

Management of Allergic Rhinitis in Primary Care

Step 1- Patient to see their local pharmacist

- Advice on Allergen Avoidance (see [Appendix 1](#))
- Advice on nasal douching/irrigation (see [Appendix 2](#))
- If mild symptoms, recommend OTC antihistamines – [Table 1](#)
- If moderate /persistent symptoms recommend OTC nasal steroids – [Table 2](#)

Step 2 - Patient to see GP

- Check nasal steroid technique
- Allergen avoidance - [Appendix 1](#)
- +/- Nasal irrigation - [Appendix 2](#)
- Increase dose of nasal steroid/ or consider short course of oral corticosteroid. (*Recommended intranasal steroids Beclometasone, Budesonide, Fluticasone furoate*) see [Table 2](#)
- Consider specific allergen test – specific IgE RAST
OR referral for Skin Prick Test -if specific allergen causing symptoms unknown and symptoms persistent refer to Sheffield Allergy/Immunology clinic
Paediatrics to Paediatric immunology clinic BHNFT

	Oral antihistamine Table 1	Nasal antihistamine Eg azelastine	Nasal steroids Table 2	Nasal decongestant Eg. Pseudoephedrine	Ipratropium bromide	Nasal chromone
Rhinorrhoea	++	++	+++	-	++	+
Sneezing	++	++	+++	-	-	+
Itching	++	++	+++	-	-	+
Blockage	+	+	+++	+++	-	+
Eye symptoms	++	-	++	-	-	-
Onset of action	1h	15 min	12h	5-15 min	15-30 min	variable
Duration	12-24h	6-12 h	12-48h	3-6 h	4-12 h	2-6 h

Step 3 Additional medication depending on predominant symptoms

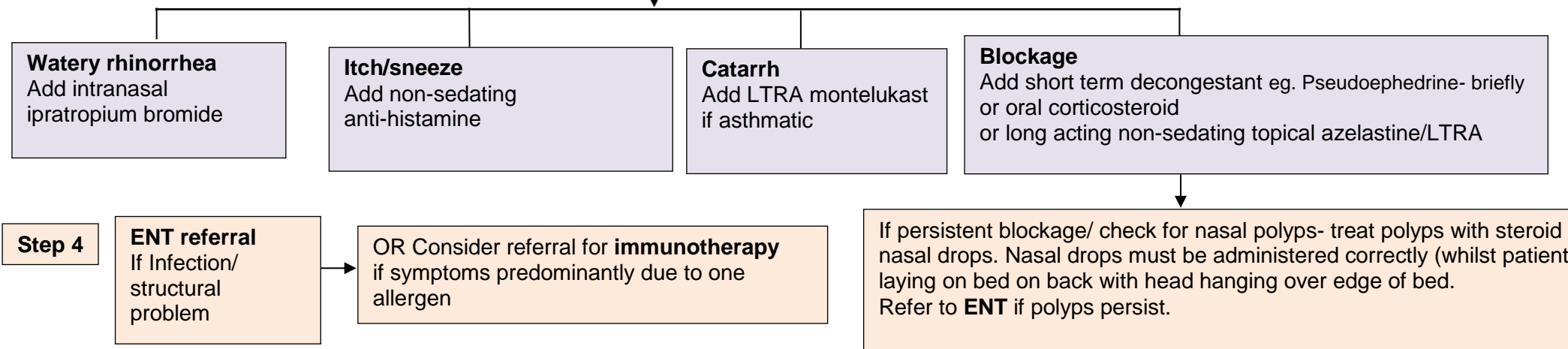


Table 1. Comparison of non-sedating antihistamines on the Barnsley formulary

in order of expense for each generation (least expensive first), from Drug Tariff May 2018 and MIMS May 2018.

*Denotes first line options

Antihistamine	% Sedation/ somnolence or CNS impairment (control)	Adult dose	Cost for 28 days at adult dose (£)	Age limit in years (SAR=Seasonal Allergic Rhinitis)
Loratadine (10mg tabs)*	8 (6)	10mg od	0.45	2 years
Cetirizine (10mg tabs)*	14 (10)	10mg od	0.70	2 years (SAR only) 6 years
Cetirizine oral solution (5mg/5ml)	14 (10)	10mg od	1.53	2 years (SAR only) 6 years
Fexofenadine	1.3 (0.9)	120mg od	1.76	6 years
Loratadine syrup (5mg/5ml)	8 (6)	10mg od	3.99	2 years
Azelastine (intranasal)	11.5 (5.4)	1 spray both nostrils bd	10.50	6 years

Table 2. Intranasal corticosteroid sprays on Barnsley formulary

in order of expense (least expensive first), from Drug Tariff May 2018 and MIMS May 2018.

Intranasal steroid spray (INS) Prescribe as the pack size listed below to ensure most cost-effective product prescribed.	Starting dose	Maintenance dose	28 day cost (maintenance dose) £	Licensed Age limit in years	Pregnancy risk category**
Beclometasone (generic). 50µg/dose, 200 doses.	2 sprays into each nostril BD	1 spray into each nostril BD	2.55	6	C
Budesonide (prescribe as the cost-effective brand Rhinocort Aqua®) 64µg/dose, 120 doses.	2 sprays into each nostril OD or 1 spray into each nostril BD	1 spray into each nostril OD	3.77	12	B
Fluticasone furoate (Avamys®), 27.5µg/dose, 120 doses.	2 sprays into each nostril OD	1 spray into each nostril OD	6.44	6	C
Mometasone furoate, 50µg/dose, 140 doses.	2 sprays into each nostril OD	1 spray into each nostril OD	7.68	6	C
Fluticasone propionate (prescribe as the cost-effective brand Nasofan®) 50µg/dose, 150 doses.	2 sprays into each nostril OD.	1 spray into each nostril OD	8.04	4	C

** Pregnancy risk category:

- B Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women.
- C Animal reproduction studies have shown an adverse effect on the fetus and there are no adequate and well-controlled studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.

This guideline was approved by the APC on 13th June 2018

Appendix 1: Avoidance strategies for common rhinitis-causing allergens

Allergen Type	Allergen Exposure Period	Allergen Avoidance Strategies
Pollen* <i>Early tree pollen</i> <i>e.g. alder, hazel</i>	<i>Seasonal</i> (Jan- March). Intermittent or chronic symptoms.	<ul style="list-style-type: none"> • Check pollen count (highest in the morning and evening and when humid or windy). Stay indoors when high. • Avoid grassy open spaces (parks, fields, and activities such as cutting grass); change clothes and shower after going out; keep pets out of the house during the hay fever season and wash them regularly; wear wrap-around sunglasses. • Avoid fresh flowers in the house; keep windows closed (especially during mid-morning and early evening); consider buying a pollen filter for the air vents in your car and changing these with each service. • Vacuum (ideally with a HEPA filter) and damp dust regularly. • Avoid exposure to smoke which irritates the lining of your nose, eyes, throat and airways and makes symptoms worse.
<i>Mid/late tree pollen</i> <i>e.g. silver birch</i>	<i>Seasonal</i> (March- April).	
<i>Grasses</i>	<i>Seasonal</i> (May-July). Intermittent or chronic symptoms.	
<i>Nettles and other weeds</i>	<i>Seasonal</i> (July- Sept). Intermittent or chronic symptoms.	
Fungi (moulds)	<i>Persistent or intermittent.</i> Ubiquitous allergen-producing fungi can grow on any decaying matter, both inside and outside the house. Allergenic mould spores are released when there is a sudden rise in temperature in a moist environment e.g. when central heating is turned on in a damp house, or someone dries wet clothes next to a fireplace. <ul style="list-style-type: none"> • Indoor mould is influenced by the age and construction of the building, type of heating system, and use of humidifiers and air conditioning. 	<ul style="list-style-type: none"> • Eliminate sources of moisture, such as water intrusion, cold surfaces, and elevated humidity, keep home dry, well ventilated and do not dry clothes indoors, or store clothes in damp cupboards. • Dehumidifiers can help reduce damp and resultant mould levels in the house. • Indoor mould can be controlled somewhat via chemical and physical measures such as fungicides, careful cleaning of humidifiers and vaporisers. The overall effectiveness of these measures, however, is dependent upon reducing relative humidity by removing all sources of moisture and condensation levels. • Scour sinks and tubs at least once a month. • Use dilute bleach on nonporous surfaces, whereas porous surfaces must be removed and/or replaced • Avoid outdoor moulds by remaining indoors and using air conditioning on an indoor cycle; however, it is important to note that air conditioning units themselves may be heavily contaminated with mould and these may need to be cleaned or replaced. • When involved in plant-disturbing activity, such as gardening and lawn mowing, facemasks can reduce exposure to fungi.
House dust mites (HDM)	<i>Perennial.</i> <ul style="list-style-type: none"> • Persistent symptoms usually present throughout the year (although HDM numbers tend to peak in spring and autumn), requiring ongoing treatment. Usually worse on waking. 	<ul style="list-style-type: none"> • Single HDM avoidance measures are not routinely recommended because they are inconvenient, difficult to achieve, require long-term commitment, expensive and lack of good quality evidence for their effectiveness. However, for confirmed HDM allergy inadequately controlled by drug treatment in people who want to try HDM avoidance measures, a number of experts have recommended a combination of the following measures:

	<ul style="list-style-type: none"> • HDM feed on exfoliated human skin and therefore highest in: mattresses, bed bases, pillows, carpets, upholstered furniture and furry toys. Their growth is maximal at temperatures above 20°C and when humidity is above 80%. When humidity falls below 50%, they die. Dust mite exposure can be reduced through measures that kill the mites or degrade and/or prevent their faecal pellets from becoming airborne. 	<ul style="list-style-type: none"> • Using physical barriers include HDM impermeable covers for mattresses and pillows; using synthetic pillows and acrylic duvets (instead of woollen blankets, or feather bedding) and keeping furry toys off the bed. • Preferably remove reservoirs such as cushions, soft/furry toys, other upholstered furniture (using plastic, wood, or leather furniture instead), carpets (wooden or hard floor surfaces instead) and curtains (fit blinds that can be wiped clean regularly with a clean, damp cloth). • Wash all bedding and furry toys at least once a week at high temperatures (> 55°C). • Use a vacuum cleaner fitted with a high efficiency particulate air (HEPA) filter to remove more dust than ordinary vacuum cleaners. • Dehumidify (to < 50% level). Air conditioning reduces mite numbers by lowering indoor humidity. • The effectiveness of chemical barriers depends upon their repeated application. Chemical barriers include using acaricides: 3% tannic acid solution to denature dust mites in upholstered furniture and treating carpeting with Acaroson®, a compound containing benzyl benzoate.
<p>Animal dander</p>	<p><i>Perennial</i></p> <ul style="list-style-type: none"> •Symptoms are usually present throughout the year, requiring ongoing treatment. •Cats and dogs are the most common animals associated with causing AR. Less commonly, dander from horses; cattle; rabbits; and rodents, such as guinea pigs, hamsters, and rats, may cause allergic rhinitis. •Exposure to allergens in dander (flakes of their dead skin, saliva, and dried urine) causes allergic reactions (as opposed to pet fur). These allergens can be easily spread through passive means (i.e., transport on clothing). 	<ul style="list-style-type: none"> • Remove animal from house (especially bedrooms as their skin flakes can remain in the air for a long time) or restrict their presence to one uncarpeted room (e.g. the kitchen) with an electrostatic or HEPA air purifier to reduce airborne allergen dissemination to the rest of the home. • Effectiveness of cleaning is limited if the animal is still present. Keep them outside as much as possible and have them washed at least one a fortnight, preferably weekly or bi-weekly. Evidence in support of this practice is mixed, but washing should never be attempted by the allergic patient. • Castration will reduce the production of allergens by male cats and dogs.
<p>Occupational allergens</p>	<p>Intermittent or persistent symptoms tend to improve when the person is away from work at weekends and holidays. The incidence of allergic rhinitis is increased in certain professions, including people working with latex gloves, flour dust, and wood dust.</p>	<ul style="list-style-type: none"> •Optimal management is avoidance of the occupational trigger, but avoidance of non occupational allergens that contribute to the nasal symptoms is also recommended. •Discussion with the Occupational Health Department is recommended if this is available.

Appendix 2: SALINE NASAL IRRIGATION (DOUCHING) Patient information sheet

AIMS

1. To wash mucus and crusts out of the nose
2. This salt solution is slightly stronger than that in the tissue lining the nasal cavity and so draws liquid out of them and decongests the nose
3. The bicarbonate of soda makes the solution alkaline which helps the nose to fight infection

RECIPE

In a clean 2 pint container mix together:

- 3 heaped teaspoons of salt
- 1 teaspoon of bicarbonate of soda
- 2 pints of bottled water or boiled water which has been left to cool

INSTRUCTIONS

Plan to irrigate the nose with the saline solution 2 or 3 times a day

1. Mix the solution as directed making this fresh daily
2. Draw up into the syringe
3. Attach the nozzle provided to the syringe
4. Head well down over the sink gently introduce the solution with the tip of the nozzle
5. Gently press the plunger
6. Sniff the solution back through the nose into the throat and spit out

REPEAT STEPS 4 TO 6

Alternatively, you can simply sniff the solution from your cupped hand

Use as much solution as can be tolerated and sufficient to make the nose feel clearer

It will not hurt if some of the solution is swallowed

Douche the nose regularly for the first two weeks and afterwards as and when necessary depending on your nasal symptoms. Use fresh solution each day. This can be warmed slightly but please test the temperature before commencing.

If you use a nasal steroid or drops you should always douche your nose before using this treatment. The nasal steroid is more effective when applied to a clean nasal membrane and the steroid medicine will reach deeper into the nose.

Most people experience a mild burning sensation the first few times they use the saline solution but usually settles in a few days. If this persists reduce the bicarbonate of soda. Further syringes can be obtained from your GP