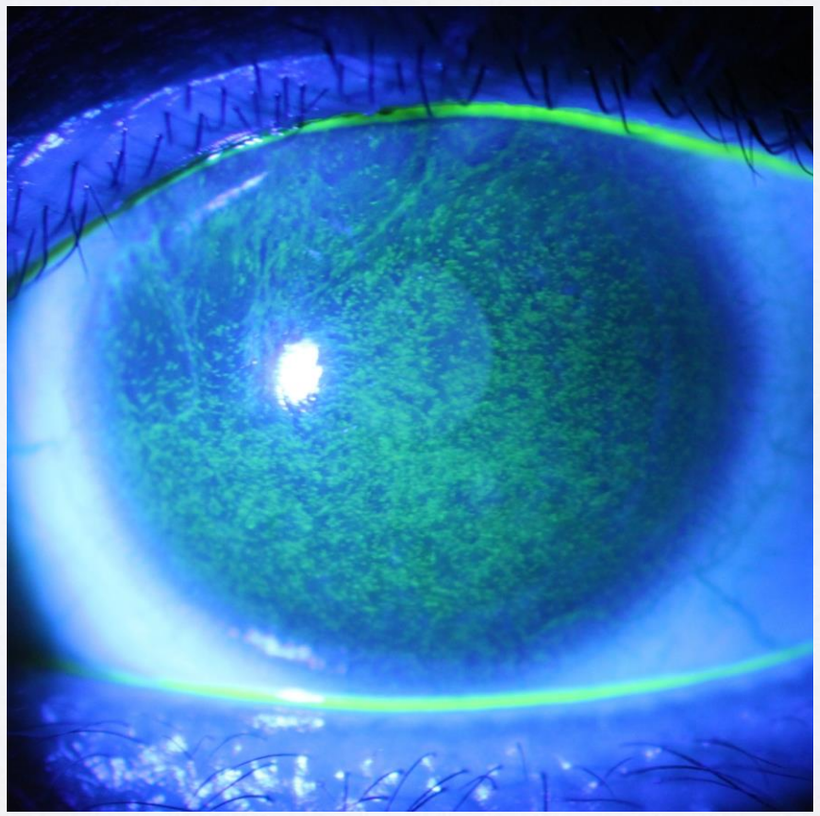
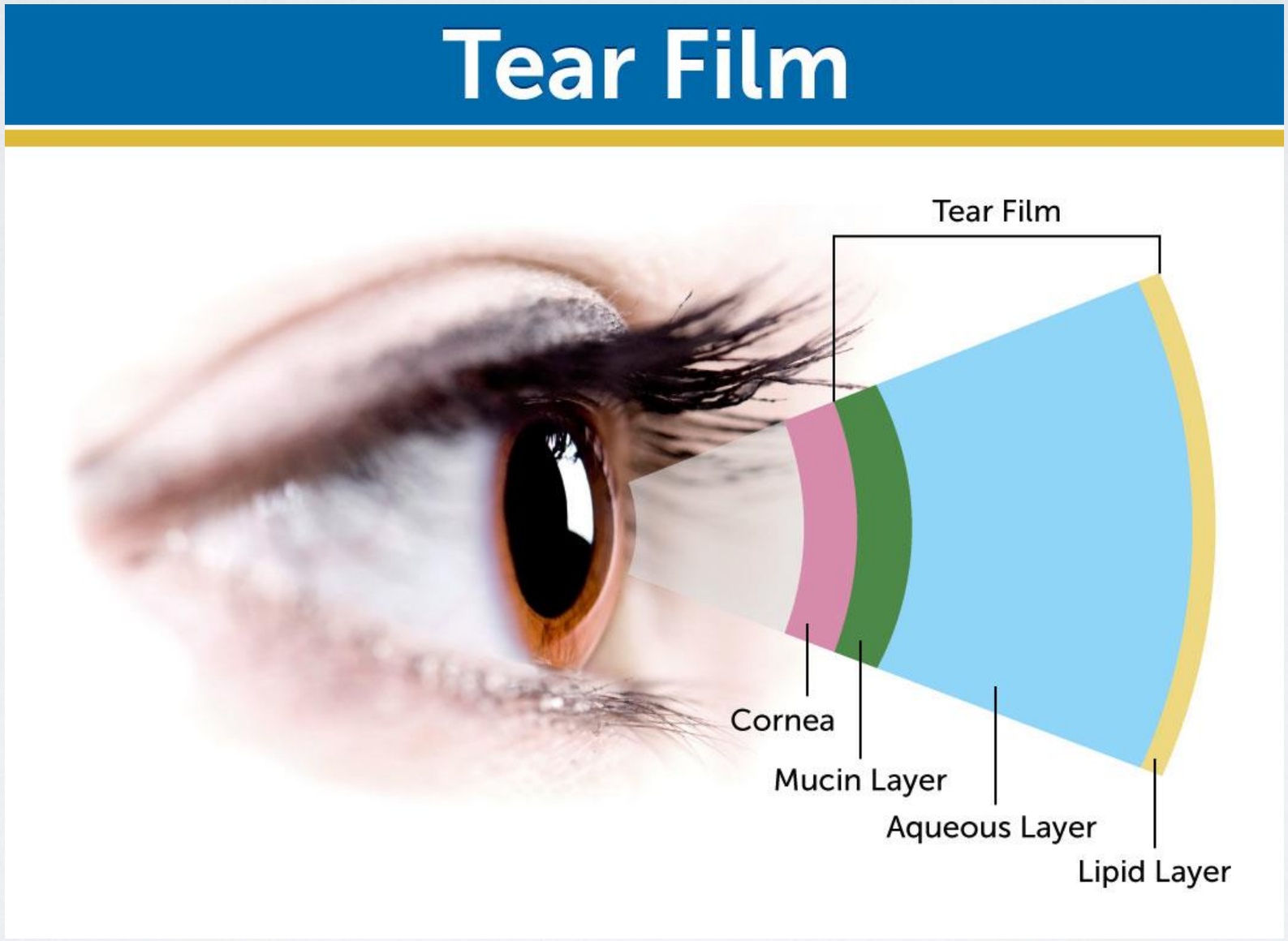
External eye disease

Francesca Harman
September 2019



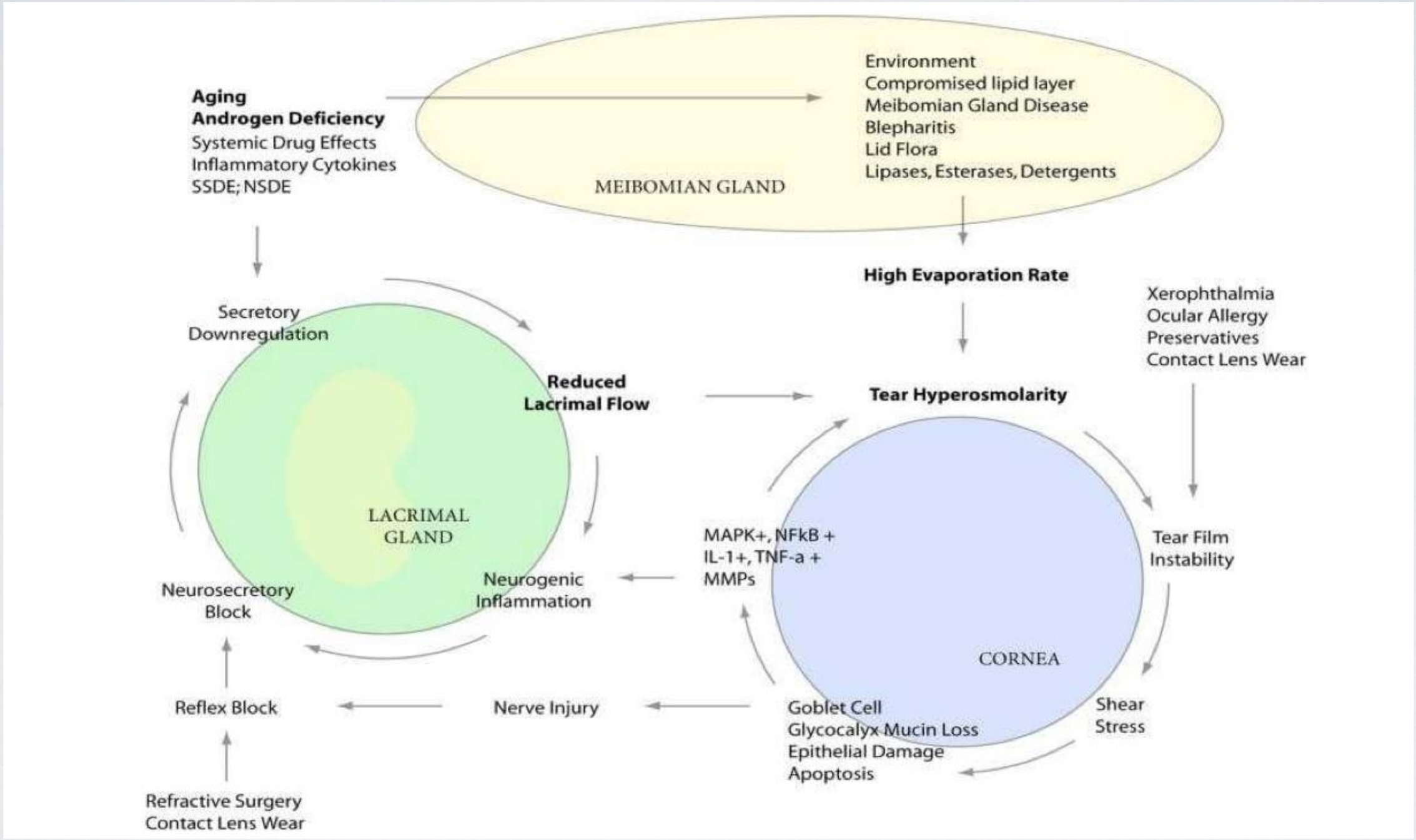
Dry Eye


Tear Film
Tear Film
Cornea
Mucin Layer
Aqueous Layer
Lipid Layer

DEWS II

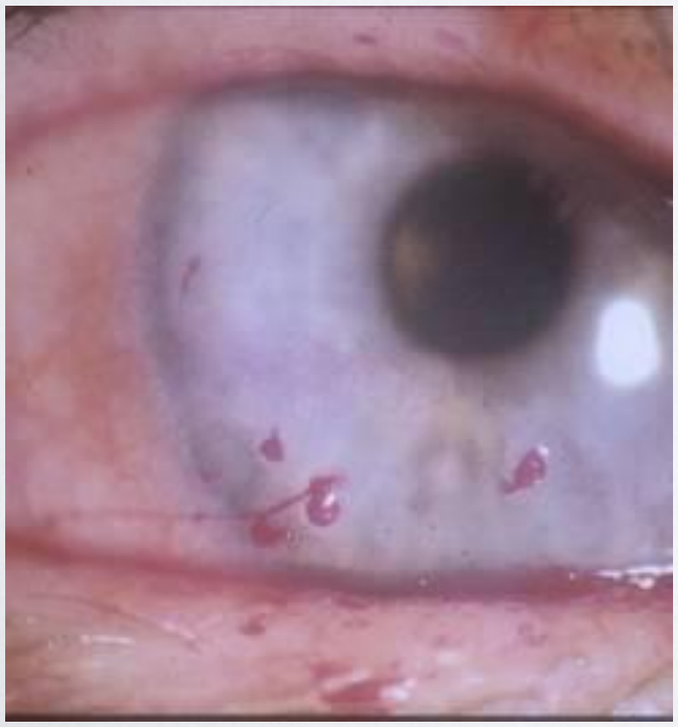
“Dry eye is a multifactorial disease of the ocular surface characterized by a loss of homeostasis of the tear film, and accompanied by ocular symptoms, in which tear film instability and hyperosmolarity, ocular surface inflammation and damage, and neurosensory abnormalities play etiological roles.”

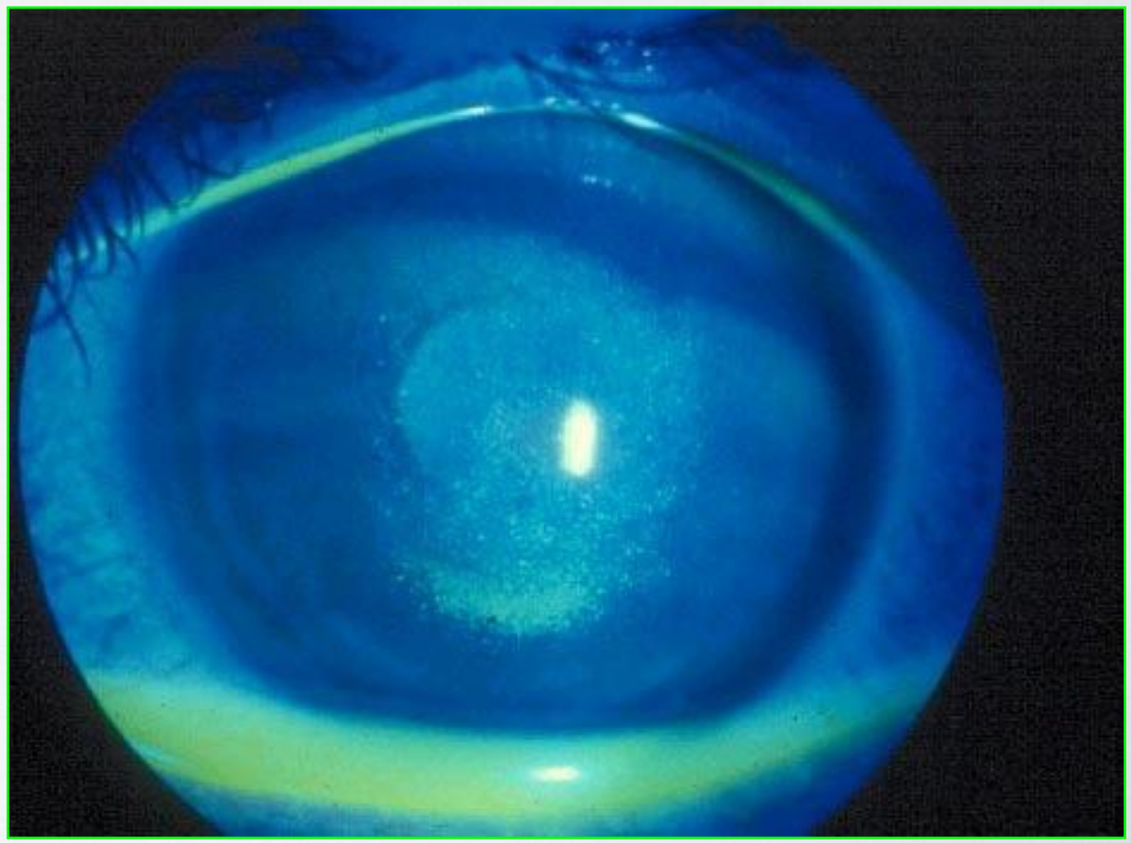
- Poor quantity – aqueous deficient
- Poor quality - evaporative
- ……. inflammation

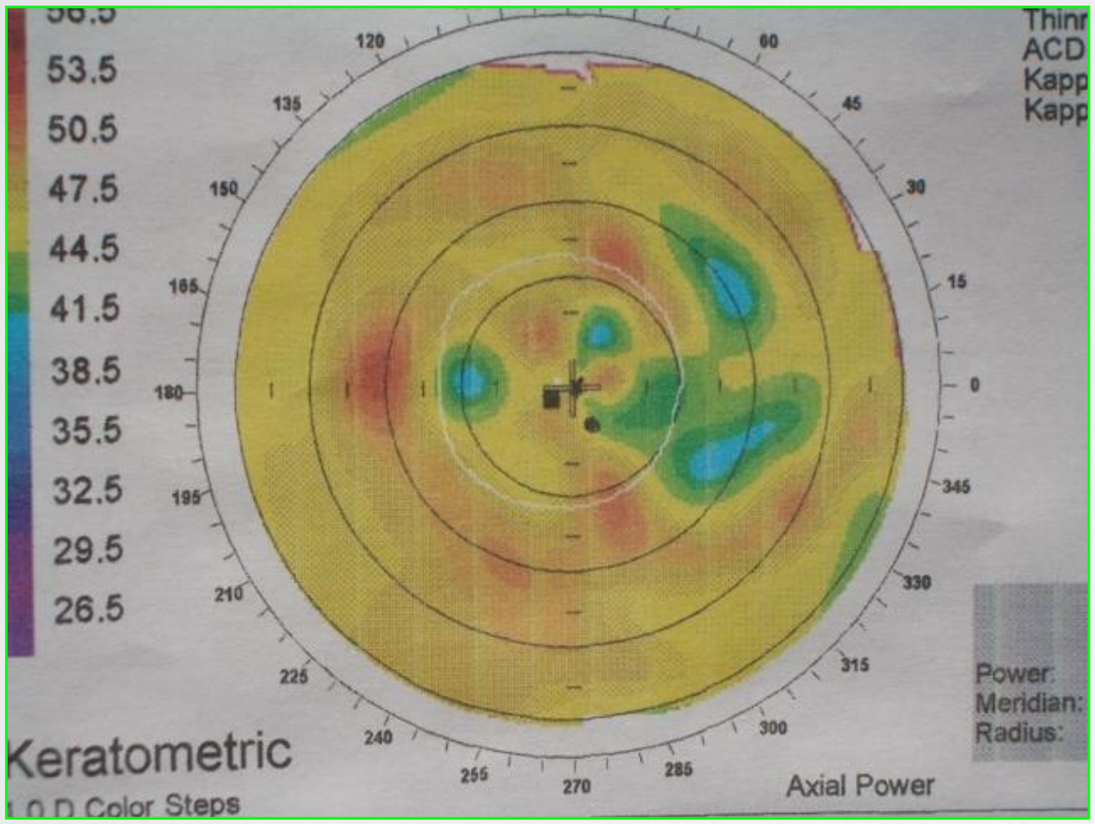

Aging
Androgen Deficiency
Systemic Drug Effects
Inflammatory Cytokines
SSDE; NSDE
MEIBOMIAN GLAND
Environment
Compromised lipid layer
Meibomian Gland Disease
Blepharitis
Lid Flora
Lipases, Esterases, Detergents
High Evaporation Rate
Xerophthalmia
Ocular Allergy
Preservatives
Contact Lens Wear
Secretory
Downregulation
Reduced
Lacrimal Flow
Tear Hyperosmolarity
LACRIMAL
GLAND
MAPK+, NFkB +
IL-1+, TNF-a +
MMPs
Tear Film
Instability
Neurosecretory
Block
Neurogenic
Inflammation
CORNEA
Reflex Block
Nerve Injury
Goblet Cell
Glycocalyx Mucin Loss
Epithelial Damage
Apoptosis
Shear
Stress
Refractive Surgery
Contact Lens Wear

Symptoms

- Irritation, burning, stinging, light sensitivity, foreign body sensation
- *Fluctuating vision*






56.5
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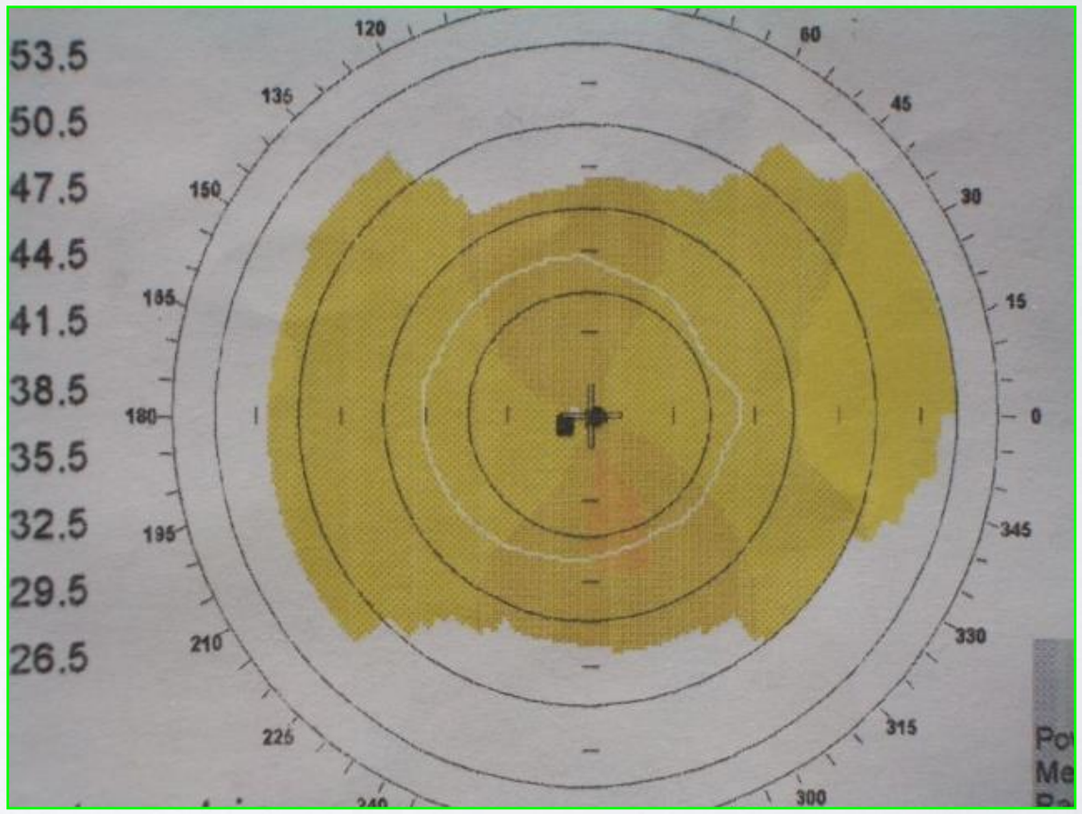
Power:
Meridian:
Radius:
Keratometric
1.0 D Color Steps
Axial Power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120
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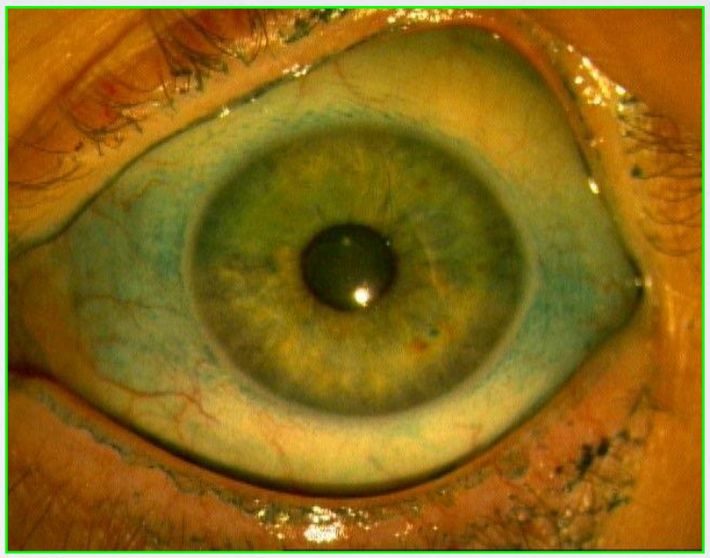
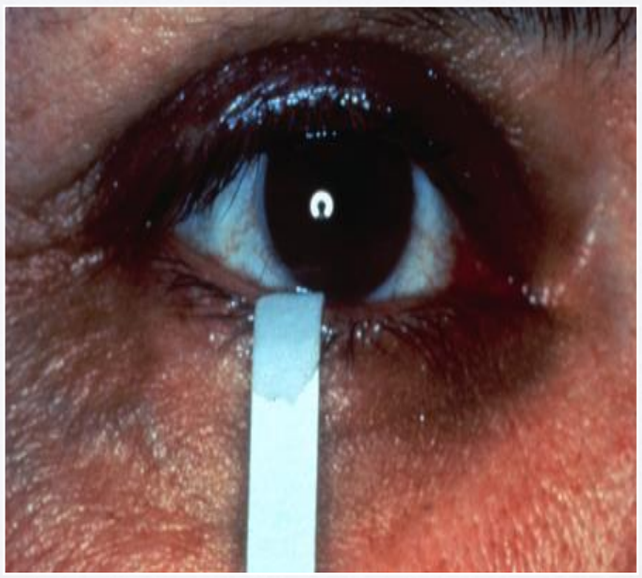
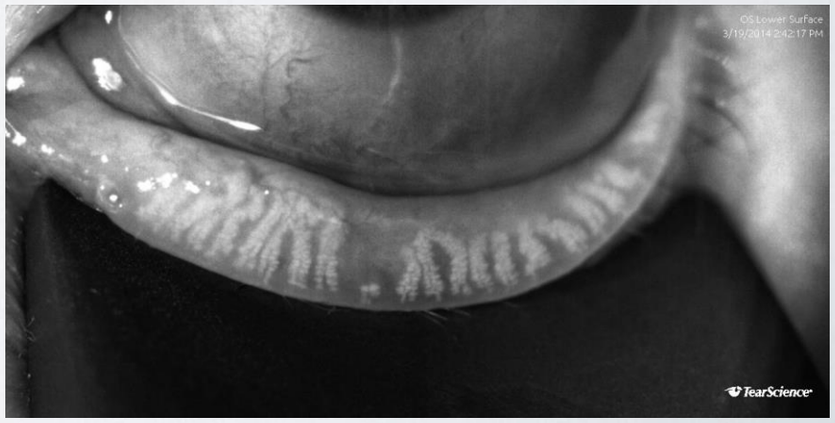
150
30
165
15
180
0
195
345
210
330
225
315
300

Diagnosis

- OSDI questionnaire
- Lid margin disease
- Tear break up time
- Conjunctival / corneal punctate staining
- Schirmers test
- Osmolarity
- MMP
- Lipiview

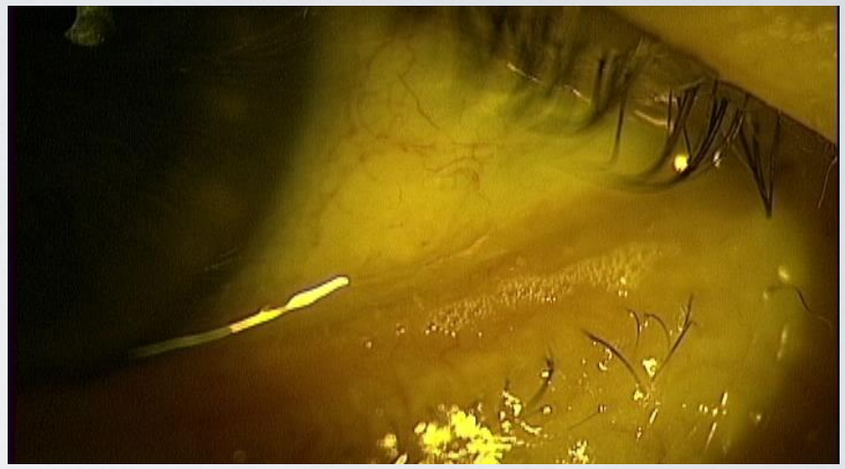




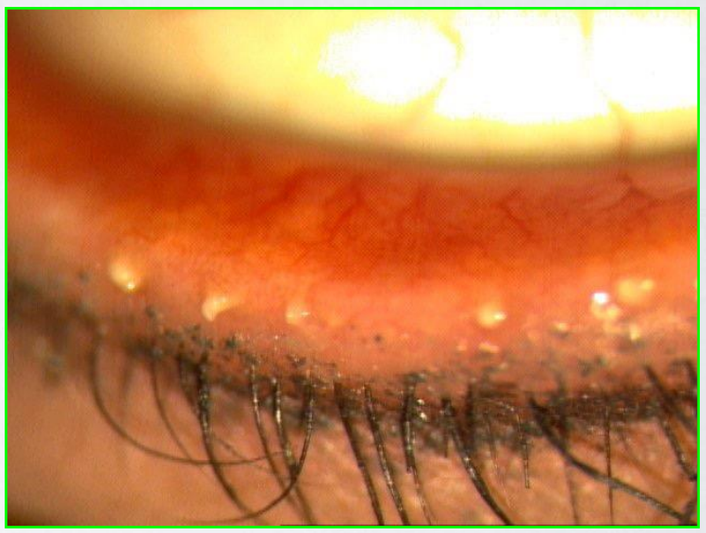


Blepharitis

- Common, chronic, bilateral



- Staphylococcal or seborrhoeic



- Sx: burning, grittiness, dry eye
- Ex: crusting, lid notching and telangiectasia, hyperaemia

Symptomatic Therapy

1. Modify environment
2. Lid hygeine / hot compresses
3. Avoid medication with anti-cholinergic s/e
4. Avoid multiple preserved eye drops
5. Punctal occlusion
6. Minimize corneal exposure (tarsorrhaphy, GPCL)
7. Lubricants
8. Biologic tear substitutes - serum
9. Lipiflow

Lubricants

- Main variables are electrolytes (K, HCO_3), osmolarity, viscosity, preservatives
- Polymers determine viscosity, retention time, adhesion to surface
- Absence of preservatives more important than type polymer - BAK toxic to epithelium
- *Temporarily* improve subj and obj parameters
- No evidence any one agent is superior except hyaluronate if epithelial defect

NW London formulary

- Hypromellose - first line
- polyvinyl alcohol - liquifilm, sno tears
- yellow soft paraffin - simple eye ointment
- liquid paraffin - lacilube, xailin
- carmellose - optive
- hydroxymethylcellulose - minims
- carbomer 980 - viscotears
- sodium hyaluronate 0.1%, 0.2% - hylotears, optive fusion, hyloforte

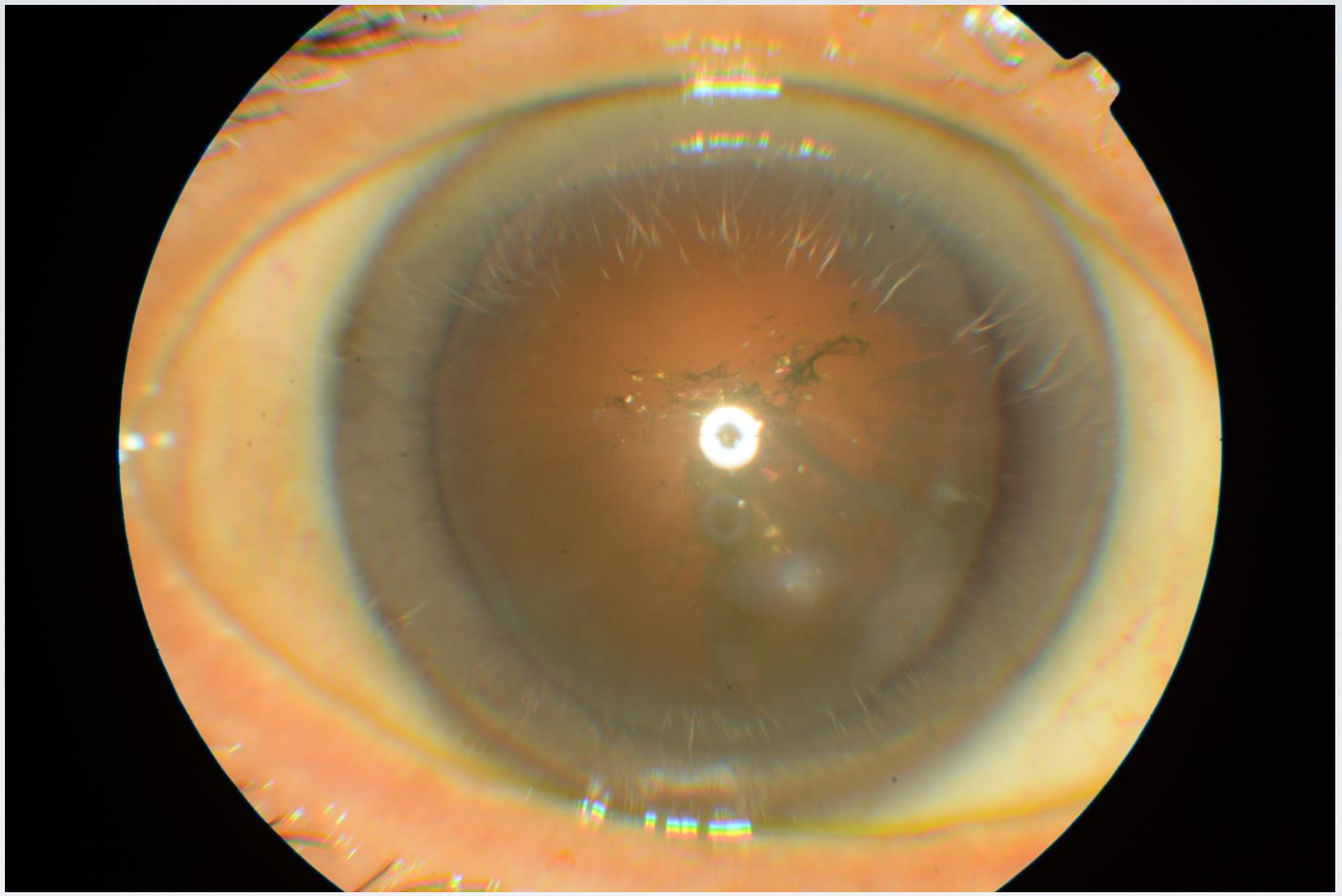
Causative therapy

- Cyclosporin A
- Corticosteroids
- Tetracyclines
- Omega 3

Public Health England advice

- ‘prescription for treatment of dry or sore eyes should not routinely be offered in primary care as the condition is appropriate for self-care’
- ‘most cases of sore tired eyes resolve themselves

- Refer to us if not!

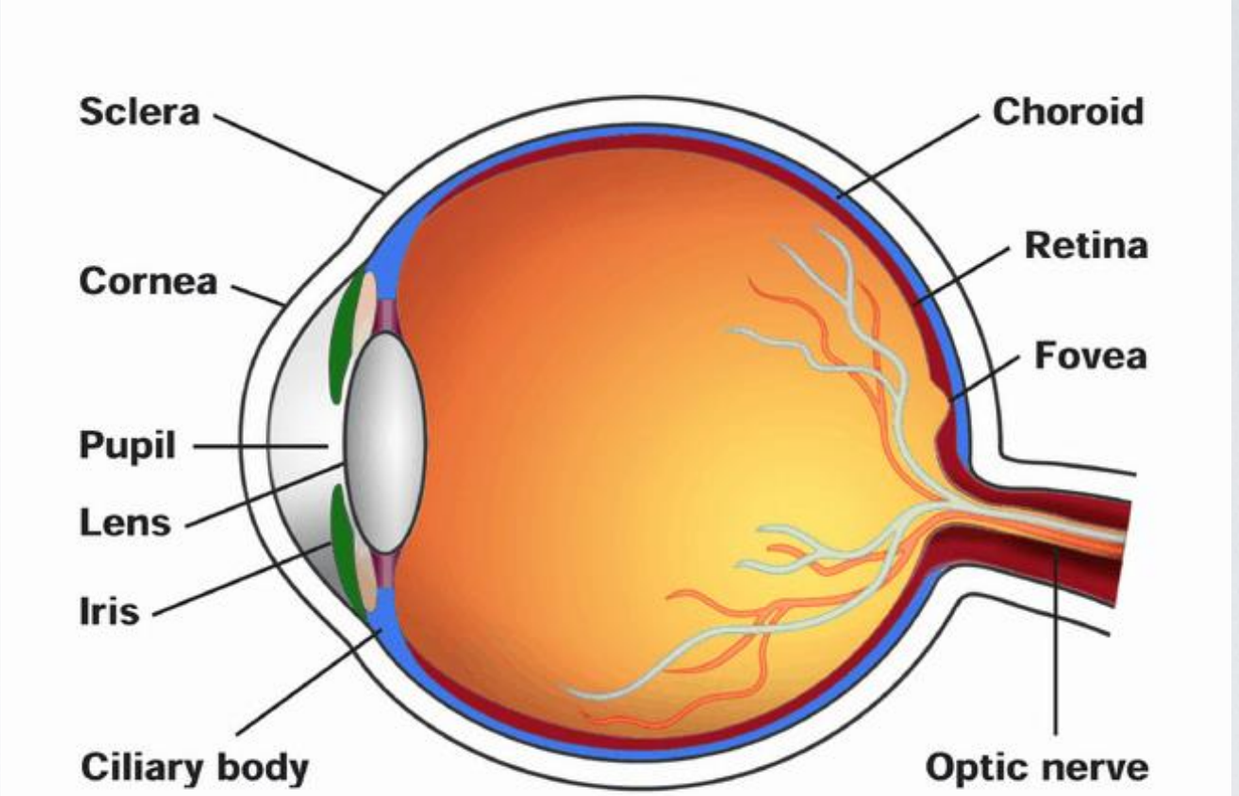


CATARACTS

what to refer and what happens then

Cataract: clouding of the natural lens

- blurring or dim vision
- glare - especially night
- haloes round lights
- double or ghost images



NHS
North West London
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Clinical Commissioning Groups

PPwT form – Cataract Surgery

This form is for clinicians to complete where North West London patients meet NWL CCGs PPwT policy. Any queries relating to this form will be responded to within 5 working days.

TO VALIDATE THIS REFERRAL, email it to: nwlccgs.ppwtifr@nhs.net only using your nhs.net email account.

PATIENT CONSENT (Applicant is requested to record patients consent within their individual health records)

I confirm that this Planned procedure with Threshold (PPwT) Form has been discussed in full with the patient.
I confirm that all the access criteria have been met and this patient is therefore eligible for NHS funded treatment.

The patient is aware that they are consenting for the PPWT Team to access confidential clinical and patient identifiable information held by clinical staff involved in their care about them as a patient to enable full consideration of this funding request.

On an annual basis, the PPWT team will conduct audits on a sample of records to ensure that the thresholds required by the PPwT Policy have been met. The audits also help to ensure that the quality of our record keeping adheres to the standards outlined by the General Medical Council and/or the Nursing and Midwifery Council (or other relevant body).

The patient identifiable information will not be shared with any other organisation and to ensure confidentiality, the patient's details will be redacted if it needs to be reviewed by the clinical Triage.

YES ☐ NO ☐ [Please indicate] Date:

Designation (Please mark one): Trust Clinician ☐ GP ☐ Other, please specify

Name of Responsible Clinician		GP Practice code	
Name of Trust/GP Practice and Address/Telephone		CCG Name	
Chosen Provider		GMC/HPC code	
NHS/PAS No:		Date of Decision to Treat:	

For GP Use

Patient Name		**D.O.B:**	(dd/mm/yyyy)
Patient Address			
Patient Phone number			
Gender		**Ethnicity**	
Preferred service provider		**Alternative provider**	
Has the patient previously visited this hospital? If yes, please specify Hospital Number			
Interpreter required? If yes, please specify the language			
Is transport required?	**Yes ☐ No ☐**	**Is patient housebound?**	**Yes ☐ No ☐**
Safeguarding issues	**Yes ☐ No ☐**	**Carer Information**	

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THRESHOLDS FOR TREATMENT: Either threshold 1 or 2 must be met

1)

a. Patient has a best ***corrected*** visual acuity of 6/9 (LogMAR 0.18) or worse in :

RIGHT EYE	YES ☐ NO ☐
LEFT EYE	YES ☐ NO ☐
BOTH EYES	YES ☐ NO ☐

AND

b. Has impairment in lifestyle such as significant effect on activities of daily living, leisure activities, and risk of falls. YES ☐ NO ☐

2)

a. Surgery is indicated for management of ocular comorbidities e.g. management of glaucoma, obscuring view of retina in retinal screening YES ☐ NO ☐

Or

b. Significant optical imbalance (anisometropia or anisekonia) following cataract surgery on the first eye YES ☐ NO ☐

Supporting Information - Please provide supporting evidence as this form is subject to clinical triage.

END OF FORM

Latest version of the policy is available at:

VA 6/9 or worse and lifestyle impaired

Prescription details from current

	Vision	Sph	Cyl	Axis	Prism H	Prism V	VA	Add	Near VA	Previous VA 13 March 2018
RE	6/20	+1.75	-1.75	90			6/7.5	+ 2.50	N8	6/7.5 +2
LE	6/10	+0.75	-1.25	95			6/6	+2.50	N5	6/6

RE Intra-Ocular Pressure
mmHg

LE Intra-Ocular Pressure
mmHg

RE Disc Appearance

LE Disc Appearance

Visual Fields

Reason for Referral **Cataract / Pseudophakia**

- Px presented complaining reduced vision in the RE
- On Ophthalmoscopy I found nuclear cataracts in both eyes (R>L)
- Please see Mr French for cataract extraction

Yours Sincerely,

Nund Vyas

GOC/GMC No.: 01-26466

Statement: The reason for this referral has been explained to the patient or guardian who agrees to it. The patient or guardian also consents to information being exchanged between the Hospital Eye Service, their General Medical Practitioner and optometrist or ophthalmic medical practitioner.

02664280

19.6

THE HILLINGDON HOSPITAL NHS FOUNDATION TRUST

COMMUNITY OPHTHALMOLOGY SERVICE
REFERRAL FORM

GP Name and Address	Optometrists name and address
BOOTS OPTICIANS 49 STATION ROAD HAYES MIDDLESEX UB3 4DE	Glendale M/C gd 19 JUN 2019 UB35DA
Phone/Fax Tel : 0208 848 0337 Fax : 0208 573 4336	Phone/Fax 02085978288
nhs.net e-mail:	nhs.net e-...

Patient's Surname, Forename and Address includ... postcode			
NHS Number		...th	07-07-50
Telephone No	07932163599	Date of Referral	19-6-19

Main Symptoms / condition requiring referral and any relevant information:

pt c/o hazy vision in left eye
lens opacity in both eyes L > R
Bothering pt
Please refer for an Ophthal Opinion

General Report, including medical history, medication, allergies etc.

pt is Diabetic

11.48

Tel (Routine): 01895279200
Fax (Routine): 01895279902
Email: thh-tr.cos@nhs.net

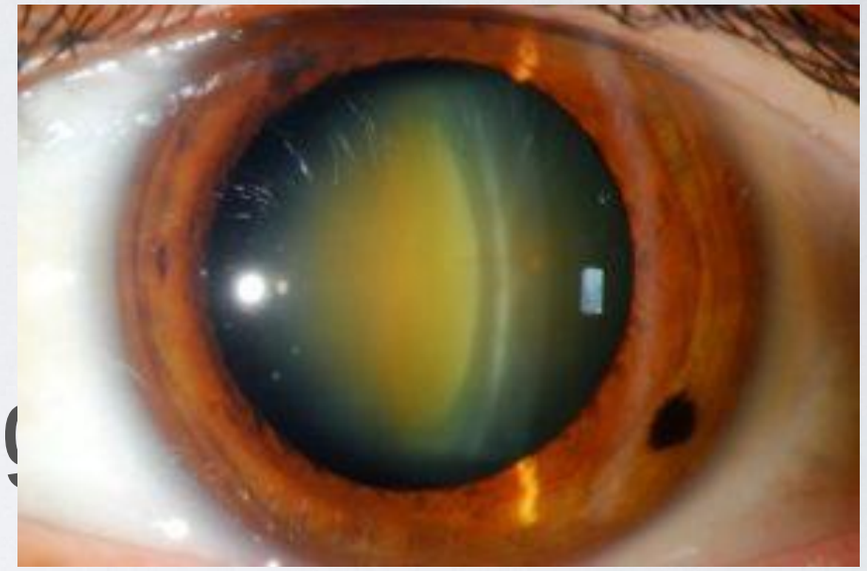
Tel (Urgent):
Fax (Urgent): 01895279247

Aetiology

- age related
- trauma - blunt or perforating
- systemic - DM
- iatrogenic - steroids
- congenital

Aetiology

- age related
- trauma - blunt or perforating



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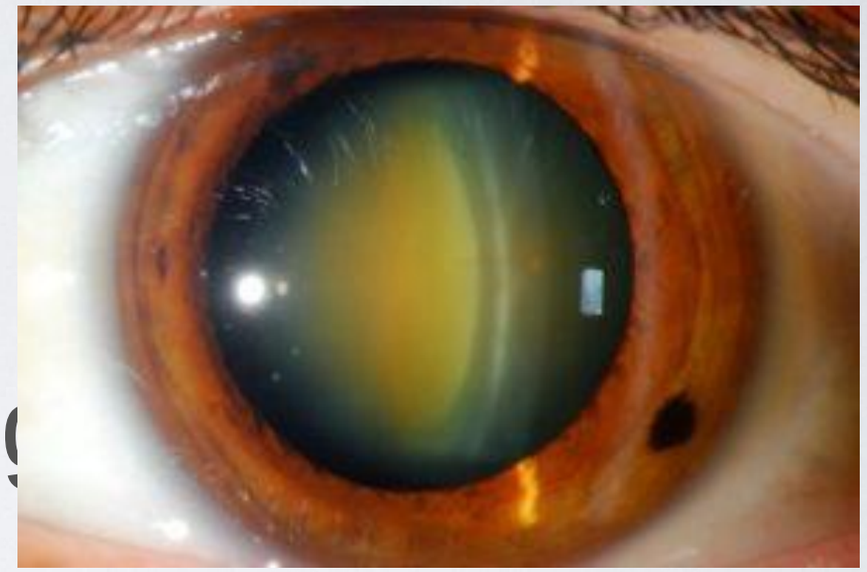

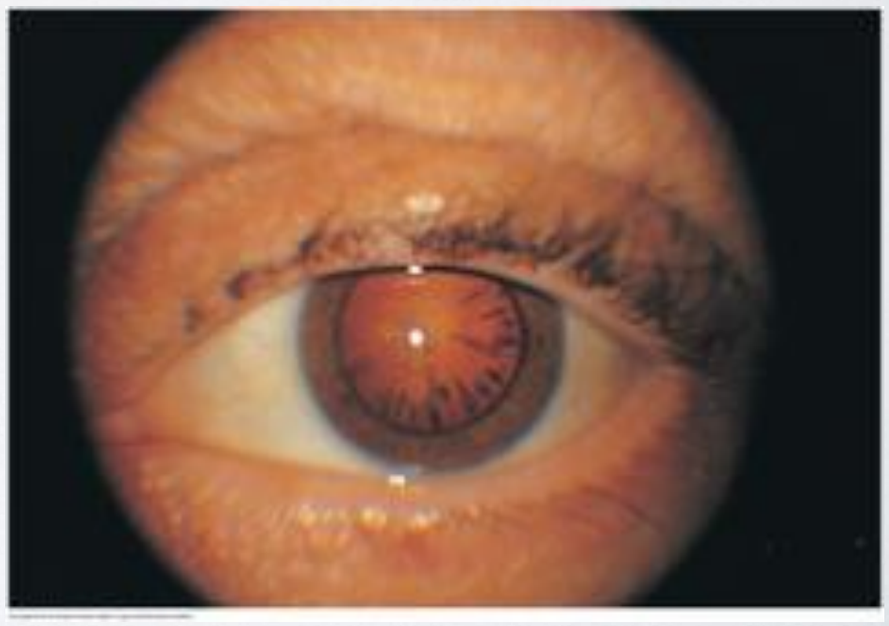

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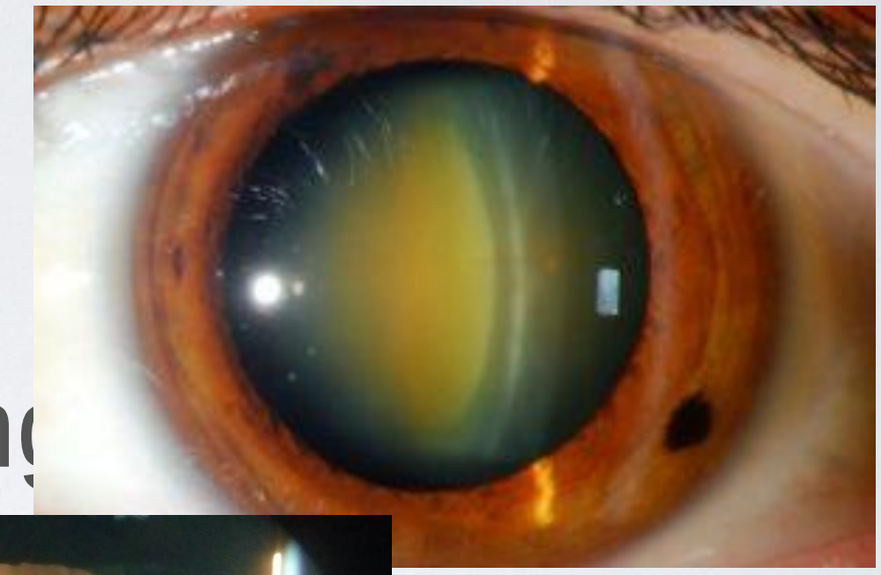

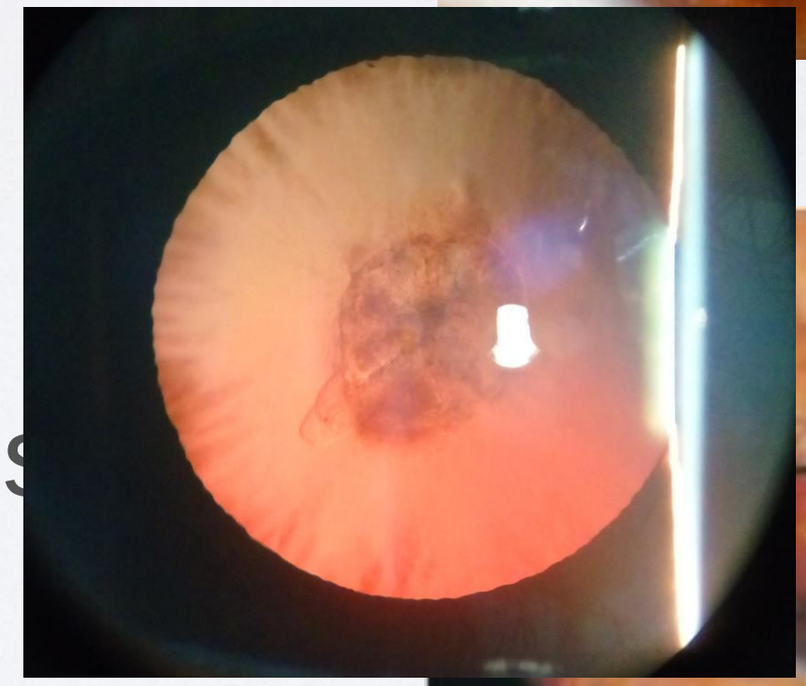

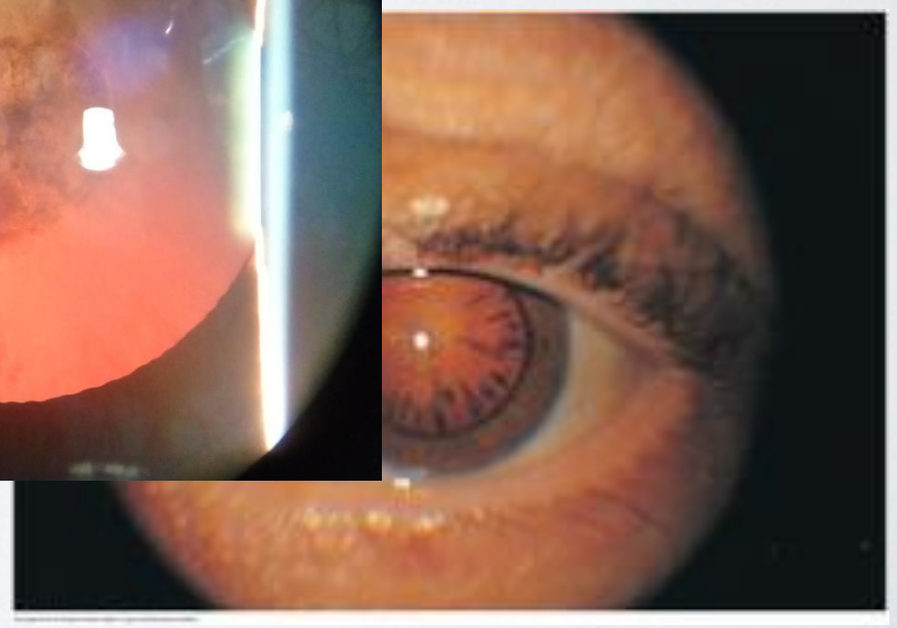

Pre-op

- Can they lie still?
- Will they bleed?

Pre-op

- Can they lie still?
- Will they bleed?
- Biometry - axial length + corneal curvature

Name:
ID
Date of Birth
Exam Date.

n: **1.3375**

ZEISS

OD
right

Preoperative Data:

AL: **22.84 mm (SD = 0.01 mm, SNR = 883.4)**
K1: **43.21 D / 7.81 mm @ 169°**
K2: **43.60 D / 7.74 mm @ 79°**
SE: **43.41 D**
Cyl.: **0.39 D @ 79°**
R: **7.78 mm (SD = 0.00 mm)**

Target Ref.: **plano**
opt. ACD: **2.94 mm**
Visual Acuity:
Refraction:
Eye Status: **phakic**

SN 60 WF		**MA 50**		**LI61se**		**AC MTA**	
A Const:	118.7	A Const:	118.9	A Const:	118.5	A Const:	115.8
IOL (D)	REF (D)	IOL (D)	REF (D)	IOL (D)	REF (D)	IOL (D)	REF (D)
24.5	-1.00	25.0	-1.16	24.5	-1.21	21.0	-1.12
24.0	-0.64	24.5	-0.80	24.0	-0.84	20.5	-0.71
23.5	-0.28	24.0	-0.44	23.5	-0.48	20.0	-0.30
23.0	**0.07**	**23.5**	**-0.09**	**23.0**	**-0.12**	**19.5**	**0.11**
22.5	0.42	23.0	0.26	22.5	0.24	19.0	0.51
22.0	0.77	22.5	0.60	22.0	0.59	18.5	0.90
21.5	1.11	22.0	0.94	21.5	0.93	18.0	1.29

Preoperative Data:

AL: **22.94 mm (SD = 0.01 mm, SNR = 150.9)**
K1: **42.72 D / 7.90 mm @ 26°**
K2: **43.60 D / 7.74 mm @ 116°**
SE: **43.16 D**
Cyl.: **0.88 D @ 116°**
R: **7.82 mm (SD = 0.00 mm)**

Target Ref.: **plano**
opt. ACD: **3.43 mm**
Visual Acuity:
Refraction:
Eye Status: **phakic**

OS
left

SN 60 WF		**MA 50**		**LI61se**		**AC MTA**	
A Const:	118.7	A Const:	118.9	A Const:	118.5	A Const:	115.8
IOL (D)	REF (D)	IOL (D)	REF (D)	IOL (D)	REF (D)	IOL (D)	REF (D)
24.5	-1.05	25.0	-1.21	24.5	-1.26	21.0	-1.15
24.0	-0.69	24.5	-0.85	24.0	-0.89	20.5	-0.74
23.5	-0.33	24.0	-0.49	23.5	-0.52	20.0	-0.33
23.0	**0.03**	**23.5**	**-0.14**	**23.0**	**-0.16**	**19.5**	**0.08**
22.5	0.38	23.0	0.21	22.5	0.19	19.0	0.48
22.0	0.72	22.5	0.56	22.0	0.55	18.5	0.87
21.5	1.07	22.0	0.90	21.5	0.89	18.0	1.27

(* = Changed manually, ! = Borderline Value)

Intraocular lenses

- monofocal
- (monovision)
- multifocal / trifocal
- extended depth of focus
- toric

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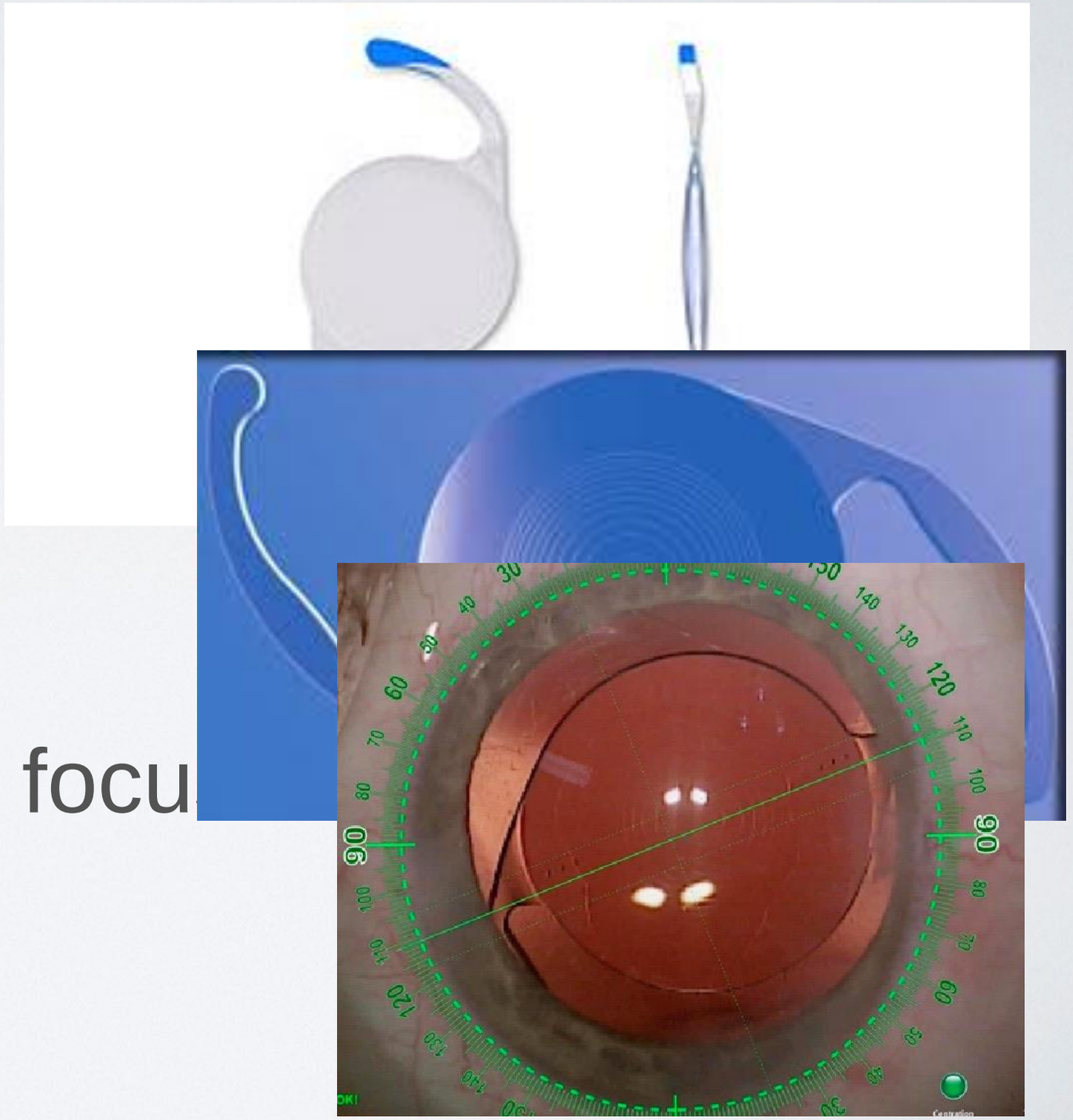


Complications

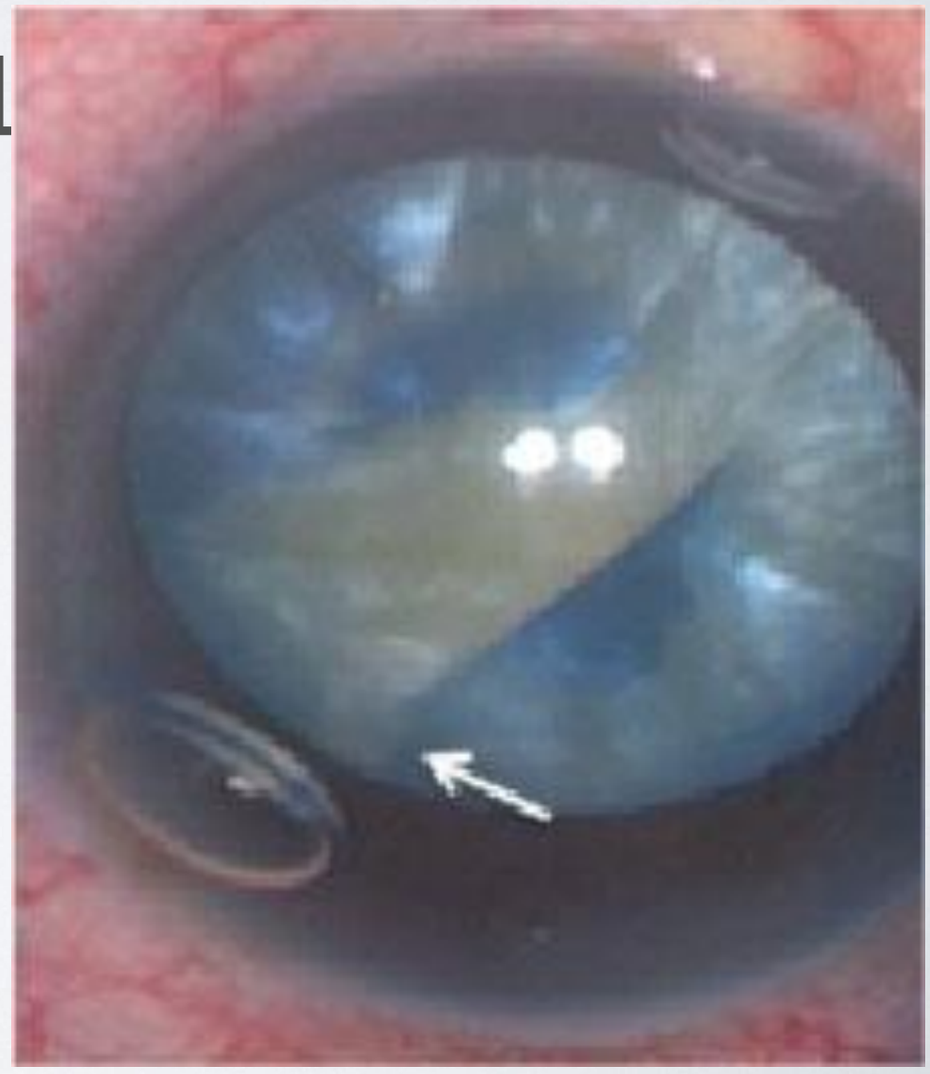
Intraoperative:

posterior capsule rupture (1.1

corneal damage

iris damage (tamsulosin)

anaesthetic issue



Complications

Postoperative:

endophthalmitis

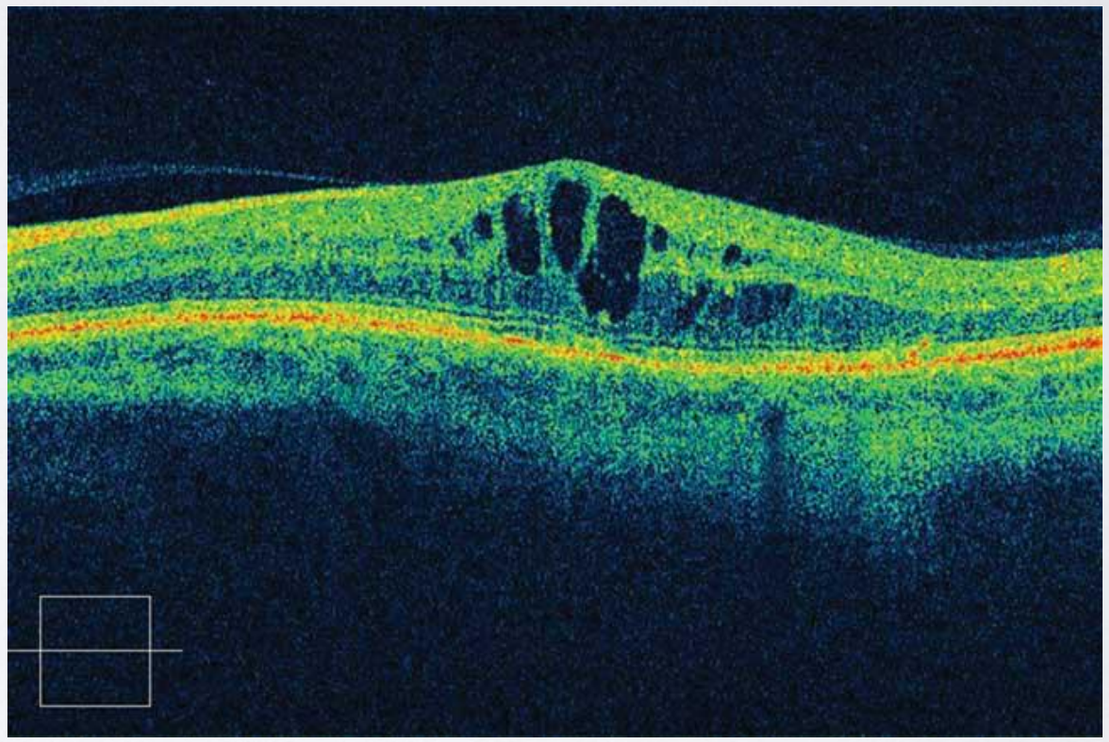
ocular surface irritation

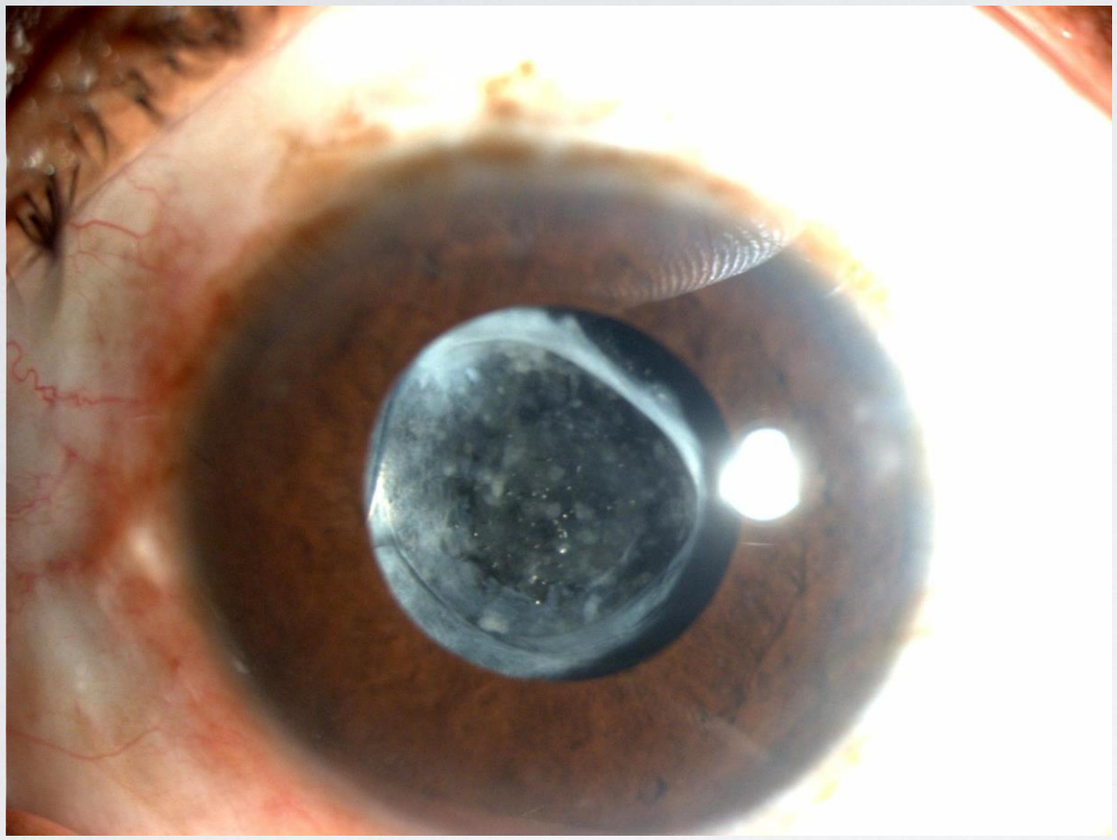
persistant uveitis / CMO

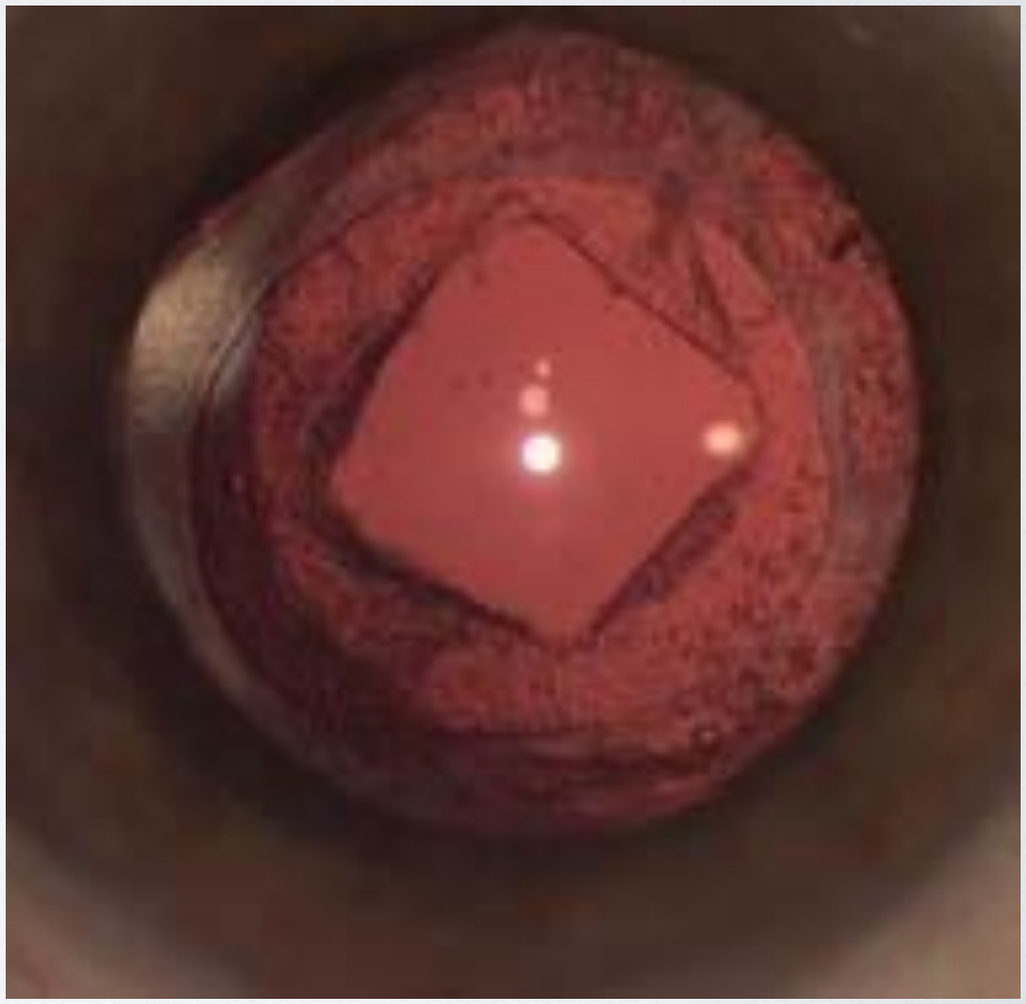
floaters / RD

dysphotopsia

posterior capsule opacification







Useful abbreviations

- BSCVA best spectacle corrected visual acuity
- PH pinhole, UA unaided
- AC anterior chamber
- IOL intraocular lens
- IOP intraocular pressure
- PCO posterior capsule opacification
- YAG laser (Nd:YAG neodymium-doped yttrium aluminium garnet)
- PCR posterior capsule rupture
- CMO cystoid macular oedema
- RDW retinal detachment warning

Thank you