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
Symptoms

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

- OSDI questionnaire
- Lid margin disease
- Tear break up time
- Conjunctival / corneal punctate staining
- Schirmer's 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 hygiene / 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
• ‘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
VA 6/9 or worse and lifestyle impaired

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

Name of Trust/GP Practice and Address/Telephone

Chosen Provider

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

Is the patient previously deceased? If yes, please specify hospital name?

Interpreter required? If yes, please specify the language

Is transport required? Yes ☐ No ☐

Is patient housebound? Yes ☐ No ☐

Safeguarding issues Yes ☐ No ☐

Carer Information

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 ☐ LEFT EYE ☐ BOTH EYES ☐

   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 glaucomas, obscuring view of retina in retinal screening

   OR

   b. Significant optical imbalance (anisometropia or aniseikonia) 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
Prescription details:

<table>
<thead>
<tr>
<th>Vision</th>
<th>Axis</th>
<th>Cyl</th>
<th>Axis</th>
<th>Prism H</th>
<th>Prism V</th>
<th>VA</th>
<th>Add</th>
<th>Near VA</th>
<th>Distance VA</th>
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<td>RE</td>
<td>0.20</td>
<td>+1.75</td>
<td>-1.75</td>
<td>60</td>
<td></td>
<td>6/7.5</td>
<td>+2.50</td>
<td>N8</td>
<td>6/7.5 -2</td>
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<tr>
<td>LE</td>
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<td>+0.75</td>
<td>-1.75</td>
<td>60</td>
<td></td>
<td>6/6</td>
<td>+2.50</td>
<td>N5</td>
<td>6/6</td>
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</table>

RE Intra-ocular Pressure:

mmHg

- Refer to Eye

LE Intra-ocular Pressure:

mmHg

- Refer to Eye

RE Disc Appearance:

- 6, WEST C

LE Disc Appearance:

- 6, 6, 6

Visual Fields:

- Normal

Reason for Referral:

- Cataract on both eye

- PxA presented complaining reduced vision in the RE

- On Ophthalmoscopy, I found nuclear cataract in both eyes (R>L)

- Please see Mr French for cataract extraction

Yours Sincerely,

Nund Vyas

GOC/GMC No.: 01-65466

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 optician, if required.
**COMMUNITY OPHTHALMOLOGY SERVICE**

**REFERRAL FORM**

<table>
<thead>
<tr>
<th>GP Name and Address</th>
<th>Optometrists name and address</th>
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<tbody>
<tr>
<td><strong>BOOTS OPTICIANS</strong></td>
<td></td>
</tr>
<tr>
<td>49 STATION ROAD</td>
<td></td>
</tr>
<tr>
<td>HAYES</td>
<td></td>
</tr>
<tr>
<td>MIDDLESEX</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glynis McKelvey</td>
</tr>
<tr>
<td></td>
<td>19 JUN 2019</td>
</tr>
<tr>
<td>Phone/Fax</td>
<td>Phone/Fax</td>
</tr>
<tr>
<td>Tel: 0208 848 0337</td>
<td></td>
</tr>
<tr>
<td>Email:</td>
<td>Farnborough CTR</td>
</tr>
<tr>
<td></td>
<td>0208 848 1560</td>
</tr>
<tr>
<td>NHS.net e-mail:</td>
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<tr>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Patient's Surname, Forename and Address including postcode</th>
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<tbody>
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<table>
<thead>
<tr>
<th>NHS Number</th>
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<tbody>
<tr>
<td>Date of Referral</td>
<td>19-6-19</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Main Symptoms / condition requiring referral and any relevant information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK eye foreign object in left eye</td>
</tr>
<tr>
<td>Less opacity in both eyes L R</td>
</tr>
<tr>
<td>Bothering PK</td>
</tr>
<tr>
<td>Please seek for an Ophthalmic opinion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Report, including medical history, medication, allergies etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK in diabetic</td>
</tr>
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<table>
<thead>
<tr>
<th>Tel (Routine): 01895279200</th>
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</thead>
<tbody>
<tr>
<td>Fax (Routine): 01895279902</td>
</tr>
<tr>
<td>Email: <a href="mailto:tht-tr.cos@nhs.net">tht-tr.cos@nhs.net</a></td>
</tr>
</tbody>
</table>
Aetiology

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

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- trauma - blunt or perforating
- systemic - DM
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Aetiology

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

- Can they lie still?
- Will they bleed?
Pre-op

- Can they lie still?
- Will they bleed?
- Biometry - axial length + corneal curvature
**Preoperative Data:**

**OD**

- 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)

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

**Refractive Data:**

<table>
<thead>
<tr>
<th>SN 60 WF</th>
<th>MA 50</th>
<th>L161se</th>
<th>AC MTA</th>
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<tr>
<td>A Const:</td>
<td>118.7</td>
<td>118.9</td>
<td>118.5</td>
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<td>IOL (D)</td>
<td>REF (D)</td>
<td>IOL (D)</td>
<td>REF (D)</td>
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<td>21.5</td>
<td>1.11</td>
<td>22.0</td>
<td>0.94</td>
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**OS**

- 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)

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

**Refractive Data:**

<table>
<thead>
<tr>
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<td>REF (D)</td>
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<td>21.5</td>
<td>1.07</td>
<td>22.0</td>
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(=* Changed manually; ! = Borderline Value)
Intraocular lenses

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

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