

Therapeutics for the Busy GP

Hay fever (seasonal allergic rhinitis)

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Seasonal allergic rhinitis (hay fever) is the most common type of allergic rhinitis and is due to a specific allergic reaction of the nasal mucosa, principally to pollens.

Most cases of hay fever begin in childhood with one half having the problem by the age of 15 and 90% of eventual cases by the age of 30. Approximately 20% suffer from attacks of asthma.

Patients with hay fever mainly have sneezing, rhinorrhoea, nasal congestion and itching of the eyes, nose and throat.

Management

Management consists broadly of three main areas:

1. allergen avoidance (very difficult)
2. pharmacological treatment
3. immunotherapy.

Pharmacological therapy

Therapy can be chosen from:

1. oral antihistamines
2. decongestants (oral or topical)
3. topical sodium cromoglycate
 - intranasal: powder insufflation or spray (not very effective)
 - ophthalmic drops for associated conjunctivitis
4. corticosteroids
 - intranasal
 - oral (very effective if other methods fail)
 - ophthalmic drops for allergic conjunctivitis.

Antihistamines

Antihistamines are the first-line treatment for allergic rhinitis. The newer generation antihistamines that do not cross the blood-brain barrier are used in preference to the first generation antihistamines, which cause variable degrees of drowsiness. However, some degree of sedation may occur even with these. Available non-sedating antihistamines are presented in *Table 1*.

Table 1. Non-sedating antihistamines (oral regimens)

Generic name	Onset	Dosage
Astemizole	Relatively slow	10 mg daily
Loratadine	Very rapid	10 mg daily
Terfenadine	Rapid	60 mg bd
Cetirizine	Rapid	10 mg daily or bd.

Intranasal therapy

Intranasal decongestants should be used for limited periods only (that is, less than a week) or intermittently (3 or 4 doses per week) because of the potential problems with rebound congestion and rhinitis medicamentosa. They are often of particular value during the first week of treatment with intranasal corticosteroids (where the onset of action is delayed several days), improving nasal patency and allowing more complete insufflation of the latter medication. Adverse reactions similar to those of oral decongestants may occur.

Intranasal corticosteroid sprays are the most effective agents for treating seasonal allergic rhinitis. Side effects are minimal and adrenal suppression is not a problem with normal usage. Patients should be informed that these medications will not give immediate relief (often taking 10-14 days to have peak effect) and must be used continuously throughout the hay fever seasons.

Intranasal sodium cromoglycate acts by preventing mast cell degranulation and is effective without serious side effects. The capsule variety must be used (the spray form requires 1-2 hourly dosage to be effective) and is useful in perennial allergic rhinitis but is not as effective as intranasal corticosteroids for springtime hay fever.

Oral corticosteroids

Corticosteroids (oral) can be generally effective where other treatments or methods have failed. The topical anticholinergic ipratropium bromide (Atrovent Nasal) is often effective where rhinorrhoea is the major problem.

Oral decongestants

Oral sympathomimetics either used alone or in combination (where they may help reduce drowsiness) with antihistamines may be of value particularly where nasal discharge and stuffiness are major symptoms. Side effects include nervousness, insomnia, while they should be used cautiously in patients with hypertension, heart disease, hyperthyroidism, glaucoma and prostatic hypertrophy.

Ophthalmic preparations

Sodium cromoglycate eyedrops are usually very effective for springtime conjunctivitis. They can be used as necessary (there is no dosage limit) and are most helpful when used prophylactically before periods of high pollen exposure. Decongestant eyedrops may also be helpful (care with narrow angle glaucoma), while corticosteroid eyedrops are reserved for resistant allergic conjunctivitis and should be used with care to exclude infection and glaucoma.

Table 2 lists intranasal preparations for rhinitis, and *Table 3* gives a summary of recommended treatment steps.

Table 2. Intranasal preparations for rhinitis

	Brand name	Dosage
Beclomethasone dipropionate	Aldecin nasal Beconase nasal	100 microg bd or tds
Budenoside	Rhinocort nasal	100-200 microg bd
Flunisolide	Rhinalar nasal	50-100 microg tds, prn
Tramazoline + dexamethasone	Tobispray	Spray once tds prn
Ipratropium bromide	Atrovent	1-2 puffs tds, prn
Various sympathomimetics (eg, tramazoline, oxymetazoline)		2, 3 or 4 times daily (maximum 7 days).

Table 3. Allergic rhinitis - recommended treatment steps

- patient education
- allergen avoidance (if possible)
- non-sedating antihistamines
 - astemizole 10 mg daily, or
 - loratadine 10 mg daily, or
 - terfenadine 60 mg daily, or
 - cetirizine 10 mg bd or daily

or

- intranasal corticosteroids (the most effective)
 - beclomethasone
 - budesonide, or
 - flunisolide.
- sodium cromoglycate (Opticrom) drops use qid prn.

If topical inhaled agents ineffective:

- prednisolone, eg, 25 mg (o) daily for 10 days.

Immunotherapy to grass pollen is generally very effective and should be considered as a therapeutic option in moderate to severe springtime hay fever.