Allergic rhinitis or hayfever is a common condition affecting up to 40% of adults. It is frequently associated with asthma and uncontrolled moderate-to-severe allergic rhinitis impacts asthma control. Allergic rhinitis has been associated with an increased risk of asthma development and asthma severity. Appropriate management of allergic rhinitis improves nasal symptoms, sleep quality and fatigue, as well as asthma control.

Allergic rhinitis

Allergic rhinitis can reduce quality of life by impairing sleep quality and cognitive function, and causes irritability and fatigue.

Symptoms of allergic rhinitis include:
- Nasal itching
- Sneezing
- Nasal congestion
- Itching, redness, excessive tearing of eyes
- Itching of palate
- Postnasal drip
- Cough

Allergic rhinitis may be classified as seasonal or perennial. Seasonal allergic rhinitis is often caused by outdoor allergens such as pollens and moulds; whereas, perennial is frequently caused by indoor allergens such as house dust mites, moulds, cockroaches and animal dander.

The duration of symptoms can be described as intermittent or persistent. Intermittent refers to symptoms occurring less than 4 days a week or for less than 4 consecutive weeks.

Allergic rhinitis and asthma

Allergic rhinitis and asthma frequently co-exist. Up to 40% of people with allergic rhinitis have asthma; and nasal symptoms are present in 6% to 8% of people with asthma. It is good practice to check for symptoms of allergic rhinitis in people with asthma.

An update of the ARIA (Allergic Rhinitis and its Impact on Asthma) guidelines was recently published. These guidelines apply to people to moderate-to-severe allergic rhinitis.

Treatment

People with asthma and allergic rhinitis should have both conditions optimally treated.

For most adults with asthma this involves a regular preventer – starting with a low-dose inhaled corticosteroid (ICS) (Alvesco, Flixotide, Pulmicort, Qvar). If asthma is not controlled with a low-dose ICS, a long-acting bronchodilator can be added for maintenance therapy. Only a few adult patients will require a higher dose regular preventer ICA/LABA combination (Seretide, Symbicort, Breo Ellipta, Flutiform). All patients with asthma should have a reliever medication prescribed for management of acute symptoms (salbutamol, terbutaline).

Omalizumab (Xolair) is beneficial for uncontrolled severe allergic asthma. There are a significant number of restrictions for access to this injectable treatment. It has been shown to improve asthma symptom control and quality of life, as well as reduce use of oral corticosteroids (prednisone, prednisolone).

Treatment of allergic rhinitis includes:
- Intranasal corticosteroids
- Oral antihistamines
- Intranasal antihistamines
- Leukotriene receptor antagonists
- Immunotherapy

Decongestants reduce nasal congestion, but have no effect on other symptoms of allergic rhinitis. Prolonged use (more than 5 days) may cause rebound congestion.

Intranasal corticosteroids

Intranasal corticosteroids are first-line therapy for adults with persistent or moderate-to-severe allergic rhinitis. They act by reducing inflammation and decreasing mucous production. Intranasal corticosteroids are effective in reducing all nasal symptoms associated with allergic rhinitis: itch/sneeze, nasal discharge, nasal blockage and impaired smell.

For people with seasonal and perennial allergic rhinitis, intranasal corticosteroids are recommended in preference to intranasal antihistamines. There is a greater reduction in nasal symptoms.

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All intranasal corticosteroids have similar efficacy and onset of action, with effects seen after several days of use. They are effective if used on as-needed basis. It is important that they are administered correctly to achieve the best effect and avoid adverse effects such as nose bleeds.

Intranasal corticosteroids include:
- Beclomethasone (Beconase Allergy & Hayfever 12 Hour)
- Budesonide (Rhinocort Hayfever, Budamax)
- Ciclesonide (Omnaris)
- Fluticasone (Flixonase Nasule Drops, Avamys, Flixonase Allergy & Hayfever 24 Hour)
- Mometasone (Nasonex, Sensease)
- Triamcinolone (Telnase)

Fluticasone is also available in combination with an antihistamine azelastine (Dymista).

Intranasal antihistamine sprays may be used in combination at the initiation of treatment (first 2 weeks) for a rapid effect.

**Intranasal antihistamines**

Intranasal antihistamines are less effective than intranasal corticosteroids, but as effective as oral antihistamines. The choice between intranasal and oral antihistamines will depend on patient preference.

- Azelastine (Azept)
- Levocabastine (Livostin, Zyrtec Levocabastine)

**Oral antihistamines**

All oral sedating and less sedating antihistamines appear to be equally effective, but are less effective than intranasal corticosteroids in relieving itch/sneeze and nasal discharge. They have little or no effect on nasal congestion. Sedating antihistamines (e.g. Polaramine, Phenergan, Avil) should be avoided in older people due to an increased risk of dizziness, sedation, hypotension, falls, anticholinergic effects (confusion, dry mouth, constipation, urinary retention).

Less sedating oral antihistamines are preferred in older people, but may still cause some sedation and anticholinergic effects.

- Cetirizine (Zyrtec)
- Desloratadine (Aerius)
- Fexofenadine (Teifast)
- Loratadine (Claratyne)

Numerous generic brands are available in pharmacies.

Fexofenadine should not be taken with grapefruit or apple juice. Grapefruit and grapefruit juice should be avoided altogether, but apple juice may be consumed at least 4 hours apart from fexofenadine.

**Leukotriene receptor antagonists**

Leukotriene receptor antagonists (LTRAs) may be beneficial in concomitant seasonal allergic rhinitis and asthma, especially exercise-induced bronchoconstriction or aspirin exacerbated respiratory disease (AERD). Montelukast (Singular) is less effective than intranasal corticosteroids, and possibly comparable to oral antihistamines. It has been found to improve nasal and bronchial symptoms with a reduction of reliever use.

Benefits should be seen within 7 days of commencement of therapy. Montelukast is available as a chewing tablet as well as a normal oral tablet; but is not available on the Pharmaceutical Benefits Schedule for adults.

**Combination therapy**

In people with seasonal allergic rhinitis use of a combination of intranasal corticosteroids and oral antihistamines is recommended for faster relief of symptoms. In older people newer, less sedating oral antihistamines are preferred. Intranasal antihistamines can also be used in combination with intranasal corticosteroids, depending on patient preferences.

In people with perennial allergic rhinitis, an intranasal corticosteroid alone is recommended, as there is no additional benefit from a combination therapy and there are undesirable adverse effects from the long-term use of oral antihistamines.

**Summary**

Allergic rhinitis and asthma frequently coexist. Optimal treatment of both conditions will improve nasal and ocular symptoms of allergic rhinitis and control of asthma, as well as quality of life. Intranasal corticosteroids are first-line therapy for the treatment of intermittent and persistent allergic rhinitis. Oral or intranasal antihistamines can be used in combination with intranasal corticosteroids for a faster effect in the treatment of seasonal allergic rhinitis.

**References**

*Journal of Allergy and Clinical Immunology* 2017.