PRESCRIBING GUIDELINES FOR DRY EYE SYNDROME

Dry Eye Syndrome.

Dry Eye Syndrome is generally classified according to a combination of symptoms and signs. It has been classified as mild, moderate & severe based on both symptoms & signs, but with an emphasis on symptoms over signs. Due to the nature of dry eye disease, this classification is imprecise because characteristics at each level overlap:

MILD: Irritation, soreness, burning or intermittent blurred vision. It is often difficult to diagnose dry eye definitively in its mild form because of inconsistent correlation between reported symptoms and clinical signs as well as the relatively poor specificity &/or sensitivity of clinical tests. Because most dry eye conditions have a chronic course, repeated observation & reporting of symptoms over time will allow clinical diagnosis of dry eye in most cases.

MODERATE: Increased discomfort and frequency of symptoms, and the negative effect on visual function may become more consistent.

SEVERE: Increasing frequency of symptoms which may become constant, as well as potentially disabling visual symptoms.

Dry Eye Syndrome is also loosely categorized as aqueous tear deficiency and evaporative tear deficiency, and both of these conditions may be present in patients with the disease.

Ways of helping patients with dry eyes:

Ensure the patient has good eyelid hygiene.	Limit contact lens use to shorter periods, if at all possible.
If clinically appropriate, stop medications that can exacerbate dry eyes: Antihistamines, TCAs, SSRIs, diuretics, beta-blockers, isotretinoin, possibly, anxiolytics, anti-psychotics, alcohol.	Suggest use of a humidifier to moisten ambient air.
Highlight the effect of cigarette smoke on dry eyes and encourage the patient to stop smoking.	Check compliance. Keep reminding patients to use their eye drops regularly!
If using a computer for long periods, suggest that the patient places their monitor at or below eye level, avoids staring at the screen and takes frequent breaks.	

Preservative toxicity from eye drops.

Benzalkonium chloride (BAK) is the most frequently used preservative in topical ophthalmic preparations, as well as in topical lubricants. Its epithelial toxic effects are well established. The toxicity of BAK is related to its concentration, frequency of use, the level or amount of tear secretion, and the severity of the ocular surface disease. For patients with moderate to severe dry eye disease, the absence of preservatives is of more critical importance than the particular polymeric agent used in ocular lubricants. The ocular surface inflammation associated with dry eye is exacerbated by preserved lubricants and, if patients have more than one eye condition for which they are using eye drops, their potential exposure to preservatives is increased.

Preservative-free formulations are absolutely necessary for patients with severe dry eye with ocular surface disease and impairment of lacrimal gland secretion, or for patients on multiple, preserved topical medications for chronic eye disease. In a patient with mild dry eye, preserved drops are often well tolerated when used 4-6 times a day or less.

PRESERVATIVE FREE formulations should only be prescribed on advice of an Ophthalmologists for patients with:	
- True preservative allergy (as diagnosed by specialist)	- Soft contact lenses wearers
- Evidence of epithelial toxicity from preservatives	- Long term treatment >3/12 or frequency > 6 times daily

Adapted from Moorfields Eye Hospital NHS Foundation Trust Guidance for use by Milton Keynes Joint Formulary
Author: Dupe Fagbenro, Principal Pharmacist MKPAG; Checked by: Bimal Kumar, Consultant Ophthalmologist; Date written: June 2016; Last reviewed: Oct 2018; Review date: Oct 2021

Milton Keynes Clinical Commissioning Group NHS

Central and North West London NHS
NHS Foundation Trust

Milton Keynes Community Health Services

Milton Keynes University Hospital NHS
NHS Foundation Trust

When to refer:

Refer to specialist if symptoms of mild dry eye fail to respond to at least 2 treatment options for 'Mild Dry Eye' listed below or symptoms of moderate dry eye fail to respond to Clinitas 0.2% gel and Celluvisc 1% Single Dose Units. Refer all patients with severe dry eye. Prescribers should have a lower threshold for referral of unresponsive contact lens wearers.

MILD dry eye (Primary care)

1. **Hypromellose 0.3% eye drops**
   - **Evolve Hypromellose®** if preservative-free option is required

2. **Carbomer 980 0.2% eye gel (Clinitas Carbomer gel®)**
   - Suitable for contact lens wearers

3. **Carmellose 0.5% eyedrops (Optive eye drops®)**
   - Contains preserving system which biodegrades on contact with eye
   - 6 month expiry once open
   - Suitable for contact lens wearers

MODERATE dry eye (Primary/Secondary care)

1. **Carbomer 980 0.2% eye gel - Clinitas Carbomer gel®**
   - Suitable for contact lens wearers

2. **Carmellose 1% - Celluvisc 1% SDU®**
   - Preservative-free
   - Suitable for contact lens wearers

3. **Sodium hyaluronate 0.1% - Hylo-Tear 0.1% eye drops®**
   - Preservative-free
   - 6 month expiry once open
   - Suitable for contact lens wearers

SEVERE dry eye (Secondary care)

1. **Sodium hyaluronate 0.1% - Hylo-Tear 0.1% eye drops®**
   - Preservative-free
   - 6 month expiry once open
   - Suitable for contact lens wearers

2. **Sodium hyaluronate 0.2% - Hylo-Forte 0.2% eyedrops®**
   - Preservative-free
   - 6 month expiry once open
   - Suitable for contact lens wearers

NOTE

The Hylo range and Optive eye drops have a 6-month expiry. Advice NOT to put them on a repeat prescription

VitA-POS® eye ointment (Liquid Paraffin Ointment) Can be used at <u>any stage</u> of dry eye treatment in combination with any of the above; blurs vision; for use at night; <u>not</u> suitable with contact lenses

NOTE: Please note it is ONLY more cost-effective to start with a preparation with a 6 month expiry if patient uses it <u>less than</u> four times a day

Other ocular lubricant available on MK Formulary:

RESTRICTED

All Amber medicines are Amber 2

- Sodium Hyaluronate 0.4% - Clinitas 0.4% Single Dose Units (SDU)® for Sjogrens dry eye (for consultant initiation only)
- Acetylcysteine 5%, 10% eye drops (Ilube® 5%) for hospital specialist initiation in dry eye conditions associated with mucus production)
- Systane eye drops® for artificial eyes
- Optive Plus eye drops® for use in evaporative dry eyes ((for hospital specialist initiation)
- Sodium Chloride 0.9% Eye drops Minims® for moistening of contact lenses and irritation including first-aid removal of harmful substances.
- **Ciclosporin preparations** only to be initiated by external diseases / corneal clinicians (In line with NICE TA369 Dec 2015)

Adapted from Moorfields Eye Hospital NHS Foundation Trust Guidance for use by Milton Keynes Joint Formulary
Author: Dupe Fagbenro, Principal Pharmacist MKPAG; Checked by: Bimal Kumar, Consultant Ophthalmologist; Date written: June 2016; Last reviewed: Oct 2018; Review date: Oct 2021