NHS Grampian Guidance For The Management Of Dry Eyes In Primary And Secondary Care

General Principles for Managing Symptoms and Signs of Dry Eyes

The main aim of self management and treatment is to reduce patient discomfort, improve quality of life and reduce the risk of damage to the corneal epithelium.

Identify Contributory Factors/Causes of Dry Eyes:

- Identify and treat any contributing factors for dry eyes such as meibomian gland disease, lid abnormalities such as lagophthalmos or ectropion.
- Consider the affects of systemic medications that can cause dry eyes (e.g. antihistamines, nasal decongestants, tranquilizers, certain blood pressure medicines, Parkinson's medications, contraceptives and anti-depressants).
- Consider if contact lens wear is causing irritation.
- Enquire about dryness of the mouth and other mucous membranes.
  Dry eye can be associated with immune system disorders such as Sjögren's syndrome, lupus, and rheumatoid arthritis.

Assess Symptoms and Severity:

- Mild to moderate symptoms: dryness, scratchy, gritty, foreign body sensation, burning, redness.
- Suspect severe dry eyes if:
  - Constant redness
  - Photophobia
  - Impaired vision
  - History of dry mouth
  - History of autoimmune disease/vasculitis or Sjögren's syndrome
  - Trouble keeping eyes open/blepharospasm
  - Filaments on the surface of the eye.

Provide Self Management Advice:

- Maintaining good eyelid hygiene, including cleaning of eyelids in stepwise fashion.
- Limit contact lens use to shorter periods, particularly if they cause irritation.
- Stop smoking.
- Humidifiers can help moisten the ambient air, avoid air conditioned environments.
- If using computer screen for prolonged periods of time avoid staring at the screen, have frequent breaks and place the screen below eye level.
- Avoid make up.

Self Care with Over The Counter (OTC) Products:

- Individuals with mild to moderate levels of dry eyes will often be successfully treated using OTC artificial tears without the need for referral to a GP or ophthalmologist for prescribed treatment.

Preservatives in products:

- Ocular surface damage may be exacerbated by the presence of preservatives.
- Benzalkonium chloride is a common preservative used in ocular products, and there is some evidence that it can de-stabilise the tear film and also damage the epithelial cells. However in patients with mild dry eye, these preserved drops may be well tolerated when used up to six times daily.

Preservative free products are not recommended unless:

- Patients are using eye drops more than 6 times daily (including those who use other eye drops e.g. for glaucoma).
- Patients have a known allergy to the preservative.
- Contact lens wearers.
- Following surgery in which the corneal integrity is breached.
- There is known Ocular Surface Disease.

Where a preservative free product is required multi-use systems should be used as these are generally more cost effective. The prescribing of single use vials/doses is not supported.

Treatment Choice:

Preparations should be used in the order described below, trying alternative products if the first line option fails.

- A combination of the ease of use of the product (medication bottle) for the patient, severity of symptoms and co-existing disease and cost effectiveness should be considered when choosing the most appropriate product for the patient.
- There are significant price differences between dry eye products – information regarding current pricing can be accessed in the drug tariff, part 3 appliances, eye products.
- There are also differences regarding date of expiry following opening, these have been annotated beside products, e.g. *(6M)* = 6 months, *(28*D) = 28 days from date of opening.

Mild to moderate symptoms (Primary and Secondary Care)
First Line treatments

Preserved Eye Drops	Preservative Free Options
Hypromellose 0.3% *(1M)*	Carbomer 0.2% (Xailin Gel® *(28D),* disappearing preservative)
Polyvinyl alcohol 1.4% (Liquifilm Tears®*(28D)*)	Sodium hyaluronate 0.1% (Hylo-Tear® *(6M)*), 0.15% (Hyabak® *(3M)*), 0.18% (Vismed® *(3M)*)
Carbomer 0.2% (gel) (*1M*)	Paraffin ointments (Xailin Night® *(28D),* VitA-POS® *(6M)*)
Hypromellose 0.3% + Dextran 0.1% (Tears Naturale® *(1M)*)	

- Hypromellose 0.3% is the traditional choice of treatment and should be appropriate for most people with mild dry eye syndrome.
- Treatments containing polyvinyl alcohol or carbomers require less frequent administration than hypromellose, however they can be less well tolerated.
- Individuals with aqueous tear-deficient dry eye often benefit from paraffin-based ointments at night. Paraffin products should not be used during the day as they can be uncomfortable and blur vision. Paraffin products should not be used with contact lenses.

- After a six to eight week trial of first-line agents second-line products may be considered.
- Compliance/dispensing aids should be considered for some products in people with disability with hands or dexterity issues (e.g. Rheumatoid arthritis) e.g. Compleye® for use with Hylo range, Opticare® and Opticare® Arthro.
- Optometrists should only refer patients to their GP for ongoing treatment following successful treatment. Sufficient information must be provided regarding their condition, product choice, treatment plan and follow up.
- Failure of second-line agents after a further six to eight weeks should prompt referral to a specialist.
- Specialists may recommend products such as acetylcysteine or ciclosporin for severe symptoms.

Severe Symptoms/Signs (Primary and Secondary Care)
These are generally preservative free options

Second Line treatments

Eye Drops	Eye Ointments
Sodium hyaluronate 0.2% (Xailin HA® *(60D)*, Hylo-Forte® *(6M)*)	Paraffin ointments (Xailin Night® *(28D),* VitA-POS® *(6M)*)
Sodium hyaluronate 0.4% (Clinitas® 0.4% single dose units)	Carbomer 0.2% (Xailin Gel® *(28D)* disappearing preservative)
	Yellow soft paraffin + Anhydrous Lanolin (Simple Eye Ointment® *(1M)*)

For Evaporative Dry Eyes (Secondary to Meibomian gland disease)

Optive Plus® *(6M)* (carmellose)
Systane Balance® *(6M)*

Non resolving severe symptoms (Treatment to be initiated by a Hospital Specialist although may be continued in primary care)

Acetylcysteine 5% eye drops for corneal filaments (Ilube® *(28D)*)
Ciclosporin 0.1% eye drops (Ikervis® *(single dose unit)*)

Further information on a range of eye conditions and their treatment can also be accessed on the Community Eye Care Website and App which contain a wide range of information and guidance for the treatment of eye conditions.

References:
Scottish Dry Eye Guidelines Version 1.1 September 2018
PrescQippp Eye Preparations B202 March 2018 2.0
Scottish Drug Tariff, Part 3 appliances, Eye Products September 2019

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