

## 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.

### 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.

### Other ways of helping patients with dry eyes:

- 1) Ensure the patient has good eyelid hygiene.
- 2) Limit contact lens use to shorter periods, if at all possible.
- 3) If clinically appropriate, stop medications that can exacerbate dry eyes: Antihistamines, TCAs, SSRIs, diuretics, beta-blockers, isotretinoin, possibly, anxiolytics, anti-psychotics, alcohol.
- 4) Highlight the effect of cigarette smoke on dry eyes and encourage the patient to stop smoking.
- 5) Suggest use of a humidifier to moisten ambient air.
- 6) 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.
- 7) Check compliance. Keep reminding patients to use their eye drops regularly!

Component	10ml bottle / 10gr tube	10ml bottle Preservative Free / 5gr tube Preservative Free	Comments
Eye Drops - <b>Hypromellose</b>	Generic 0.3%-0.5%-1% 10ml	<b>Evolve Hypromellose</b> 0.3% (formerly Lumecare Evolve Hypromellose 0.3%) 10ml	If PF hypromellose is needed (used more than 4 times a day), patient needs to be reviewed and a different agent prescribed
Eye Gel - <b>Carbomer</b>	<b>Clinitas Carbomer</b> gel 10gr <b>Lumecare Carbomer</b> 0.2% gel 10gr		
Eye Drops - <b>Carmellose</b>		<b>Evolve Carmellose</b> 0.5% (formerly Lumecare Evolve Carmellose 0.5%) 10ml	
Eye Drops - <b>Sodium Hyaluronate</b>	<b>Blink Intensive Tears</b> 0.25% 10ml	<b>HydraMed</b> 0.2% 10ml <b>Hylo-Forte</b> 0.2% – Initiation in Secondary Care only 10ml	Hylo-Forte – 6 month expiry. 300 drops per container, Prescribe 1 bottle every two months.
Eye Ointment - <b>Paraffin Based</b>		<b>HydraMed Night</b> 5gr <b>Xailin Night</b> 5g	For night use only

- These products are used 3-4 times a day or as required. Please note it is **ONLY** more **cost-effective** to start with a preparation with a **6 month expiry** if patient uses it **less than four times a day**.
- **Optive Plus** 0.5% / **Systane Balance** are reserved for lipid replacement in Meibomian Gland Dysfunction (MGD), e.g. blepharitis. **Initiation in Secondary Care only.**
- **Sodium chloride 5%** should be prescribed **only in the hospital** for 2-3 months until corneal transplant occurs.
- **Ciclosporin eye drops** should be started in **Secondary Care** for treating severe keratitis in adult patients where immunomodulatory effect is needed, with dry eye disease that has not improved despite treatment with tear substitutes.

**PRESERVATIVE FREE** formulations should be prescribed for patients with:

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| - True preservative allergy (as diagnosed by specialist) | - Evidence of epithelial toxicity from preservatives                      |
| - Soft contact lenses wearers                            | - Long term treatment >3/12 or frequency > 4 times daily of any eye drops |

**OTHER** ocular lubricants are available over the counter