scleritis and uveitis], patients should be treated by an ophthalmologist with expertise in ocular inflammatory disease [EL5]

IBD
HLA B27

Behçet's
Sarcoidosis
SLE



UVEITIS

~ 30% has associated systemic conditions

5% IBD has uveitis

Uvea= pigment tissue
Anterior= iris,
Intermediate= pars plana,
Posterior= choroid

} Pan-uveitis

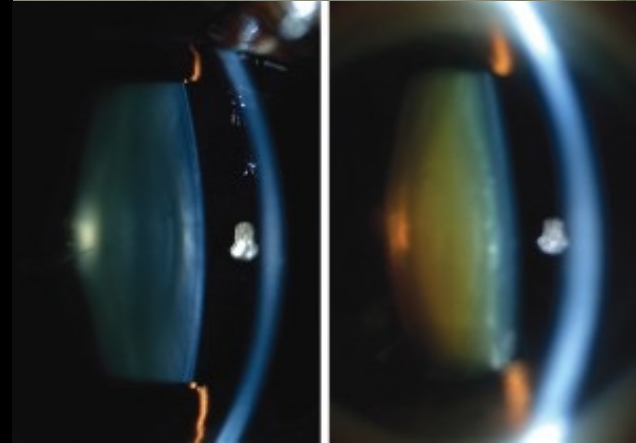
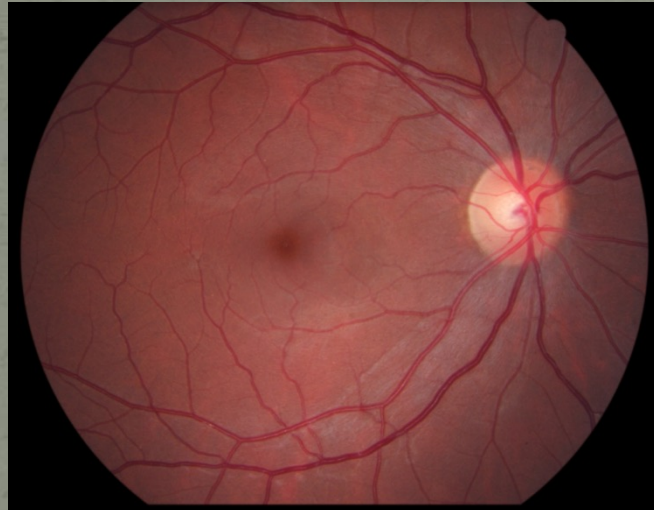
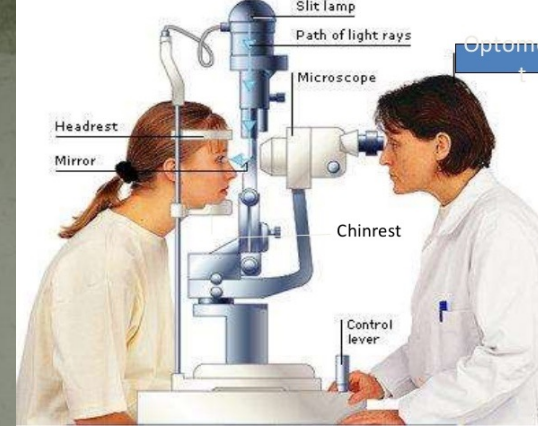
Uveitis

- Typical symptoms
 - Photophobia- sensitivity to light
 - Pain- progressive eye pain +/- headache
 - Red eye +/- mild lids swelling
 - Floaters
 - Sight loss
 - Glaucoma- Nausea/ vomiting (case reports of misdiagnosed as appendicitis)

Common & Symptomatic

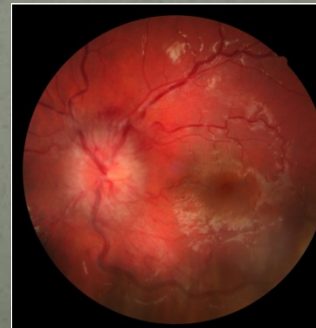
~~Itchiness~~

~~Sticky
Discharge~~

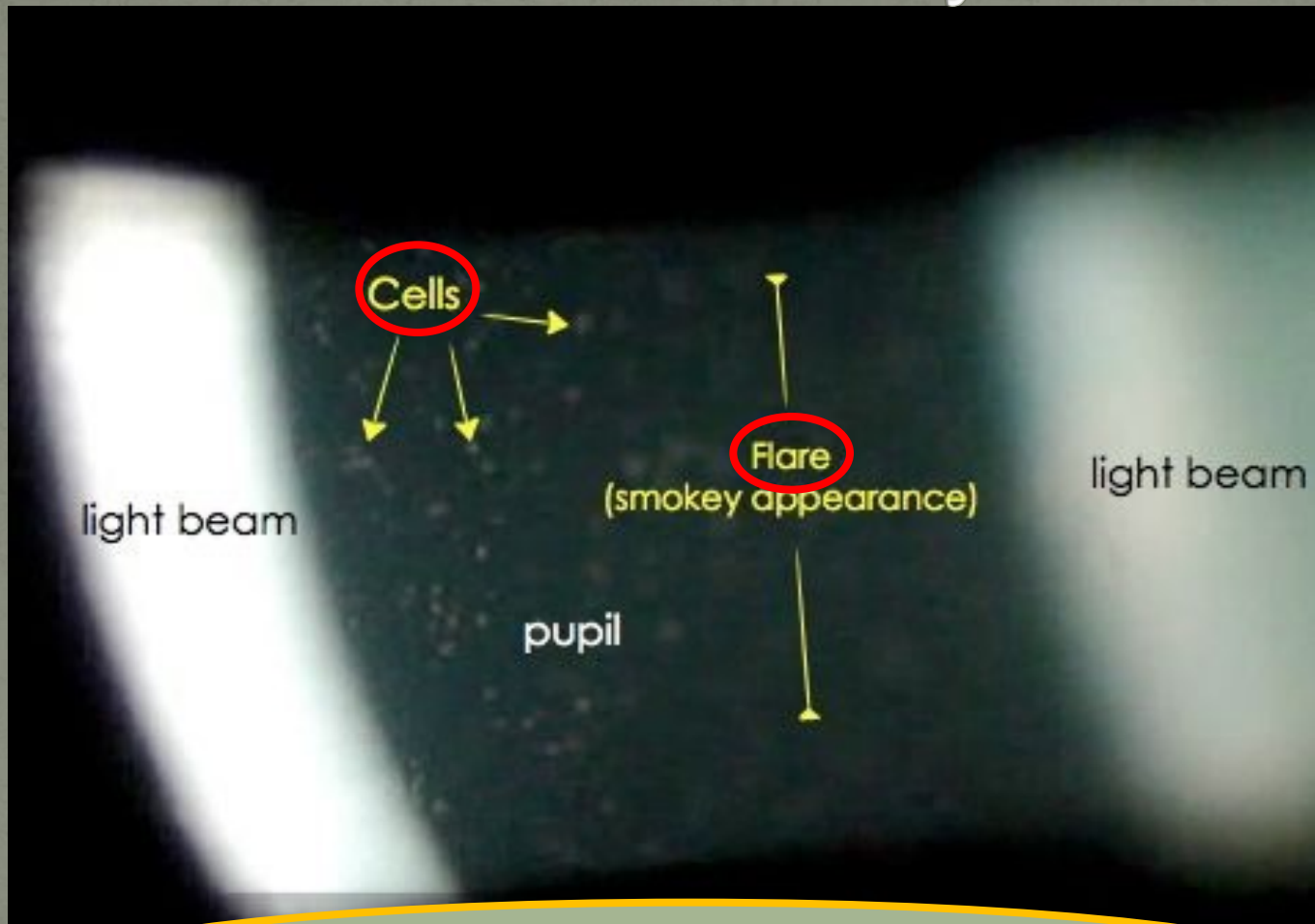


Clinical Signs **On Examination**

SLIT LAMP



Anterior chamber activity



Normal= black= no obstruction of light ray

Inflammation Activity Score

High power field
1x1mm slit beam



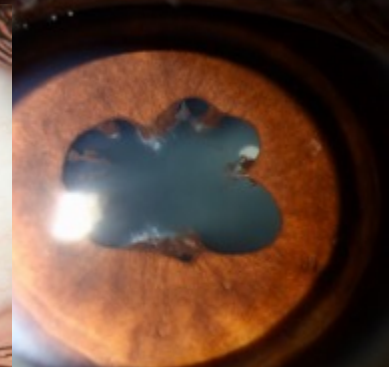
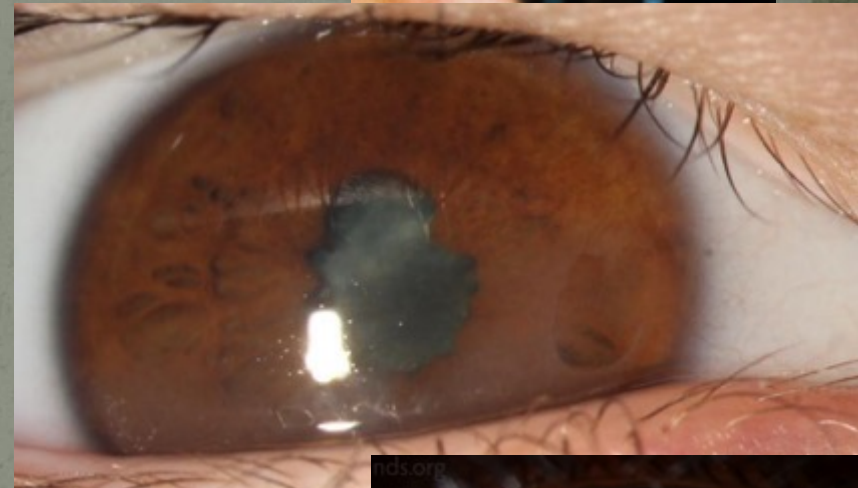
AC cells

Activity	Cells
0	<1
0.5+	1-5
1+	6-15
2+	16-25
3+	26-50
4+	>50

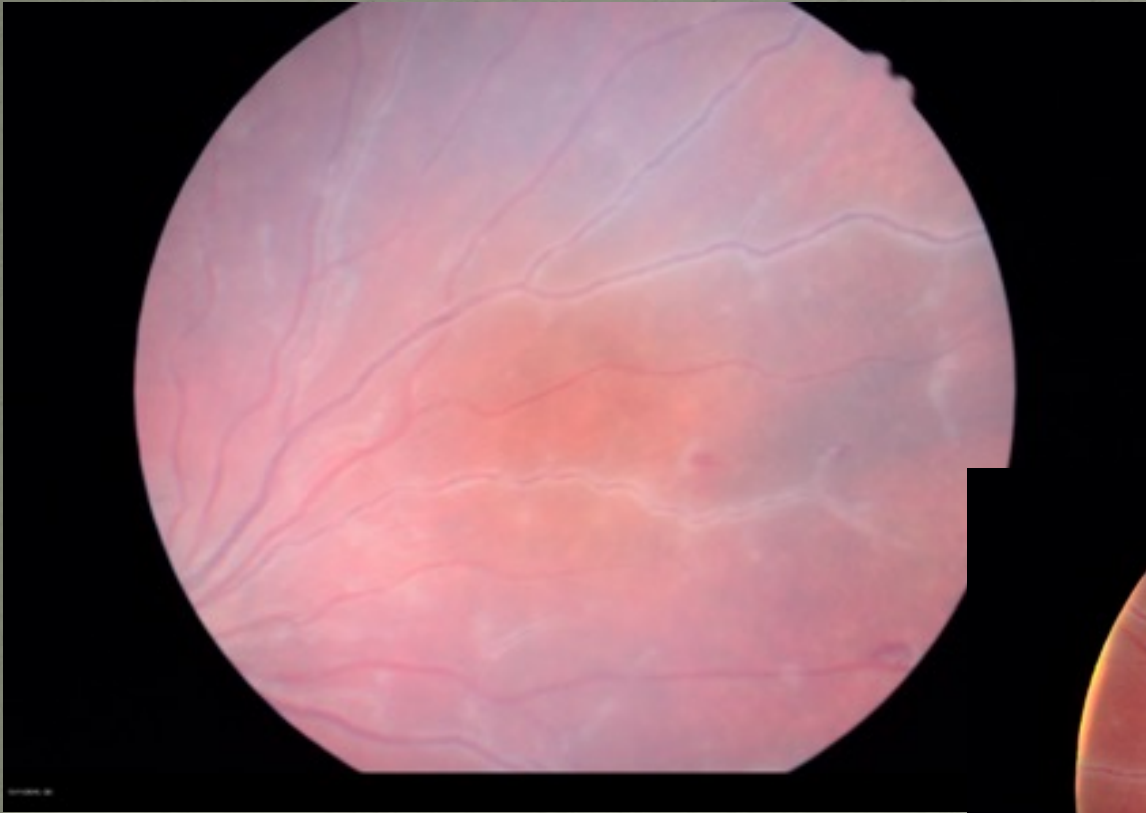
Jabs DA et al; Standardization of Uveitis Nomenclature (SUN) Working Group Am J Ophthalmol 2005; **140**: 509-16.

Complication of uveitis

- Band keratopathy
- Cataract
- Posterior synchaeia
- Glaucoma
- Hypotony
- Retinopathy
- Optic neuropathy



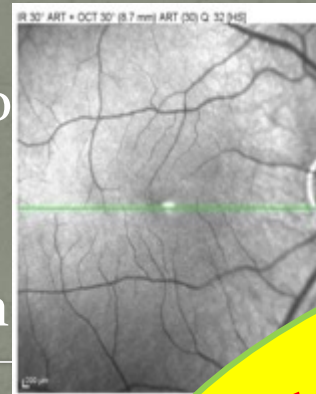
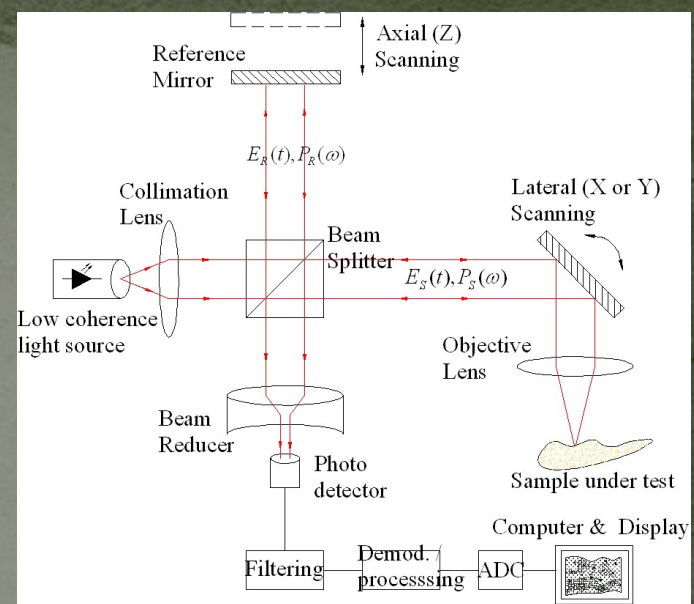
Retinal vasculitis



Optical Coherence Tomography 'OCT', OR SPECTRALIS

- Based on **low-coherence Interferometry**
- Sub-surface images (<2mm) of opaque tissues at a resolution equivalent to a low-power microscope;
- Effectively an 'optical ultrasound', to provide cross-sectional images
- A way to view tissue morphology at higher resolution (better than 10 μm better than MRI or US
- No ionizing radiation
- Non contact

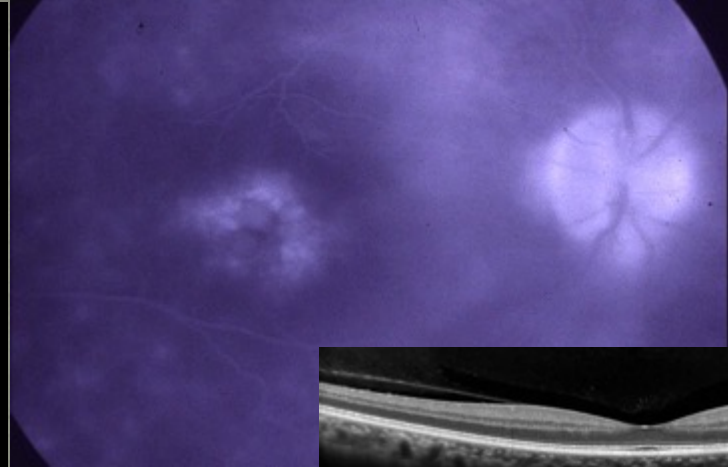
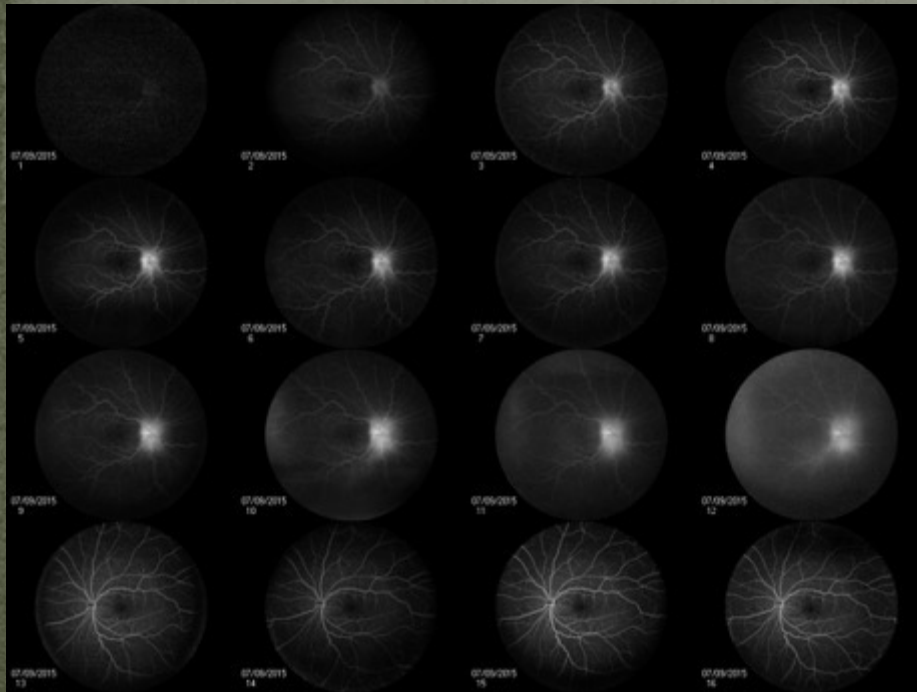
Near infrared long wavelength light, generated by laser.

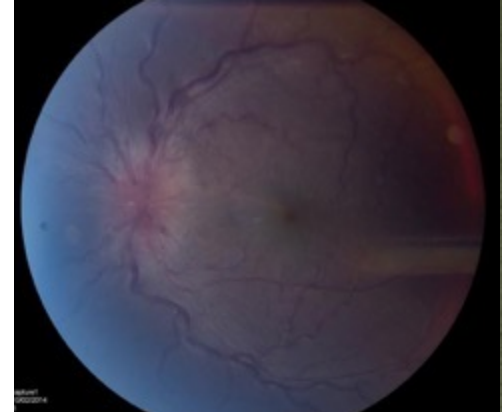
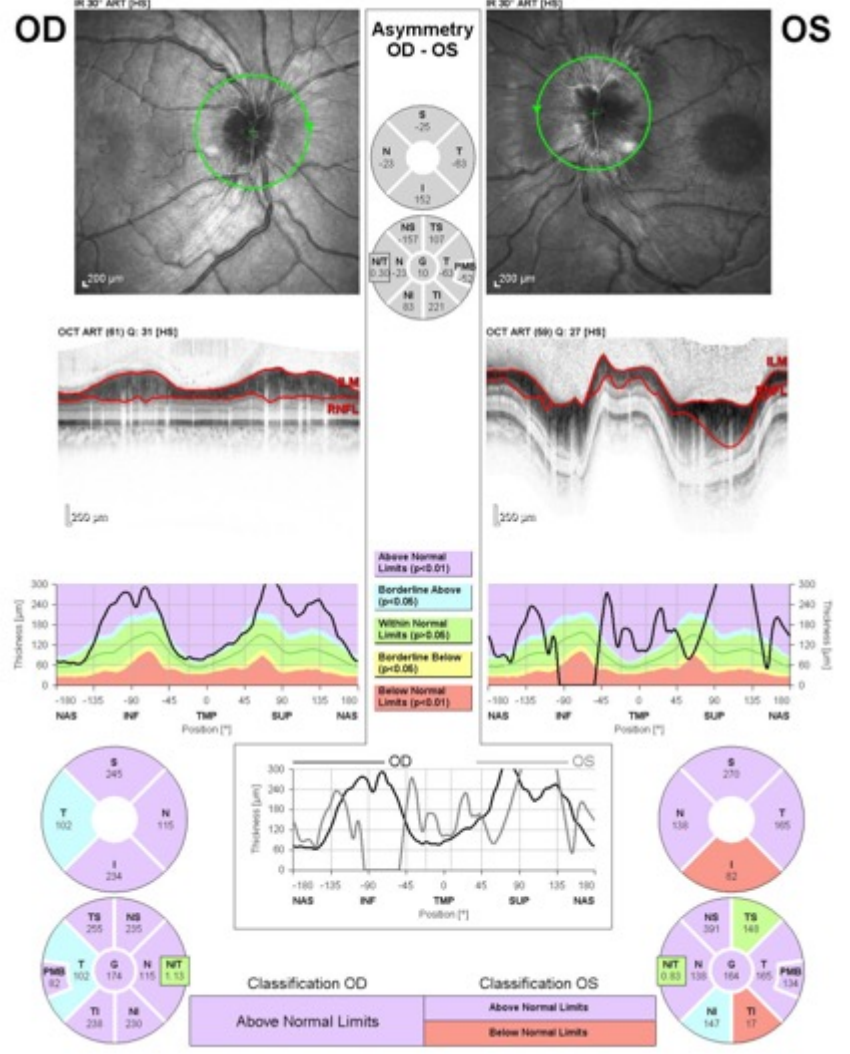


**Eye Tracking
Autorescan**



Macular oedema





Objective monitoring of macular and optic nerve head swelling

Treatment of Paediatric uveitis

Start topical **Steroids (IA)** >1 good quality RCT, strong recommendation

Systemic Steroids (IIIA) Expert opinion, clinical experience, descriptive studies, cohort, case-control study of poorer quality)

*Subconjunctival/ orbital floors Steroids (IIIA)

Intravitreal steroids= 'rescue therapy' (IIIO) open minded

Topical NSAID- low efficacy (IB), systemic (IIIO)

Anti-inflammatory immunosuppression

Methotrexate 10-15mg/m²/ week (IIIA)

Mycofenolate Mofetil upto 2g/d (IIIO)

Chlorambucil (IIIA), Azathioprine (IIIB), Cyclosporin A (IIIO)

Tumor Necrosis Factor- α Inhibitor (TNFI)

Infliximab 5-10mg/kg every 2-8 wks (IIA)

Adalimumab 24-40 mg/m² every 2 weeks (IIIA)

Etanercept (IO)

IA

~ 3 months

~ 4 months



Evidence based interdisciplinary guidelines for anti-inflammatory treatment of uveitis associated JIA
Zierhut et al Rheu Int Nov 2011

The First European Evidence-based Consensus on Extra-intestinal Manifestations in Inflammatory Bowel Disease

Marcus Harbord,^{a,†} Vito Annese,^b Stephan R. Vavricka,^c Matthieu Allez,^d Manuel Barreiro-de Acosta,^e Kirsten Muri Boberg,^{f,†} Johan Burisch,^g Martine De Vos,^h Anne-Marie De Vries,ⁱ Andrew D. Dick,^j Pascal Juillerat,^k Tom H. Karlsen,^{f,†} Ioannis Koutroubakis,^m Peter L. Lakatos,ⁿ Tim Orchard,^o Pavol Papay,^p Tim Raine,^q Max Reinshagen,^r Diamant Thaci,^s Herbert Tilg,^t Franck Carbonnel;^{u,†} for the European Crohn's and Colitis Organisation [ECCO]

ECCO Statement 4B

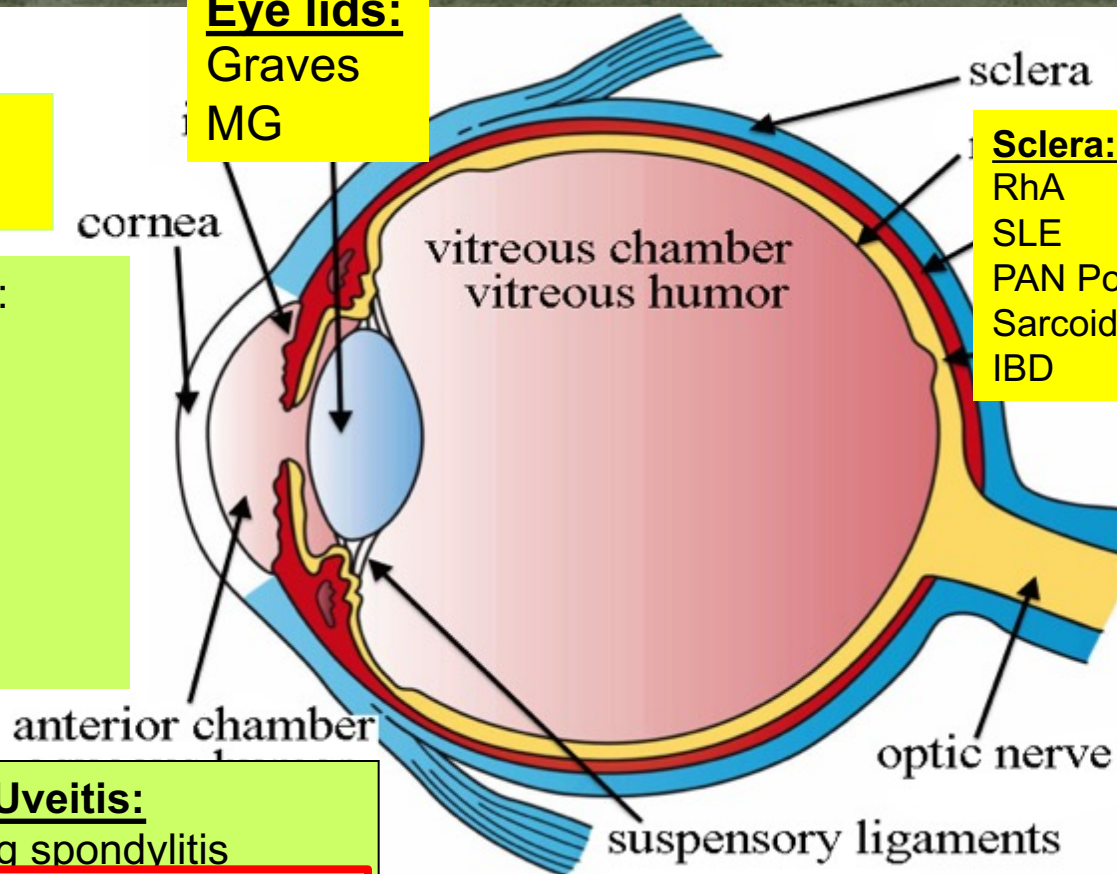
Episcleritis may self-resolve. Topical or systemic NSAIDs or topical corticosteroids can be used for symptomatic treatment [EL4]. Treatment for scleritis or uveitis should be guided by an ophthalmologist, and includes topical or systemic corticosteroids, conventional immunosuppressants, and anti-TNF agents [EL4]

Cornea:
Rheumatoid

Lacrimal gland:

Sjögren's
Sarcoidosis
SLE
RhA
IgG4
Graves
Scleroderma

Eye lids:
Graves
MG



Sclera:
RhA
SLE
PAN Polyarteritis nodosa
Sarcoidosis
IBD

Optic nerve:
Giant cell arteritis
Multiple sclerosis
PAN
Takayasu's
Antiphospholipid

Anterior Uveitis:

Ankylosing spondylitis
Inflammatory bowel disease
Enteropathic arthritis
Reactive arthritis
Psoriatic arthritis
Dermatomyositis
JIA
Sarcoidosis
Behçet's
TINU

Extraocular muscles:

Graves
Myasthenia gravis

Orbit:

GPA- granulomatosis
with polyangitis
Graves

Panuveitis:

Behçet's
Sarcoidosis
SLE
MS
VKH

Case 2

- 28 year old female in IBD clinic and also known to be HLA B 27 positive.
- 1 weeks history of red eye and photophobic





What would you do?

What do you think his GP would do?

- Acute painful sight loss - eye AED or GP to liaise with the on call eye doctor
- Non-sight threatening - optician

Conclusion

- Beware of the 'OTHER' part of the bowel outside the GI track.
- Treatments can be complex in uveitis and scleritis.
- If any abnormal signs, make it clear in the referral letter. Or just walk across to the eye department.



THANK YOU FOR YOUR ATTENTION