Rhinitis: allergic

Noses run in general practice – a lot! This review in the Lancet focused chiefly on allergic rhinitis but is very comprehensive and helpful (Lancet 2011;378:2112)

First, classification (which keeps changing)

There has been a move away from the terms seasonal and perennial (because people can suffer from a mix of both, and seasons don’t exist in some parts of the world)

Rhinitis

Allergic

(occupational and non-allergic)

Non-allergic

Allergic rhinitis sub-classification by frequency and severity:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Severity</th>
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<tbody>
<tr>
<td>Intermittent</td>
<td>Mild (Normal sleep pattern, normal daily activities, school, work)</td>
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<tr>
<td>Persistent</td>
<td>Moderate to severe (Abnormal sleep, impaired daily activities, troublesome symptoms)</td>
</tr>
<tr>
<td>(&lt;4d per week or &lt;4w at a time)</td>
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<tr>
<td>(≥4d per week or ≥4w at a time)</td>
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Why is it important?

- Persistent allergic rhinitis can impair quality of life (to a similar level to asthma).
- Poor asthma control is linked to moderate to severe rhinitis.
- Up to one-third of patients who get acute sinusitis will have allergic rhinitis.
- 80% of patients with chronic sinusitis will have allergic rhinitis.
- UK studies show 15–16 year olds with allergic rhinitis (‘hay fever’) perform less well in exams.
- Differential diagnosis is legion.

Making the diagnosis

Rhinitis is characterised by:

- Nasal itching.
- Rhinorrhea (forwards or backwards).
- Sneezing.
- Nasal obstruction.

Distinguishing between allergic and non-allergic can be problematic in primary care

Two-thirds of children and one-third of adults with symptoms of rhinitis will have allergic rhinitis.

Patients with allergic rhinitis will often get allergic conjunctivitis (50–70%).
Diagnosis by history and examination is usually sufficient in primary care with the use of serum-specific IgE (RAST) or skin-prick tests rarely justified.

**Differential diagnosis**

Be ready to look up people’s noses!

<table>
<thead>
<tr>
<th>Structural abnormalities</th>
<th>Hormonal</th>
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<td>• Deviated septum</td>
<td>• Pregnancy</td>
</tr>
<tr>
<td>• Polyps</td>
<td>• Menstrual cycle</td>
</tr>
<tr>
<td>• Foreign body</td>
<td>• Acromegaly</td>
</tr>
<tr>
<td>• Adenoidal hypertrophy</td>
<td>• Hypothyroidism</td>
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<td>• Choanal atresia</td>
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**Management**

**Stage 1**

All guidance emphasises the importance of allergen avoidance, yet studies that have looked at the benefits of this have shown that complete avoidance is rarely possible and results are equivocal.

Worldwide the commonest allergens are house dust mite and grass and tree pollens. Many patients with allergic rhinitis have nasal hyper-reactivity to non-specific elements such as smoke, pollution or changes in temperature. Explanation of this can help reduce symptom levels (see Practical tools box below).

**Stage 2**

**In mild cases** an oral non-sedating antihistamine is advised first line (loratadine or cetirizine):

- NNT quoted, without time scale in this paper, as 15.2.

**In moderate to severe,** start with topical nasal steroids:

- NNT quoted as 4.4 (with NNH, usually nosebleeds, as 48).

If treatment fails add in the other agent. Topical nasal antihistamines are an option.

**Stage 3**

Check adherence to treatments, particularly nasal steroids.

Consider leukotriene receptor antagonist if asthmatic/atopic.

In watery rhinorrhea alone, consider ipratropium nasal spray (also useful alone for old man’s drippy nose, but remember anticholinergic side-effects).

**Stage 4**

Consider short-term oral steroids.

Intramuscular corticosteroid injections are associated with systemic side-effects, muscular and subcutaneous necrosis and are not advised.

If nasal blockage predominates, check for polyps. Consider nasal steroid drops; these should be given in the ‘head down’ position.

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Stage 5

Consider referral for ENT surgery if blockage or sinusitis a problem, or if immunotherapy is warranted.

Sublingual immunotherapy is available against timothy grass (Gravax). This was reviewed last year by the DTB and considered not cost-effective (further details available in our Online Handbook).

Subcutaneous immunotherapy is gaining ground again after years of being shunned. Some cohort studies have demonstrated that patients treated for allergic rhinitis in this way between 6 and 14 years subsequently went on to have less likelihood of a diagnosis of asthma 7 years later.

Oral allergy syndrome

Oral allergy syndrome is associated with allergic rhinitis, particularly to birch pollen, so we have included it here because it is worth knowing about.

- Patients develop cross-reactivity to certain fruit and vegetables.
- They typically develop itchiness, tingling, erythema and swelling of the tongue, lips and soft palate after oral contact with the trigger.
- About 1% can develop anaphylaxis. Patients with oral allergy syndrome should be referred for further advice.

**Allergic rhinitis**

- Quality of life impact can be as great as with asthma.
- Intermittent/persistent terms now preferred rather than perennial/seasonal.
- Be aware of the other possible diagnoses and be ready to look up noses.
- Oral antihistamines and topical nasal steroids form the mainstay of treatment.
- ‘Head down’ drops should be advised.
- Concordance is often the cause of failed treatments.
- Subcutaneous immunotherapy is making a comeback.

**Professional development**

- Do you have access to an ENT email advice line, which you can use instead of referral to outpatient secondary care to get timely specialist advice on the management of refractive ENT conditions?
- Audit your email advice line queries. What proportion have prevented the need for an outpatient referral?

**Practical tools**

- Advice for parents from Great Ormond Street Hospital on how to give a child nasal spray, drops or ointment: [www.gosh.nhs.uk/medical-information/medicines-information/how-give-your-child-nose-ointment-drops-or-spray](http://www.gosh.nhs.uk/medical-information/medicines-information/how-give-your-child-nose-ointment-drops-or-spray)

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