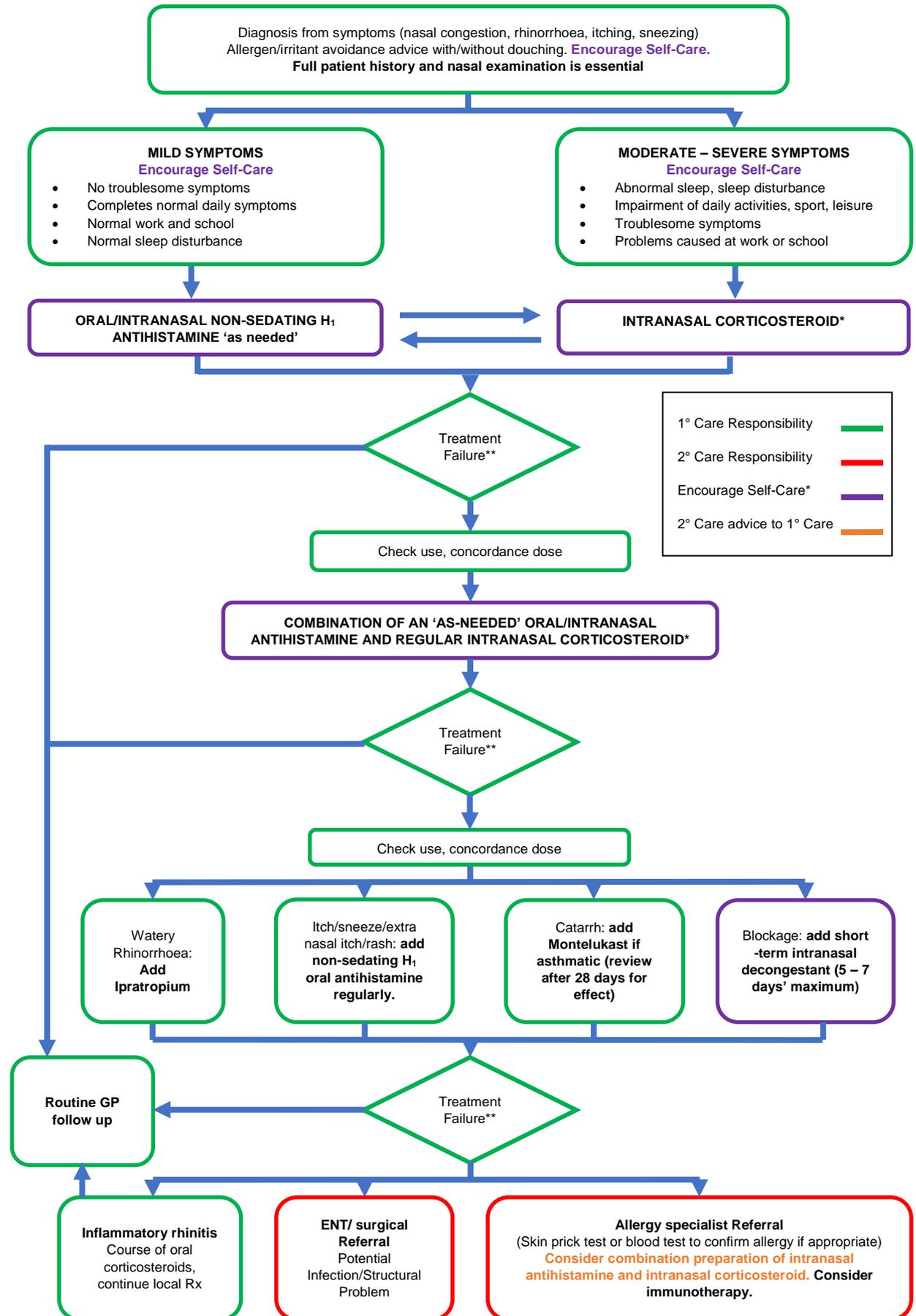


# Allergic Rhinitis

## Adults and Adolescents 12 years and over

### Cambridgeshire and Peterborough Joint Pathway



## Cambridgeshire and Peterborough Joint Policy – Allergic Rhinitis

## Background and Rationale:

**Allergic rhinitis (AR)** is among the most common diseases globally and usually persists throughout life.<sup>1</sup> Its prevalence is increasing in the UK, currently affecting 10 -15% of children and 26% of adults.<sup>2,3</sup> AR affects quality of life, school and work attendance and is a risk factor for the development of asthma.<sup>3</sup>

Classical symptoms of AR are nasal itching, sneezing, rhinorrhoea and nasal congestion.<sup>1</sup> Ocular symptoms are also frequent; allergic rhinoconjunctivitis is associated with itching and redness of the eyes and tearing.<sup>1</sup> Allergic rhinoconjunctivitis (AR) remains the most common immunological disease in man and is still subject to under-recognition and poor management.<sup>3</sup> Other symptoms include itching of the palate, postnasal drip and cough.<sup>1</sup>

AR may be classified according to timing, frequency and persistence of symptoms<sup>2</sup>:

- **Seasonal** – symptoms occur at the same time each year in response to seasonal allergen.
- **Perennial** – symptoms occur throughout the year, typically due to allergens from house dust mites and animal dander.
- **Intermittent** – symptoms occur for less than four days a week, or less than four consecutive weeks, typically due to allergens such as animal dander.
- **Persistent** – symptoms occur for more than four days a week and for more than four consecutive weeks, typically due to allergens such as house dust mites.

The severity of symptoms may be classified as<sup>2</sup>:

- **Mild** – if symptoms are not troublesome or impacting on quality of life.
- **Moderate or severe** – if symptoms are troublesome and impacting on daily activities or sleep.

**Occupational allergic rhinitis** describes symptoms in a previously unaffected person, due to exposure to allergens in the work environment for example, flour allergy in a baker, or bleaching agents and hair dyes in a hairdresser<sup>4</sup>.

Complications of AR include<sup>2</sup>:

- **Asthma** – allergic rhinitis and asthma often co-exist and allergic rhinitis is a risk factor for the development of asthma.
- **Sinusitis and nasal polyps** – it is thought that swelling of the nasal mucosa leads to obstruction of the drainage of the sinuses, predisposing to the development of sinusitis.
- **Oral allergy syndrome (pollen-food syndrome)** – symptoms of oral itching and swelling occur due to cross-reactivity between aeroallergens.
- **Upper respiratory tract infections**<sup>5</sup>
- **Otitis media.**<sup>5</sup>

## Diagnosis

- A detailed history is key to effective management, ask about<sup>3</sup>:
  - Triggers (seasonal, indoors/outdoors, home/school/work location).
  - Relationship to potential triggers and impact on quality of life.
  - Pets or contact with animals.
  - Improvement of symptoms on weekends or holidays.
  - Drug history including use of anti-hypertensives (alpha and beta blockers), aspirin and non-steroidal anti-inflammatory drugs, oral contraceptives and topical sympathomimetics.
- Examine the nose for signs and underlying causes of rhinitis, and/or associated conditions and to rule out any structural problems<sup>3</sup>.
  - Allergic salute and/or horizontal nasal crease across dorsum of nose and/or eye involvement supports a diagnosis of allergic rhinitis.
  - Note: the nasal appearance may be normal in people with allergic rhinitis<sup>3</sup>.
- Consider family history of AR.<sup>3</sup>

## Key symptoms and signs<sup>3</sup>:

- Rhinorrhoea is either anterior, posterior or both with yellow or green discharge.
- Nasal obstruction (also consider nasal polyps or septal deviation).
- Nasal crusting (unusual in rhinitis and requires further investigation).
- Eye symptoms (itching, redness and swelling of the white of the eye and periorbital oedema).
- Cough, wheeze, shortness of breathlessness - 80% of asthmatics have rhinitis.
- Snoring and sleep problems.
- Sneezing and itching.
- Repeated sniffing and nasal intonation of the voice.

## Lifestyle Advice – ALL PATIENT SHOULD BE GIVEN THIS ADVICE:

- Provide advice on sources of information and support such as NHS Health A-Z.
- Advise the patient to consider the use of nasal irrigation with saline to rinse the nasal cavity using a spray, pump or squirt bottle that can be bought over the counter. Saline irrigation is well tolerated, inexpensive, easy to use and unlikely to cause adverse effects. It has a small beneficial effect in symptom reduction and may reduce the need for subsequent drug treatment. It is also a safe and effective option in pregnancy and whilst breastfeeding.<sup>3</sup>
- Provide advice on allergen avoidance techniques which are particularly helpful but may not always be possible:
  - For people with grass pollen allergy advise to<sup>2</sup>:
    - Minimise outdoor activity at peak pollen times (early morning, early evening, during mowing) when pollen count is high.
    - Keep windows shut in cars and when in building
    - Avoid drying washing outside when pollen count is high.

- Shower or wash hair following high pollen exposures.
- Plan holidays to avoid the pollen season, where possible.
- Wear sunglasses if ocular symptoms are problematic.
- For people with confirmed house dust mite allergy (after allergy testing) advise to<sup>2</sup>:
  - NOT fit mattresses, pillow and duvets with house dust mite impermeable covers.
  - Use synthetic pillows and acrylic duvets and keep furry toys off the bed.
  - Wash all bedding and furry toys at least once a week at high temperatures.
  - Choose wooden or hard floors instead of carpets, if possible.
  - Fit blinds that can be wiped regularly with a clean, damp cloth instead of curtains.
- For people with confirmed animal allergy (after allergy testing) advise to<sup>2</sup>:
  - Ideally not allow the animal in house or if this is not possible, advise restricting their presence to the kitchen.
  - Wash the animal and any surfaces they are in contact with regularly.
- For people with occupational allergy advise to<sup>2</sup>:
  - Eliminate or reduce exposure to sensitising allergens in the workplace.
  - Ensure their work environment is adequately ventilated and/or relocate to lower exposure areas in the workplace.
- Smoking cessation advice should be given if the patient is a smoker and subsequent referral to cessation services.

### Treatment for Adults and Adolescents over 12 years of age (Primary Care – see pathway)

- **If the patient has mild to moderate intermittent, or mild persistent symptoms consider:**
  - First line the 'as-needed' use of a non-sedating oral antihistamine.
    - *Cetirizine* is first line formulary choice.
    - *Loratadine* is second line choice.
    - Both may be purchased over the counter.
  - Or the 'as-needed' use of an intranasal antihistamine, *Azelastine* (Rhinolast®) (One spray twice a day into each nostril)
    - A faster onset of action than oral antihistamine,
    - More effective than oral preparations,
    - More expensive than oral preparations,
    - Only available on prescription.
  - Encourage self – care where patient is willing and able.
- **If the patient has moderate-to-severe persistent symptoms, consider:**
  - *Intranasal corticosteroids i.e. beclometasone or mometasone nasal spray*
  - Onset of action is 6 – 8 hours after the first dose, clinical improvement may not be apparent for a few days and maximal effect may not be apparent until after two weeks.<sup>3</sup>
  - Starting treatment two weeks prior to a known allergen season improves efficacy.<sup>3</sup>
  - Start at recommended dose and increase if necessary.
  - *Beclometasone dipropionate* is first line formulary choice.

\*Beclometasone dipropionate is available over the counter for adults over 18 years of age.

- *Mometasone furoate* is second line formulary choice.
- Advise patient not to increase above prescribed dose and to not switch to an alternative preparation.
- Encourage self-care where patient is willing and able.
- **Reviewing treatment<sup>2</sup>**
  - Review patients after 2 – 4 weeks if symptoms persist after initial treatment, management may need to be stepped up.
  - If symptoms resolve or there is adequate symptom control, continue treatment until they are no longer likely to be exposed to the suspected allergen.
- **Consider causes for treatment failure<sup>\*\*2</sup>:**
  - After any treatment failure, it is extremely important to check compliance with self-management strategies, check compliance with initial drug treatments and/or correct technique for using intranasal sprays and also to consider an alternative diagnosis.
- **Consider stepping up to combined treatment of an oral/intranasal antihistamine ‘as-needed’ and intranasal corticosteroid spray**
  - An *oral/intranasal antihistamine* may be used with an *intranasal steroid* if the intranasal corticosteroid is not completely resolving symptoms and is at maximum dose.
  - If patient remains symptomatic despite treatment with both an oral/intranasal antihistamine and an intranasal corticosteroid review treatment again and consider potential causes for treatment failure.
  - Review treatment after 2 – 4 weeks:
    - If symptoms resolve or there is adequate symptom control, continue treatment until they are no longer likely to be exposed to the suspected allergen.
  - Encourage self-care where patient is willing and able.
- **Consider stepping up treatment if a patient has refractory symptoms while using regular intranasal corticosteroid and oral/intranasal antihistamine ‘as-needed’<sup>2,3</sup>**
  - If nasal congestion is an issue, add in a short-term intranasal decongestant such as *ephedrine* or *xylometazoline* for 5 – 7 days. These can be purchased over the counter for adults over 12 years of age.
  - If there is persistent watery rhinorrhoea despite combined use of an intranasal corticosteroid and oral antihistamine, add in an intranasal anticholinergic such as *ipratropium bromide*.
  - If there is persistent nasal itching and sneezing, add in regular use of the *oral antihistamine* rather than ‘as-needed’.
  - If the patient has ongoing symptoms and a history of asthma, consider adding in the leukotriene receptor antagonist, *Montelukast*.
  - Please note that combined treatment with an *intranasal and oral antihistamine* is **not recommended**.
  - Review treatment after 2 - 4 weeks:
    - If symptoms resolve or there is adequate symptom control, continue treatment until they are no longer likely to be exposed to the suspected allergen.
  - Encourage self-care where patient is willing and able.
- **If the patient has severe, uncontrolled symptoms that are significantly affecting their quality of life consider prescribing a short course of oral corticosteroids**
  - *Prednisolone* is first line formulary choice.

## Referral for specialist assessment (Secondary care)

Once a patient has been on maximal medical therapy (see allergic rhinitis pathway) they can be referred for specialist assessment.

### Consider referral to ENT if:

- There are red flag features such as unilateral symptoms, blood-stained nasal discharge, recurrent epistaxis or nasal pain – arrange an urgent two week wait referral to ENT.<sup>2</sup>
- There is predominant nasal obstruction and/or a structural abnormality such as deviated nasal septum which makes intranasal drug treatment difficult.
- The diagnosis is uncertain.

### Consider referral to Allergy Clinic<sup>2</sup>:

- If there are persistent symptoms despite optimal management in primary care:
  - **Consider allergy testing involving skin prick testing or measuring levels of serum-specific immunoglobulin (IgE) to allergens** such as house dust mites, pollen and animal dander.
  - **Consider switching patient to a combination preparation containing an intranasal antihistamine (azelastine) and intranasal corticosteroid (fluticasone propionate) such as *Dymista*<sup>®</sup> spray.**
    - Concordance is higher when the drug therapy is simple hence two drugs within the one device.
  - **Specialist immunotherapy may be appropriate for people with symptoms on allergen exposure, objective confirmation of IgE sensitivity and persistent symptoms predominantly due to one allergen such as grass pollen or house dust mite.**
    - *Grass pollen extract (Grazax*<sup>®</sup>*)* initiated by a specialist may be continued by GP in primary care for patients with confirmed grass pollen allergy. Treatment course usually 3 years.

## Useful resources for patients

- Patient information on how to use nose drops correctly:  
<https://patient.info/health/allergies/features/how-to-use-nose-drops>
- Patient information on how to use nasal spray correctly:  
<https://patient.info/health/steroid-nasal-sprays>

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## Glossary

- *Antihistamines* - these are a class of drugs that inhibits the release or action of histamine and are commonly used for treatment of allergy.
- *Corticosteroids nasal spray* - these are a class of topically acting sprays containing steroidal hormones.
- *Dymista nasal spray* - a combination preparation containing an intranasal antihistamine (azelastine) and intranasal corticosteroid (fluticasone propionate). This is suitable for initiating in primary care under specialist advice from secondary care only.
- *Grazax (Standardised allergen extract of grass pollen from Timothy Grass [Phleum pratense] 75,000 SQ-T\* per oral lyophilisate)* - indicated as a disease-modifying treatment of grass pollen induced rhinitis and conjunctivitis in adults and children (5 years or older), with clinically relevant symptoms and diagnosed with a positive skin prick test and/or specific IgE test to grass pollen. This should be initiated by a Consultant Physician with a month supply and the prescribing responsibility then transferred to GPs with a standard letter indicating monitoring and stopping criteria.
- *Rhinorrhoea* - is commonly referred to as runny nose and consists of an unusually significant amount of nasal fluid. Rhinitis: Is commonly known as a runny nose, is the medical term describing irritation and inflammation of some internal areas of the nose.
- *Skin prick test (SPT)* - is a method for medical diagnosis of allergies that attempts to provoke a small, controlled, allergic response by pricking the skin with a needle or pin containing a small amount of the allergen.

## Appendix 1: Cost comparisons for treatments within the allergic rhinitis pathway (Prices from BNF 2019, Drug tariff, C+D March 2019)

Formulation	Dose	Cost (Unit Price-Average)	Number of sprays/ units	Current formulary status	Cost per 28 days
Grass pollen extract	One tablet daily, treatment to be started at least 4 months before start of pollen season and continue for up to 3 years.	£80.12	30	<b>Restricted – NO SCG.</b> GP is able to prescribe after initiation in hospital. Hospital prescribe first month's treatment.	£74.77
Azelastine 137mcg/ Fluticasone Propionate 50mcg (Dymista)	One spray into each nostril twice daily	£14.80	120	<b>Specialist Advice –</b> Secondary care advice provided for primary care initiation.	£13.81
Azelastine 140mcg (Rhinolast)	One spray into each nostril twice daily	£10.50	150	<b>Formulary</b>	£7.84
Fluticasone propionate 50mcg/spray (Flixonase)	Two sprays each nostril once daily; maintenance one spray once daily	£11.01	150	<b>Non-formulary</b>	£8.22 then £4.11 maintenance
Beclometasone dipropionate 50mcg (Beconase)	Two sprays each nostril twice daily; maintenance one spray each nostril twice daily	£2.63	200	<b>Formulary</b>	£2.95 then £1.47 maintenance
Mometasone 50mcg/spray (Generic)	Two sprays each nostril once daily, increased to FOUR sprays each nostril once daily and can be reduced to maintenance ONE spray each nostril daily	£3.70	140	<b>Formulary</b>	£2.96 then £1.48 maintenance
Ipratropium bromide 21mcg/spray (Rinatec)	Two sprays two to three times daily, in each nostril	£6.54	180	<b>Formulary</b>	£12.21
Cetirizine tablets	10mg once daily	£0.81	30	<b>Formulary</b>	£0.76
Loratadine tablets	10mg once daily	£0.63	30	<b>Formulary</b>	£0.59
Fexofenadine	120mg once daily	£1.71	30	<b>Restricted Advice:</b> only suitable in primary care where formulary choices have failed, and the patient is unable to self-care with OTC.	£1.60
Montelukast	10mg once daily	£1.13	28	<b>Formulary</b>	£1.13
<b>OTC Preparations</b>		<b>Retail Price</b>			
Fluticasone propionate (Pirinase)	Two sprays each nostril once daily	£8.69	60 sprays	<b>Patient to purchase where willing and able: SELF-CARE</b>  Generics will be available from pharmacies that are less expensive than the prices listed here.	
Beclometasone dipropionate (Beconase)	Two sprays each nostril twice daily	£10.99	180 sprays		
Mometasone furoate (Clarinaze)	Two sprays each nostril twice daily	£13.99	140 sprays		
Cetirizine	10mg once daily	£0.99	10 tablets		
Loratadine	10mg once daily	£2.75	30 tablets		
Xylometazoline (Otrivine)	1 spray 1–3 times a day as required for maximum duration of 7 days	£4.19	10ml		

