

| |
|---|
| TRUST CORPORATE POLICY Barts Health Adult Allergic Rhinitis Guidelines |
|---|

| | | | |
|-----------------------------------|---|----------------|--|
| APPROVING COMMITTEE(S) | (1) Waltham Forest and East London Medicines Optimisation and Commissioning Committee (2) Barts Health Drugs & Therapeutics Committee (3) Tower Hamlets Prescribing Delivery Board | Date approved: | (1) 22/05/19 (2) 07/08/19 (3) 18/09/19 |
| EFFECTIVE FROM | 01/04/2019 | | |
| DISTRIBUTION | Barts Health NHS Trust, NHS Newham CCG, NHS Tower Hamlets CCG, NHS Waltham Forest CCG. | | |
| RELATED DOCUMENTS | BSACI guideline for the diagnoses and management of allergic and non-allergic rhinitis (Revised edition 2017; first edition 2007) | | |
| STANDARDS | | | |
| OWNER | Respiratory Pharmacy Team, | | |
| AUTHOR/FURTHER INFORMATION | Bijal Gandhi, Highly Specialist Severe Asthma and Allergy pharmacist; Christabelle Chen Lead Respiratory Pharmacist Dr Runa Ali, Clinical Lead for Adult Allergy Joint Lead North Central and East London Severe Asthma service. | | |
| SUPERCEDED DOCUMENTS | | | |
| REVIEW DUE | 01/03/2022 | | |
| KEYWORDS | Allergic rhinitis, Respiratory | | |
| INTRANET LOCATION(S) | https://weshare.bartshealth.nhs.uk/trust-wide-policies | | |

| | | |
|---|---|--|
| CONSULTATION | <i>Barts Health</i> | Barts Health Drugs and Therapeutics Committee |
| | <i>External Partner(s)</i> | Waltham Forest and East London Medicines Optimisation and Commissioning Committee (WEL MOCC): NHS Newham CCG NHS Tower Hamlets CCG NHS Waltham Forest CCG |
| SCOPE OF APPLICATION AND EXEMPTION | Included in policy: <i>For the groups listed below, failure to follow the policy may result in investigation and management action which may include formal action in line with the Trust's disciplinary or capability procedures for Trust employees, and other action in relation to organisations contracted to the Trust, which may result in the termination of a contract, assignment, placement, secondment or honorary arrangement.</i> | |
| | All Trust staff, working in whatever capacity | |
| | Other staff, students and contractors working within the Trust | |

1 INTRODUCTION

- 1.1 Allergic rhinoconjunctivitis (AR) is the most common immunological disease in man and significantly reduces the quality of life, interferes with both attendance and performance at school and work^{1,2,3}.
- 1.2 The nose is the gateway to the respiratory tract; rhinitis is associated with symptoms in the eyes, sinuses, middle ear, the nasopharynx and lower airways^{4,5,6,7}. Both AR and non-allergic rhinitis are risk factors for the development of asthma⁸. Rhinitis impairs asthma control and increases its costs⁹. The most important co-morbidity is asthma: not only is rhinitis a risk factor for subsequent asthma but 80% of asthma sufferers according to Allergic Rhinitis and its Impact on Asthma (ARIA) have concomitant rhinitis, poor control of which is a risk factor for asthma exacerbation¹⁰.
- 1.3 Rhinitis describes inflammation of the nasal mucosa but is clinically defined by symptoms of nasal discharge, itching, sneezing, and nasal blockage or congestion¹¹.
- 1.4 In the UK, rhinitis prevalence is 26% in adults¹². Peak prevalence occurs during the 30s to 40s age range, with some evidence for remission during adult life¹³.
- 1.5 Occupational rhinitis, which can be allergic or non-allergic, describes abnormalities of the nasal mucosa mediated by airborne substances in the work environment. It is distinct from work-exacerbated rhinitis, which refers to individuals with pre-existing rhinitis who experience an exacerbation of symptoms due to workplace exposures. Over 300 agents can cause occupational rhinitis, and these are the same as those which can induce occupational asthma¹⁴.
- 1.6 These guidelines are the new Barts Health NHS Trust and Waltham Forest and East London Medicines Optimisation and Commissioning Committee (WELMOCC) guidelines for the management of adult allergic rhinitis. These have been revised with focus on medication adherence and appropriate step wise management. Reasons for non-adherence to preventer intranasal sprays are both intentional and non-intentional, and clinical evidence suggests that individual patient beliefs and lifestyle behaviours / choices are an important determinant of adherence to medications, with reduced adherence when patient beliefs do not align with choice of treatment. It is vital that patients intranasal spray and drops technique is checked once prescribed.

Diagnosis of Rhinitis

- 2 A detailed history is required, including seasonality (pollen, moulds), indoors, outdoors location (dust mite, the presence of house pets), work location (occupational) and relationship to potential triggers which can impact on the

patient's quality of life. Symptoms of sneezing, nasal itching, itching of the palate are more likely to lead to allergic rhinitis.

- 2.1 Severe nasal crusting especially high inside the nose is an unusual symptom in rhinitis and requires further investigation.
- 2.2 Eye symptoms include intense itching, redness and swelling of the white of the eye, watering, lid swelling and periorbital oedema, which can be aggravated by eye rubbing.
- 2.3 The lower respiratory tract symptoms consist of wheeze and shortness of breath. Disorders of the upper and lower respiratory tract often coexist: 80% of asthmatics have rhinitis.
- 2.4 A diagnosis of allergic rhinitis is more likely when rhinitis is seasonal, or with a family history of AR. Consider pets or other contact with animals or occupation. A number of drugs can also aggravate rhinitis symptoms, and therefore, a drug history should include details of the use of alpha and beta blockers and other anti-hypertensives, aspirin and other non-steroidal anti-inflammatory drugs, oral contraceptives as well as topical sympathomimetics.

Investigations

- 3 Once patients are referred to secondary/tertiary care a skin prick test (SPT) should be carried out routinely to determine if the rhinitis is allergic or non-allergic, and these have a high negative predictive value. They should be interpreted in the light of the clinical history.
- 4 If there is a suggestive clinical history and the skin prick test results return as negative then a serum total and specific IgE may be requested.
- 5 If there is a history suggestive of Asthma then lung function tests should be completed.

Guideline

These guidelines will be aimed at Healthcare professionals for use in primary and secondary care.

Management of Allergic Rhinitis in adult patients

Table 1. The classifications of allergic rhinitis according to ARIA¹⁵

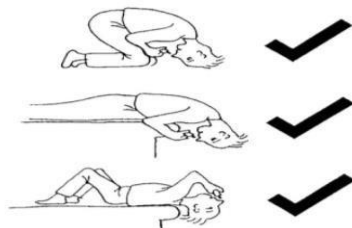
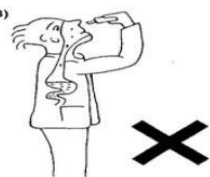
| |
|---|
| <ul style="list-style-type: none"> ➤ "Intermittent" means that the symptoms are present: <ul style="list-style-type: none"> • Less than 4 days a week • Or for less than 4 consecutive weeks |
| <ul style="list-style-type: none"> ➤ "Persistent" means that the symptoms are present: <ul style="list-style-type: none"> • More than 4 days a week • And for more than 4 consecutive weeks |
| <ul style="list-style-type: none"> ➤ "Mild" means that none of the following items are present: <ul style="list-style-type: none"> • Sleep disturbance • Impairment of daily activities, leisure and/or sport • Impairment of school or work • Symptoms present but not troublesome |
| <ul style="list-style-type: none"> ➤ "Moderate/severe" means that one or more of the following items are present: <ul style="list-style-type: none"> • Sleep disturbance • Impairment of daily activities, leisure and/or sport • Impairment of school or work • Troublesome symptoms |

(A) Intranasal spray and (B) nasal drops technique¹¹

- (A)
1. Shake bottle well
 2. Look down
 3. Using right hand for left nostril put nozzle just inside nose aiming towards outside wall
 4. Squirt once or twice (2 different directions →)
 5. Change hands and repeat for other side
 6. Breathe in gently through the nose
 7. Do not sniff



(B)



Patients must demonstrate their nasal spray technique regularly and adherence to therapy should be established before stepping up therapy.

Table 2 showing pharmacotherapy effects on individual rhinitis symptoms adapted from BSACI guidelines 2017¹¹

| Drug class | Sneezing | Rhinorrhoea | Nasal Obstruction | Nasal itching | Eye symptoms |
|--|----------|-------------|-------------------|---------------|--------------|
| Oral Antihistamines | ++ | ++ | + | +++ | ++ |
| Intranasal antihistamines | ++ | ++ | + | ++ | None |
| Ocular antihistamines | None | None | None | None | +++ |
| Intranasal corticosteroids | +++ | +++ | ++ | ++ | ++ |
| Intranasal steroids and antihistamines | +++ | +++ | +++ | +++ | +++ |
| Intranasal Decongestants | None | None | ++++ | None | None |
| Leukotriene receptor antagonist | None | + | ++ | None | ++ |

These are the available treatments and their effects upon individual symptoms.

Key Pharmacotherapy benefit on patients- + mild benefit ++ moderate benefit +++severe benefit

Allergen avoidance and self-care

Allergen avoidance clearly works in seasonal allergic rhinitis. Hayfever sufferers are symptom-free outside the pollen season. All patients should take practical measures to avoid excessive exposure to pollen and other allergens by:

- Keeping windows and doors shut especially when the pollen count is high
- Avoid cutting grass, large grassy places and camping
- Showering and washing hair after being outdoors, especially after going to the countryside
- Keeping car windows closed and buying a pollen filter for the air vents in the car

Encourage self-care if symptoms are mild. Many antihistamines, nasal sprays and eye drops are available over the counter (OTC).

Treatment of Allergic Rhinitis for adult patients in primary care

Mild

Oral Antihistamines
 Cetirizine 10mg OD (P) or Loratidine 10mg OD (P) or Fexofenadine (POM) 120mg-180mg OD up to BD* (more than OD unlicensed dose)

Intranasal Antihistamines
 Azelastine (Rhinolast®) (POM) 140micrograms/dose 0.1% 1 spray into both nostrils BD

Ocular mast cell Stabilisers
 Sodium cromoglicate 2% (P) 1-2 drops into each eye up to QDS

Ocular antihistamine
 Olopatadine (Opatanol®)(POM) 1mg/ml One drop into each eye BD up to 4 months use

Ocular antihistamine + vasoconstrictor
 Xylometazoline / Antazoline (Otrivine Antistin®) (P) 0.5%/0.05% 1 drop into each eye 2-3 times a day for 7 days maximum

Consider trial of saline irrigation. There is a small beneficial effect in symptom reduction and may reduce the amount of pharmacotherapy needed.

Key
 Mcg- micrograms
 Sp- sprays
 OD- daily
 BD- twice daily
 TDS- three times daily
 QDS- four times daily

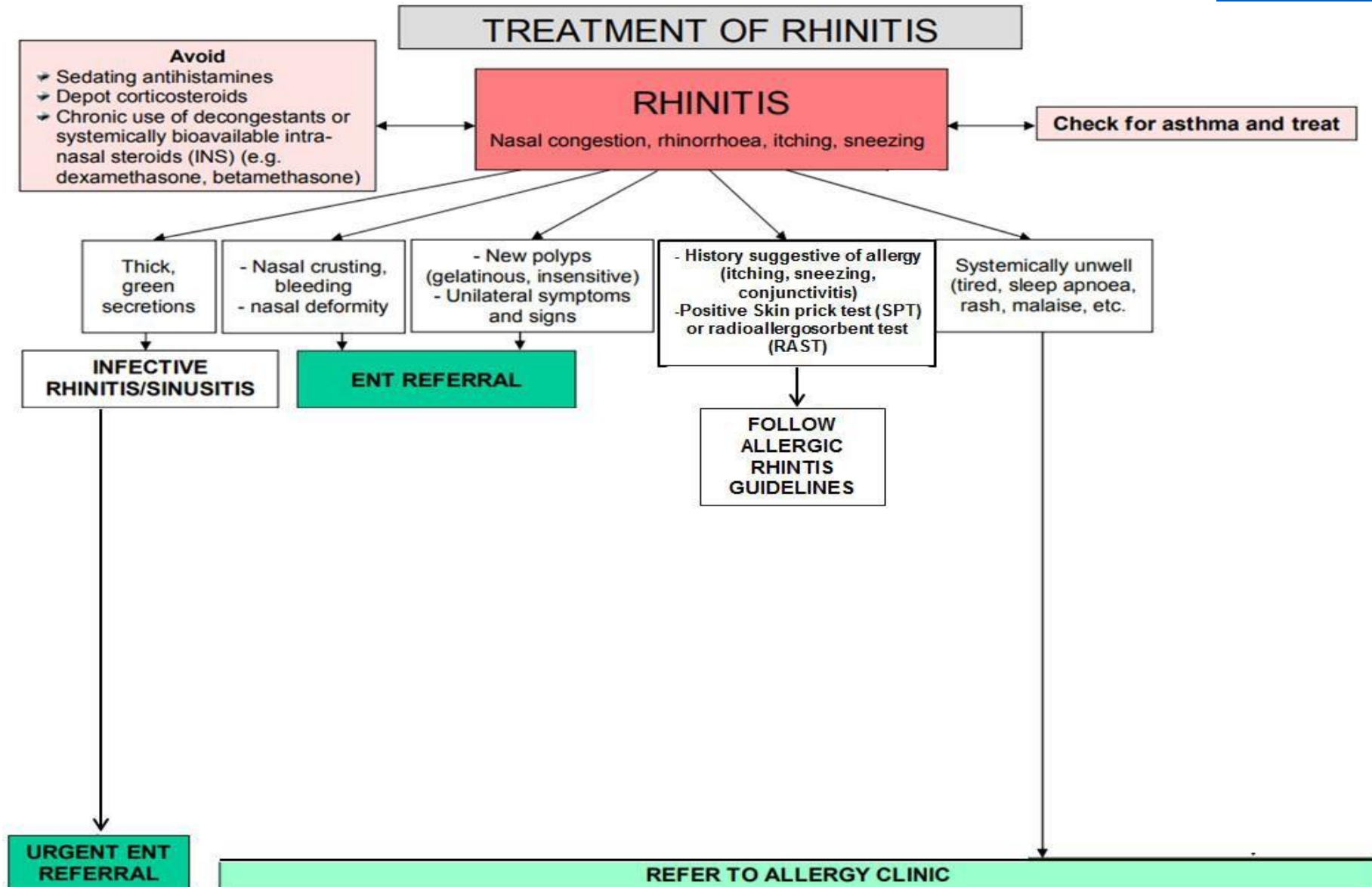
Moderate/
Severe

Intranasal corticosteroids
Mometasone furoate (POM) 50mcg/sp. 100mcg (2sp) into both nostrils OD up to 200 mcg (4sp) into both nostrils OD
Fluticasone PROPIONATE (P) 50mcg/sp. 100mcg (2sp) into both nostrils OD up to 100mcg (2sp) into both nostrils BD
Avamys® (Fluticasone FUROATE) (POM) 27.5mcg/sp 55mcg (2sp) into both nostrils OD.

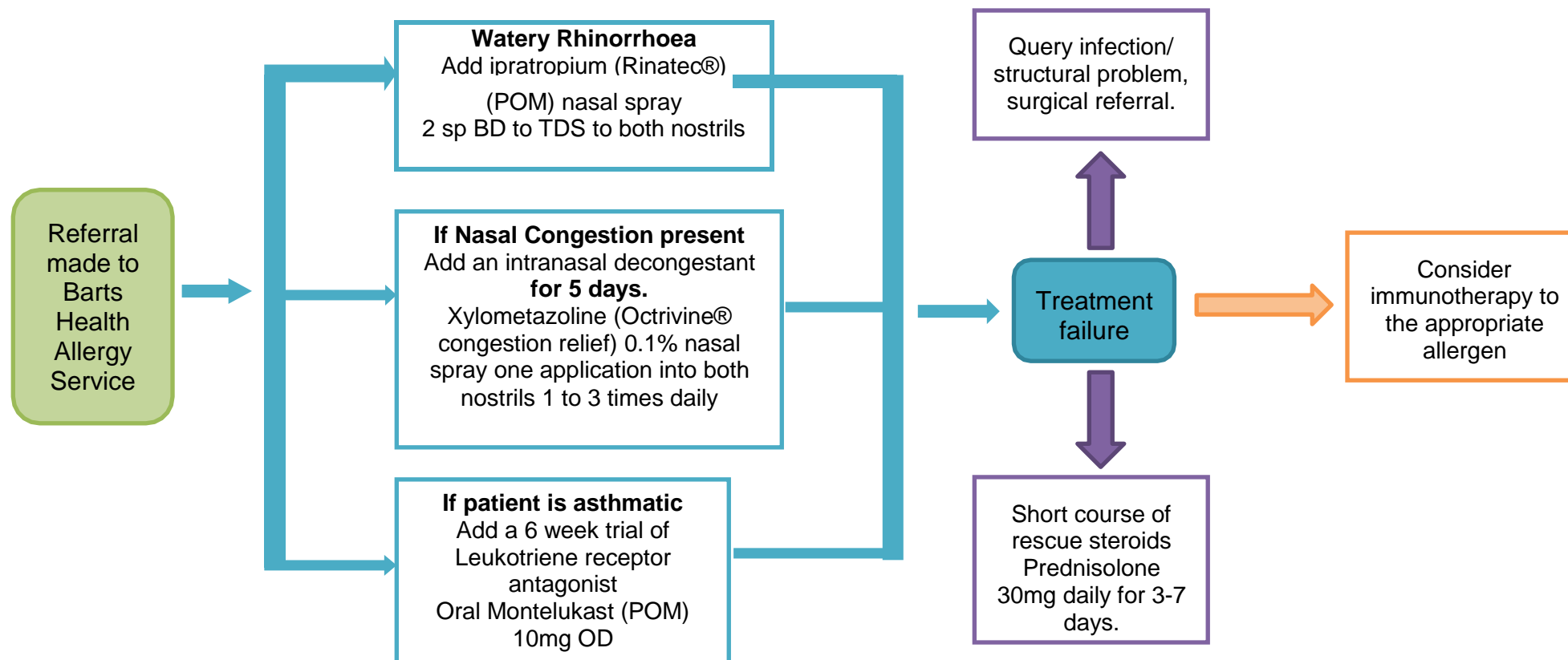
Treatment failure- check dose, concordance and technique.
 Check patient has trialled various combinations of oral antihistamines and intranasal corticosteroids.

Intranasal corticosteroids + Intranasal antihistamine
Dymista® (POM)(Azelastine /Fluticasone propionate 137mcg /50mcg/spray 1sp into both nostrils BD.
Combination intranasal spray to improve adherence.

Treatment failure- check dose, concordance and technique.
 If not controlled then consider referral to Barts Health Allergy Service for consideration of immunotherapy



Treatment of Allergic Rhinitis for adult patients in secondary/tertiary care



Immunotherapy treatment options: consider 1st line subcutaneous options or 2nd line sublingual therapy. They are effective for both seasonal and perennial rhinitis confirmed after a positive skin prick test, +/-sIgE if skin prick test inconclusive. Only be prescribed by an allergy specialist in secondary/tertiary care.

Kenalog injection: depot steroids should not be prescribed for hay fever. Evidence of safety is lacking and there is a significant risk of prolonged side-effects (e.g. osteoporosis) which cannot be mitigated by withdrawal of the drug.

The costs of (POM) medications recommended to treat Allergic Rhinitis

| Medication | Cost per 28 day use at adult dose- Drug Tariff April 2019 ¹⁶ |
|--|---|
| Oral antihistamines | |
| Fexofenadine 120mg tablets (POM) | £1.65 initial dosing |
| Fexofenadine 180mg tablets (POM) | £2.65 initial dosing |
| Leukotriene Receptor Antagonist | |
| Montelukast 10mg tablets (POM) | £1.17 |
| Ocular antihistamine | |
| Olopatadine (Opatanol®) 1mg/ml 5ml pack size (POM) | £4.68 |
| Ocular antihistamine + vasoconstrictor | |
| Otrivine Antistin (P) 0.5%/0.05% eye drops 10mls | £3.35 |

| Medication | Cost per 28 day use at adult dose- Drug Tariff April 2019 ¹⁶ |
|---|---|
| Intranasal Corticosteroids | |
| Mometasone furorate 50mcg/spray 140 dose pack (POM) (NB prescribe generically) | £1.36 initial dosing |
| Avamys (Fluticasone Furoate) 27.5mcg/spray 120 dose pack. (POM) (NB prescribe by brand as cheaper than generic) | £6.01 initial dosing |
| Intranasal Corticosteroids and Intranasal antihistamine | |
| Dymista (fluticasone propionate 50mcg and azelastine 137mg/spray) 120 dose pack (POM) | £13.81 initial dosing |
| Intranasal antihistamine | |
| Rhinolast (Azelastine 140micrograms per actuation) 22mls dose pack (POM) | £7.49 initial dosing |
| Intranasal decongestant | |
| Xylometazoline 0.1% Spray one application into both nostrils 1 to 3 times daily | £2.10 |
| Ipratropium bromide 21micrograms/dose nasal spray (Rinatec) (POM) | £6.54 |

References

1. Laforest L, Bousquet J, Pietri G, et al. Quality of life during pollen season in patients with seasonal allergic rhinitis with or without asthma. *Int Arch Allergy Immunol.* 2005;136:281-286.
2. Blaiss MS. Allergic rhinitis and impairment issues in schoolchildren:a consensus report. *Curr Med Res Opin.* 2004;20:1937-1952
3. Cockburn IM, Bailit HL, Berndt ER, Finkelstein SN. Loss of work productivity due to illness and medical treatment. *J Occup Environ Med.* 1999;41:948-953.
4. Hom MM, Bielory L. The anatomical and functional relationship between allergic conjunctivitis and allergic rhinitis. *Allergy Rhinol (Providence).* 2013;4:e110-e119.
5. Slavin RG. Complications of allergic rhinitis: implications for sinusitis and asthma. *J Allergy Clin Immunol.* 1998;101 Pt 2:S357-S360.
6. Doyle WJ. The link between allergic rhinitis and otitis media. *Curr Opin Allergy Clin Immunol.* 2002;2:21-25.
7. Passalacqua G, Ciprandi G, Pasquali M, Guerra L, Canonica GW. An update on the asthma-rhinitis link. *Curr Opin Allergy Clin Immunol.* 2004;4:177-183.
8. Barry B. Rhino-sinus manifestations of systemic diseases. *Rev Prat.* 2000;50:1548-1550.
9. Thomas M, Kocevar VS, Zhang Q, Yin DD, Price D. Asthma related health care resource use among asthmatic children with and without concomitant allergic rhinitis. *Pediatrics.* 2005;115:129-134.
10. Price D, Zhang Q, Kocevar VS, Yin DD, Thomas M. Effect of a concomitant diagnosis of allergic rhinitis on asthma-related health care use by adults. *Clin Exp Allergy.* 2005;35:282-287.
11. BSACI guidelines for the diagnoses and management of allergic and on-allergic rhinitis (Revised edition 2017). Last accessed 13/01/2019
12. Bauchau V, Durham SR. Prevalence and rate of diagnosis of allergic rhinitis in Europe. *Eur Respir J.* 2004;24:758-764.
13. Blomme K, Tomassen P, Lapeere H, et al. Prevalence of allergic sensitization versus allergic rhinitis symptoms in an unselected population. *Int Arch Allergy Immunol.* 2013;160:200-207.
14. Bernstein IL, Chan-Yeung M, Malo JL, Bernstein DI. Definition and classification of asthma in the workplace. In: Bernstein IL, Chan-Yeung M, Malo JL, ernstein DI, eds. *Asthma in the Workplace.* 3rd edn. ed. New York: Taylor & Francis; 2006:9-35.
15. ARIA at-A-Glance Pocket Reference 2007 1st Edition- Allergic Rhinitis and its impact on asthma. Last accessed 30/8/2017.
16. Drug Tariff, accessed online 16/4/2019