





Dry Eye Syndrome Pathway and Prescribing Guidance

Dry eye syndrome is a chronic condition characterised by inflammation of the ocular surface and reduction in quality and/or quantity of tears (Javadi & Feizi 2011). In these guidelines, dry eye syndrome has been classified as mild to moderate or severe based on both symptoms and signs, but with an emphasis on symptoms over signs.

Mild dry eye syndrome symptoms include irritation, soreness, burning and intermittent blurred vision.

Moderate dry eye syndrome includes increased discomfort and frequency of these symptoms, and the negative effect on visual function may become more consistent.

Severe dry eye syndrome is characterised by an increasing frequency of symptoms which may become constant, as well as potentially disabling visual symptoms. For Information the following survey may assist in determining the severity of dry eye: <u>OSDI (Ocular Surface Disease Index) survey.</u>

ALL patients with SEVERE symptoms should be referred to a specialist.

Patients presenting with mild to moderate dry eye syndrome should be given literature on self-care. Where appropriate, they should be advised to purchase a dry eye product over the counter (OTC) to manage their symptoms. This also includes tired eyes, hay fever symptoms, contact lens and old age-related dry eyes.

NHS Wakefield Health & Care Partnership, NHS Kirklees Health & Care Partnership and The Mid Yorkshire Teaching NHS Trust **do not support the routine prescribing of dry eye products for mild to moderate dry eye syndrome in line with <u>NHS England guidance</u>.**

Prescribing of dry eye products is supported where the use of dry eye lubrication is essential to preserve sight function for:

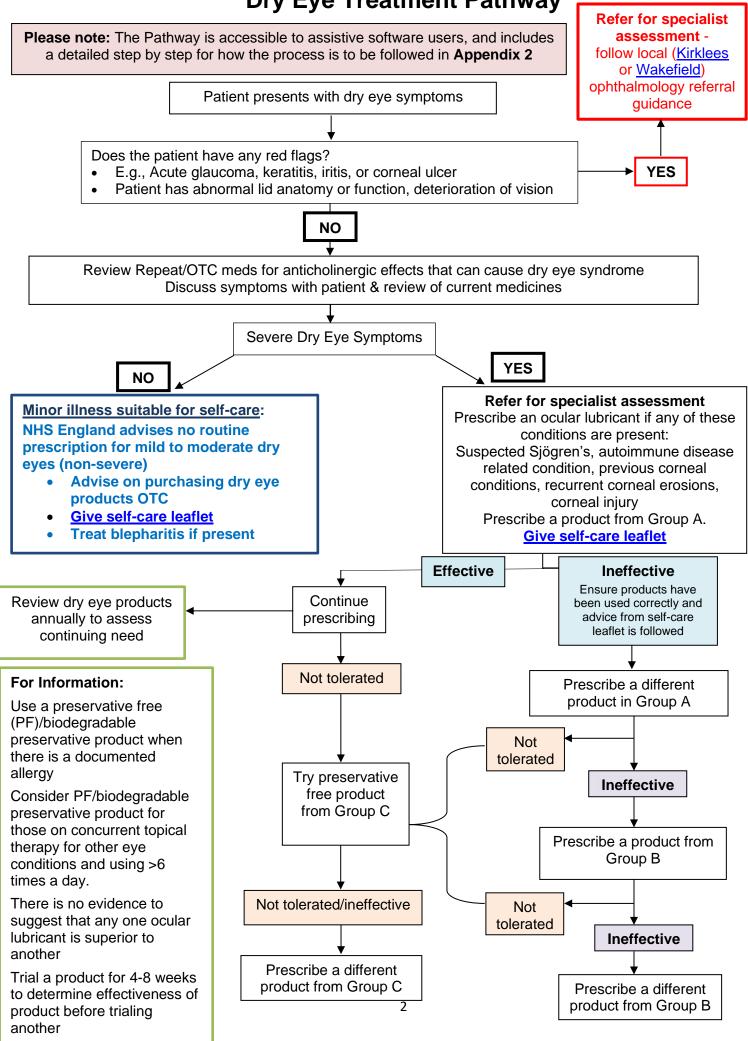
- Severe ocular surface disease (OSD) caused by the following conditions: Sjögren's syndrome, auto immune disease (e.g., rheumatoid arthritis, ulcerative keratitis), neurotrophic cornea
- Previous corneal conditions, recurrent corneal erosions, corneal injury (<u>NICE</u>)

Refer to the Dry Eye Pathway and the Dry Eye Formulary

General management advice for all patients

- Symptoms of dry eye syndrome can include dryness, irritation, discomfort, and intermittent blurring of vision.
- Symptoms typically worsen with prolonged visual tasks, exposure to wind and air conditioning.
- The aims of treatment are to restore the ocular surface and improve ocular comfort.
- Most cases of sore tired eyes resolve themselves.
- Patients should be encouraged to manage both dry eyes and sore eyes by implementing some selfcare measures such as good eyelid hygiene and avoidance of environmental factors alongside treatment.

Dry Eye Treatment Pathway



Dry Eye Formulary

Prescribing principles:

- A combination of education and associated self-care +/- over the counter (OTC) purchased ocular lubricants should be the mainstay of patient care for uncomplicated mild to moderate dry or sore/tired eyes.
- Ocular lubricants should **NOT** be routinely prescribed for this indication.
- Where Primary care prescribers are considering prescribing dry eye treatments (for example for severe dry eye or in relation to exceptions to the <u>NHS England guidance</u>), the products listed in the table below should be chosen as our locally agreed preferred options and should be prescribed by brand.
- While patients may receive different brands of ocular lubricant from Secondary care (or other providers), any request for Primary care continuation/to prescribe should be in generic drug form to allow one of the locally preferred options below to be prescribed (except where stated). This system will ensure best value for money for the NHS.
- To note that being exempt from paying a prescription charge does not automatically warrant an exception to the guidance in terms of prescribing ocular lubricants.
- Paraffin based dry eye ointments can be used at night where dry eye symptoms are impacting quality of sleep/leading to discomfort in the morning. They may be uncomfortable and blur vision, so they should not be used during the day and never with contact lenses.

Group A – First Line - For bedtime application with Group A, B, or C drops

Generic	Brand	Drug Tariff (Oct 2023)	In use expiry	Additional advice and Information
Paraffin based ointments* PF	Hydra Med Night®	£2.38 (5g)	90 days	Can be used at bedtime following use of daytime drops
				*Paraffin based ointments are flammable and care should be taken to avoid burns e.g., smoking, close contact with naked flames etc.
Paraffin based ointments* PF	Hylo-Night®	£2.75 (5g)	6 months	Can be used at bedtime following use of daytime drops
				*Paraffin based ointments are flammable and care should be taken to avoid burns e.g., smoking, close contact with naked flames etc.
Paraffin based ointments* PF	Xailin Night®	£2.70 (5g)	60 days	Can be used at bedtime following use of daytime drops
				*Paraffin based ointments are
				flammable and care should be taken to avoid burns e.g., smoking, close contact with naked flames etc.

Generic	Brand	Drug Tariff (Oct 2023)	In use expiry	Additional advice and Information
Hypromellose 0.3% eye drops (not in Drug tariff (DT) do not prescribe generically)	Teardew® 0.3%**	£0.99 (10ml)	1 month	Suitable for use with contact lenses **Contains preserving system that biodegrades on contact with eye or exposure to light.
Hypromellose 0.3% eye drops (not in DT do not prescribe generically)	Evolve® Hypromellose 0.3% (PF)	£2.03 (10ml)	3 months	Suitable for use with contact lenses
Hypromellose 0.5% eye drops	AaproMel® 0.5%	£0.97 (10ml)	1 month	Suitable for use with contact lenses Apply before inserting contact lenses
Hypromellose 0.5% eye drops	AacuLose® Hypromellose 0.5%	£0.99 (10ml)	1 month	Suitable for use with contact lenses. Requires either removal before use with contact lenses or wait 10 minutes after use before inserting contact lenses
Carbomer 0.2% eye gel	Clinitas®	£1.49 (10g)	28 days	Can be administered for nighttime use with other drops in the daytime Requires either removal before use with contact lenses or wait 30 minutes after use before inserting contact lenses
Carbomer 0.2% eye gel	Evolve® Carbomer 980 (PF)	£2.87 (10g)	3 months	Can be administered for nighttime use with other drops in the daytime Suitable for use with all types of contact lenses
Polyvinyl alcohol 1.4% eye drops	Sno Tears®	£1.06 (10ml)	1 month	Take out contact lenses before using Sno Tears, and then wait for 15 minutes after application before putting them back in

Group B – Second Line

Generic	Brand	Drug Tariff (Oct 2023)	In use expiry	Additional advice and Information
Branded generic long-chain polymer sodium hyaluronate 0.2% PF	Eyeaze® (PF)	£4.15 (10ml)	90 days	Suitable for use with contact lenses. Contains phosphate buffer
Branded generic long-chain polymer sodium hyaluronate 0.2% PF	Hy-Opti® (PF)	£4.78 (12ml)	180 days	Suitable for use with contact lenses
Branded generic long-chain polymer sodium hyaluronate 0.2% PF	Evolve® HA (PF)	£5.99 (10ml)	90 days	Suitable for use with contact lenses
Branded generic long-chain polymer sodium hyaluronate 0.2% PF	Hylo Forte® (PF)	£9.50 (10ml)	6 months	Prescribing of Hylo-Forte® may be continued under specialists' advice ONLY. If the locally recommended equivalent alternative 0.2% sodium hyaluronate options have been trialed and are not suitable (not tolerated/ ineffective - <u>MHRA Yellow Card</u> required?)
Hydroxypropyl guar eye drops	Tearmos® **	£4.50 (10ml)	1 month	Suitable for use with contact lenses **Contains preserving system that biodegrades on contact with eye or exposure to light.
Hydroxypropyl guar eye drops	Systane®	£4.78 (10ml)	1 month	Not suitable for use with contact lenses
Carmellose 1% eye drops unit dose PF	Eyeaze®	£1.81 (10ml)	90 days	Suitable for use with contact lenses Apply before inserting contact lenses
Carmellose 1% eye drops unit dose PF	Celluvisc®	£3.00 (30x0.4ml)	Single use	Suitable for use with contact lenses Contact lenses should be removed before each application and may be inserted after 15 minutes
Branded generic sodium hyaluronate 0.1% PF	VIZhyal® (PF)	£4.10 (10ml)	6 months	Suitable for use with contact lenses Contains phosphate buffer

Generic	Brand	Drug Tariff (Oct 2023)	In use expiry	Additional advice and Information
Branded generic sodium hyaluronate 0.1% PF	Eyeaze® (PF)	£4.15 (10ml)	90 days	Suitable for use with contact lenses Contains phosphate buffer

Group C – Preservative Free and Biodegradable Preservatives

Generic	Brand	Drug Tariff (Oct 2023)	In use expiry	Additional advice and Information
Hypromellose 0.3% 10ml PF bottle	Evolve® Hypromellose (PF)	£2.03 (10ml)	3 months	Suitable for use with contact lenses Multi-dose bottle.
Branded generic long-chain polymer sodium hyaluronate 0.2% (PF)	Eyeaze® (PF)	£4.15 (10ml)	90 days	Contains phosphate buffer Suitable for use with contact lenses
Branded generic long-chain polymer sodium hyaluronate 0.2% (PF)	Hy-Opti® (PF)	£4.78 (10ml)	180 days	Suitable for use with contact lenses
Branded generic long-chain polymer sodium hyaluronate 0.2% (PF)	Evolve® HA (PF)	£5.99 (10ml)	3 months	Suitable for use with contact lenses
Carmellose 1% eye drops unit dose PF	Celluvisc® (PF)	£3.00 (30x0.4ml)	Single use	Suitable for use with contact lenses Contact lenses should be removed before each application and may be inserted after 15 minutes
Carmellose 1% eye drops unit dose PF	Eyeaze® Carmellose (PF)	£1.81 (10ml)	3 months	Eyeaze Carmellose 1% eye drops are compatible with contact lenses; however, drops need to be applied to eye/s before inserting contact lenses

Specialist Initiation

Generic	Brand	Drug Tariff (Oct 2023)	In use expiry	Additional advice and Information
Generic	Fluorometholone 0.1%	£1.71 (5ml)	1 month	When inflammation is present in the eye Contains benzalkonium chloride which is irritant to the eye and could cause discoloration of soft contact lenses. Avoid contact with soft contact lenses. Remove contact lenses before use and wait for at least 15 minutes before reinsertion.
Generic	Prednisolone 0.5%	£2.57 (10ml)	1 month	When inflammation is present in the eye Contains benzalkonium chloride as a preservative and, therefore, should not be given to treat patients who wear soft contact lenses.
Ciclosporin 1mg/ml	Ikervis®	£72 (30x0.3ml)	1 month	Where requiring repeated and frequent courses of ocular lubricants (artificial tears) in line with NICE TA369 Patients wearing contact lenses have not been studied. Careful monitoring of patients with severe keratitis is recommended. Contact lenses should be removed before instillation of the eye drops at bedtime and may be reinserted at wake-up time
Acetylcysteine 5% eye drops	llube drops	£59.99 (10ml)	1 month	Short term use Filaments present Contains benzalkonium chloride which may cause eye irritation or discolour soft contact lenses. Avoid contact with soft contact lenses. Patients should be instructed to remove contact lenses prior to application and wait at least 15 minutes before reinsertion

Products listed in the above tables do not contain phosphate buffers unless indicated and are only preservative free (PF) where stated

Dry Eye Self-Care Leaflet

You have been given this leaflet because you have mild or moderate dry eye symptoms. Dry eye syndrome is a common condition that occurs when the eyes do not make enough tears, or the tears evaporate quickly leading to the eyes drying out and becoming red, swollen, and irritated.

Dry eyes can be caused by many factors including aging, laser eye surgery, hormonal changes and wearing contact lenses. Reading, writing, or working on a computer (you may blink less often) may also lead to the eyes becoming dry. Side-effects of some medicines may contribute to dry eye symptoms, as well as medical conditions such as blepharitis, Sjögren's syndrome, contact dermatitis or arthritis. Additionally, environmental factors such as exposure to the sun, wind, or a dry climate are also a known cause.

Treatment for this is available "over the counter" (OTC) from pharmacies and supermarkets. Most people can treat themselves with OTC products and self-care measures.

Managing Dry Eyes

In addition to dry eye products, there are practical steps you can take to help relieve your symptoms:

1. Apply a warm compress (this loosens the oil produced by glands):

- Boil water and leave it to cool to room temperature.
- Soak a clean flannel or eye pad in the water and place on the closed eyes for 10 minutes.
- Gently massage the upper and lower lids in an up and down motion encouraging flow of oils from the lids into the tear film
- Dry Eye Masks are available but should be self-funded; speak with your optician or pharmacy for more information. These masks can be warmed in a microwave before use.
- 2. **Maintain good eyelid hygiene**: Wipe away any crusts or grime that may have accumulated if you have blepharitis. Your optometrist (optician) or pharmacist can tell you how to do this.
 - Eyelid-cleaning solutions and wipes are available to buy, or you can try making one at home. For a homemade solution, fill a bowl with one pint of boiled water and allow it to cool to a warm temperature. Then add a teaspoon of bicarbonate of soda.
 - Soak clean cotton wool in the solution and remove crustiness from around the eyelids and eyelashes, repeat if necessary, using a clean piece of cotton wool.

3. Environmental & Other Factors:

- Avoid smoky environments and if you are a smoker, you may wish consider seeking stop smoking advice.
- Avoid using eye make-up which can block glands that lubricate your eyes.
- Limit contact lens use to shorter periods, especially if they cause irritation.
- Keep your eyes protected from wind, dust, and aerosols.
- Use a humidifier to moisten the surrounding air and avoid too much time in places with air-conditioning.
- If you use a computer for lengthy periods, place your monitor at or below eye level, avoid staring at the screen, and take frequent breaks.
- Try to have a healthy balanced diet, with flax seed as well as foods containing omega 3 and 6 fatty acids such as oily fish, nuts, seeds, eggs, green leafy vegetables, etc. Drink plenty of fluids to keep hydrated.

Dry Eye Treatments

Treatments for dry eyes are called artificial tears, tear replacement and "ocular lubricants" – they usually come in the form of eye drops or gels. If you still have dry eyes after trying the self-help methods above, you can try any of the treatments listed in the table below.

You can buy these from your community pharmacy or at the supermarket. Your pharmacist can advise you on which type of eye product is best for you. Finding an effective treatment can vary between people. If one does not work, then others can be tried until you find the right one for you. An effective trial of one product would be for at least 6 to 8 weeks before you should seek an alternative treatment.

Important: If you are advised to purchase treatments to relieve the symptoms of dry eye, it is important that you use these as directed and as regularly as recommended for them to be effective. To manage your symptoms, you will need to embed this self-care routine into daily life. Often not using the products regularly enough or not doing the heat/cleanse/massage because they are complicated or too time consuming can result in a worsening of the problem.

For more information on understanding dry eye and help managing your symptoms, see the following leaflet from the Royal College of Ophthalmologists <u>https://www.rcophth.ac.uk/wp-content/uploads/2020/05/Understanding-Dry-Eye_2017.pdf</u>. Leaflet on blepharitis from Moorfield Eye Hospital <u>https://www.moorfields.nhs.uk/sites/default/files/Blepharitis.pdf</u> and a video at <u>https://www.youtube.com/watch?v=oHODzr9I3MA</u> showing eye lid hygiene techniques.

Туре	Brand (examples)	Brands suitable for use with contact lenses	Directions for use
Hypromellose eye drops 0.3% or 0.5%	Generic (0.3%) Available as 0.3% & 0.5% versions: AccuLose® AaproMel®	Evolve® Hypromellose 0.3% preservative free Available as 0.3% & 0.5% versions: Teardew®	Use every hour at first then reduce to four times a day as your eyes improve.
Carbomer 0.2% eye gel	Clinitas® Lumecare Carbomer	Evolve® Carbomer 980 (PF) phosphate and buffer free	Can be used up to 3 times a day and at night before bed. Can be used before bed with other drops in the daytime if preferred.
Polyvinyl alcohol 1.4% eye drops	Sno Tears®	Refresh® Ophthalmic single dose unit (PF)	Use up to 6 times a day.
Sodium hyaluronate 0.2% eye drops	Blink® Intensive Tears	Blink® Intensive Tears	Use up to 6 times a day.
Hydroxypropyl guar eye drops	Systane®		Use up to 6 times a day.

Examples of products you can buy (more are available – ask your pharmacist):

Carmellose 1% preservative free eye drops	Celluvisc®	Eyeaze®	Use up to 6 times a day.
*Paraffin based ointments	Xailin® Night		For bedtime use as may cause blurred vision. Can use with other drops in the daytime. *Paraffin based ointments are flammable and care should be taken to avoid burns e.g., smoking, close contact with naked flames etc.

How to use eye drops/gels:

- Wash your hands before applying treatment.
- Tilt your head back (or lie down) and pull the lower eyelid out to form a pocket.
- For eye drops put one drop into the pocket. Only one drop is needed; any more will spill out from the eye.
- For eye gels apply a thin line of gel along the inside of the lower eyelid. Close your eyes for a moment then blink to spread the gel.
- Repeat the process for the other eye.
- Don't rub your eyes when using eye drops or gels.
- Don't touch the eye with the nozzle of the bottle/tube.

References:

Javadi & Feizi. (2011). Dry Eye Syndrome. Journal of Ophthalmic & Vision Research. 6 (3), p192-198. National Library of Medicine

Conditions for which over the counter items should not routinely be prescribed in primary care: Guidance for CCGs. NHS England

NICE Clinical Knowledge Summaries – Dry Eye Disease [Last revised January 2023]

Drug Tariff: NHSBSA [last accessed October 2023]

Used in the development of the 'Dry Eye Self-Care Leaflet':

All Wales Medicines Strategy Group: Dry Eye Syndrome Guidance December 2016

PrescQIPP Bulletin 202 Eye Preparations 2.0 March 2018 (requires registration with PrescQIPP website to access)

Based on Pathway originally produced in 2020. Reviewed February 2023 - October 2023 by the Joint Working Group on Dry Eyes included, whose representatives include Wakefield District Health & Care Partnership, Kirklees Health & Care Partnership, The Mid Yorkshire Teaching NHS Trust, and the Local Optical Committee (LOC).

Appendix 1:

Dry Eye Classification					
Severity	Mild	Moderate	Severe		
Symptoms	Minimal	Moderate	Severe		
Conjunctival Injection	No/Minimal	Moderate	Extensive		
Corneal Staining	No/Minimal	Moderate	Extensive		
Tear Break-Up Time (TBUT)	6-10 seconds	2-5 seconds	0-1 second		
Schirmer's test (5 min)	6-10mm	<2-5mm	0-1mm		
Treatment	Self-care advice and education				
	Recommend over-th lubricant where appr	Follow Dry Eye Treatment Pathway			

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Approved October 2023. Due for renewal in October 2025

Appendix 2:

Dry eye treatment Pathway Plain text explanation

Patient presents with dry eye symptoms.

Does the patient have any red flags? E.g., acute glaucoma, keratitis, iritis, or corneal ulcer or does the patient have abnormal lid anatomy or function, deterioration of vision.

If the answer is yes, see referral for specialist assessment (see appendix 2) for Wakefield only.

If the answer is no, review repeat / OTC medicines for anticholinergic effects that can cause dry eye symptoms. Discuss symptoms with patient & review of current medicines.

Severe Dry Eye Symptoms

If no, recommend Minor illness suitable for self-care:

NHS England advises no routine prescription for mild to moderate dry eyes (non-severe)

- Advise on purchasing dry eye products OTC.
- Give self-care leaflet.
- Treat blepharitis if present

If yes, refer for specialist assessment, and:

- Prescribe an ocular lubricant if any of these conditions are present:
- Suspected Sjögren's, autoimmune disease related condition, previous corneal conditions, recurrent corneal erosions, corneal injury
- Prescribe a product from Group A
- Give self-care leaflet.

The results of treatment will be effective or ineffective.

If treatment is effective, continue to prescribe and review dry eye products annually to assess continuing need. If the products are not tolerated, try preservative free product from Group C.

If this is not tolerated or ineffective, then prescribe a different product from Group C.

If results of treatment are ineffective, firstly ensure products have been used correctly and advice from self-care leaflet is followed.

Prescribe a different product in Group A, if this is not tolerated try preservative free product from Group C. If the product from group A is ineffective, then prescribe a product from Group B. If the group B product if not tolerated, try preservative free product from Group C. If the group B product is ineffective, then prescribe a different product from Group B.

For Information:

Use a preservative free (PF)/biodegradable preservative product when there is a documented allergy. Consider PF/biodegradable preservative product for those on concurrent topical therapy for other eye conditions and using >6 times a day.

There is no evidence to suggest that any one ocular lubricant is superior to another.

Trial a product for 4-8 weeks to determine effectiveness of product before trialing another.

Referral information:

Kirklees (North)

No specific ophthalmological referral pathway in place, use standard referral method.

Wakefield place

Guidance on ophthalmological referrals available here:



Commissioner's Ophthalmology Refer