

Implementing the BSACI guideline for the diagnosis and management of allergic and non-allergic rhinitis¹

Epidemiology

- Allergic rhinitis affects 10–15% of children and 26% of adults in the UK
- It has a significant impact on quality of life, and interferes with performance and attendance at school and work
- Rhinitis is strongly associated with asthma—around 74–81% of people with asthma report symptoms of rhinitis

Classification

Allergic rhinitis

- Symptoms are caused by IgE-mediated reaction to allergens
- Can be further classified into seasonal and perennial rhinitis (this is useful for diagnosis and allergen-specific therapy)
- A positive diagnosis is more likely in patients with symptoms of sneezing, nasal itching, or itching of the palate

Non-allergic rhinitis

- Symptoms of rhinitis that have no identifiable allergic triggers
- Diagnosis is confirmed by exclusion in cases negative for systemic IgE, when other causes of rhinitis have been ruled out

Symptoms

- Rhinorrhoea (anterior, posterior, or both)
- Nasal obstruction (partial or complete):
 - bilateral—likely due to rhinitis but consider nasal polyps or septal deviation
 - unilateral—consider septal deviation, foreign body, antrochoanal polyp, and tumours
- Nasal crusting (NB severe crusting, especially high inside the nose, is unusual in rhinitis):
 - consider chronic rhinosinusitis, nose picking, or cocaine abuse
- Eye symptoms (intense itching, redness, swelling of white of the eye, lid swelling, periorbital oedema [in severe cases])
- Lower respiratory tract symptoms:
 - cough, wheeze, and shortness of breath
- Other symptoms:
 - snoring, sleep problems, repeated sniffing, nasal intonation of voice
 - pollen–food syndrome triggered by cross-reacting ingested allergens

Diagnosis

- Take a detailed history, including:
 - seasonality
 - work location (occupational rhinitis)
 - presence of house pets
 - indoors or outdoors location
 - any improvement of symptoms on holidays
 - family history of rhinitis
 - relationship to potential triggers (including drugs)
- Perform a visual examination, taking note of any of the following clinical features:
 - horizontal nasal crease
 - chronic mouth breathing
 - obstructed nasal airflow
 - altered nasal bridge
- Perform an anterior rhinoscopy, taking note of any of the following clinical features:
 - hypertrophic, pale, and boggy inferior or middle turbinates
 - presence of secretions or polyps
 - throat appearance—cobblestoned, lymphoid hyperplasia, post-nasal drip
 - septal perforation
- Investigate the presence of allergen-specific IgE:
 - use a skin prick test, or measure serum-specific IgE or total IgE
 - use other laboratory investigations if necessary, based on history, examination, and result of skin prick testing

Treatment*

- Advise patient to avoid allergens as far as practically possible
- Consider isotonic saline irrigation—this may reduce the amount of pharmacotherapy required
- Consider carbon dioxide washing—this can reduce all the symptoms of rhinitis within minutes
- Use a stepwise pharmacotherapeutic approach (a combination of treatments is often required for severe disease)

Treatment* (continued)

H₁-antihistamines

- Offer first line for mild-to-moderate intermittent rhinitis and mild persistent rhinitis
- Oral H₁-antihistamines:
 - should be used regularly rather than ‘as needed’
 - acrivastine has the fastest onset of action, but needs to be taken every 8 hours
 - fexofenadine is the least sedating oral antihistamine
- add to INS for treatment of moderate or severe persistent rhinitis that is uncontrolled on topical INS alone, particularly when eye symptoms are present
- Topical intranasal H₁-antihistamines:
 - faster onset of action than oral antihistamines (15 minutes), and superior relief of rhinitis symptoms
 - less effective than INS in relieving allergic rhinitis symptoms
 - use continuously or on demand for breakthrough symptoms
- add to INS for treatment of moderate or severe persistent rhinitis that is uncontrolled on topical INS alone

Intranasal corticosteroids

- Effective mainstay of inflammatory intervention in allergic rhinitis
- Offer first line for moderate to severe persistent rhinitis
- Offer first line for severe nasal obstruction, possibly combined with a short-term nasal decongestant (NB steroid drops or oral steroids should be used initially for up to 1 week)
- Advise patient that clinical improvement may not be apparent for a few days
- Start treatment 2 weeks prior to known allergy season to improve efficacy

Combination therapy

- Use a combination of topical antihistamine with INS if symptoms remain uncontrolled on either antihistamine or INS monotherapy, or on a combination of oral antihistamine with INS

Intranasal decongestants

- Use to relieve nasal congestion—only short-term use of up to 10 days is recommended
- Use to increase nasal patency to allow delivery of drugs beyond inferior turbinates

Anti-leukotrienes

- Can be offered to patients with seasonal allergic rhinitis and concomitant asthma

Topical anti-cholinergic

- Consider use if watery rhinorrhoea symptoms persist despite compliance with INS monotherapy or INS with antihistamine

Chromones

- Can be used to treat rhinitis symptoms in patients who are unable to take other medications (e.g. pregnant women)
- Useful to treat conjunctivitis

Ocular therapy

- Oral antihistamines and intranasal agents can suppress ocular manifestations of seasonal rhinoconjunctivitis
- Immunotherapy, where indicated, can also be effective for eye symptoms
- Ensure that use of topical steroids to treat eye symptoms is supervised by an ophthalmologist
- Advise patient that wearing sunglasses reduces eye symptoms

Immunotherapy

- Can improve symptoms, reduce medication requirements, and improve quality of life
- Subcutaneous injection immunotherapy is effective for seasonal rhinitis due to pollens
- Sublingual immunotherapy is an effective treatment for allergic rhinitis caused by certain allergens

Treatment of non-allergic rhinitis

- Base treatment choice on nasal smear examination
- If there is inflammation, use anti-inflammatory therapy
- If there is no inflammation, use anti-cholinergic therapy or capsaicin

BSACI=British Society for Allergy and Clinical Immunology; IgE=immunoglobulin E; INS=intranasal corticosteroid

* Refer to the full guideline¹ and the individual summaries of product characteristics for further information and recommendations regarding the use of pharmacological therapies

1. Scadding GK, Kariyawasam H, Scadding G et al. BSACI guideline for the diagnosis and management of allergic and non-allergic rhinitis (Revised Edition 2017; First edition 2007). *Clin Exp Allergy* 2017; **47**: 856–889.