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PERSPECTIVE

A practical approach to managing asthma and rhinitis

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The young woman who has attended for her asthma review in the above clinical scenario[1] is obviously experiencing sub-optimal asthma control as indicated by her nocturnal and exertional symptoms.[2]

As is the case when any patient attends for review, the Royal College of Physicians' Three Questions[3] or a validated questionnaire such as the Asthma Control Test[4] should be used to assess accurately the current level of asthma control.[5] In this instance[1] the patient is poorly controlled and the clinician has to ascertain the reasons for this. We are told that she has good inhaler technique, is complying with her prescribed medication, and there has been no change in her circumstances. Therefore, other environmental influences, co-morbidities, or diagnoses must be sought.

Important questions include the time of year she is presenting, and her occupation. Although we are told there has

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been no change in her circumstances, occupational rhinitis and asthma can develop even when an individual has been working in the same environment for some time. Accurate and early recognition of occupational rhinitis is useful in the prevention and early diagnosis of occupational asthma, since nasal symptoms often precede the development of chest symptoms.[2] New hobbies may pose a similar risk as occupational rhinitis. It is therefore important to ask detailed questions regarding current employment and activities and whether or not symptoms are better on days away from work.[6]

However, it is more likely that this young woman has undiagnosed or untreated seasonal allergic rhinitis which is contributing to her poor asthma control, particularly given the family history of hay fever and her occasional sneezing in the summer months.

Identifying allergens

A detailed and accurate history is critical to the proper diagnosis of allergic rhinitis and its successful treatment (see Table 1). A physical examination should focus on the nose and eyes (see Table 2) as well as the chest (if there is co-morbid asthma). The patient should be asked about exposure to common aeroallergens such as pollens, spores and moulds, animal dander (cat, dog, horse), weeds, and house dust mite. Exposure to pollens, moulds and weeds is likely to cause seasonal symptoms, whereas pet dander and house dust mite may cause perennial symptoms. Successful allergen avoidance advice depends on:

- Accurate identification of the allergen causing the symptoms
- Patient education and practical advice about allergen avoidance
- Regular follow-up with reinforcement

A detailed history and examination is generally sufficient to confirm the diagnosis in primary care. However, in some instances skin prick testing (SPT) may confirm the clinical suspicion of an allergy and enable appropriate allergen avoidance advice to be given.

Table 1. Taking a history from a patient with asthma and suspected rhinitis

Important questions to ask:

- Specific upper respiratory symptoms in addition to her asthma symptoms e.g. running, blocking, tearing, sneezing
- Onset of symptoms, progression and severity
- Duration of symptoms
- Relationship to the seasons – symptoms may correlate with the onset of the pollen season and become more symptomatic as the season progresses
- Associated ocular, pharyngeal and asthma symptoms
- Potential causal and exacerbating factors
- Association with other atopic conditions such as allergic conjunctivitis
- Medication use both prescribed and over the counter

Table 2. Examination of a patient with asthma and suspected rhinitis

Observe the patient for:

- Mouth breathing
- Repeated nose wiggling, wiping and pushing (allergic salute)
- An obvious nasal crease

Examination of the nose, looking for:

- Pale blue and boggy nasal turbinates with a clear watery discharge
- Inflamed or reddened mucosa
- Enlarged turbinates obstructing the nasal airway
- Presence of nasal polyps which may appear as rounded, white glistening masses resembling peeled grapes
- Structural abnormalities such as a deviated septum
- Characteristics of drainage –clear or purulent, watery or thick

Skin prick testing

Skin prick testing (SPT) to aeroallergens can be performed in general practice by a trained healthcare professional and the

Table 3. A guide to skin prick testing in primary care

Benefits	• Simple, reliable technique, which only takes 15 minutes to carry out • Interpreted in the context of the clinical history, the results are visual, which can reinforce patient education.
Equipment	Commercially available kits contain the most common aeroallergens and are available from pharmaceutical companies; these kits usually contain: • Positive and negative control solutions • Solutions containing grass pollen mix, tree pollen mix, house dust mite, cat-dog and aspergillus which are suitable for use in primary care. • Less commonly used solutions such as weed pollens and moulds (alternaria and cladosporium) can be ordered and also used safely in primary care Also required: lancets, tissues and a transparent ruler
Safety and cost	• A selection of in-date allergens must be kept on the premises and stored in a refrigerator • If the cost of material and allergens is not reimbursable (e.g. in the UK) primary care must bear the costs of SPT which may limit the range of allergens available. • Testing for aeroallergens is safe to perform in primary care but testing to food, drugs and venom should only be carried out in specialist centres with access to resuscitation equipment because of the risk of systemic reactions.
Training	Accredited training for healthcare professionals should encompass • Technical aspects of the safe and accurate performance of the SPT • Skills and expertise in indications for and interpretations of SPT

Table 4. Strategies for proactive management of people with seasonal rhinitis and asthma

- Ensure there is appropriate coding of the diagnosis of allergic rhinitis on the practice computer system.[8]
- Perform a search of patients taking regular antihistamines, nasal sprays or eye drops for allergic conjunctivitis
- Invite patients to attend for review before the beginning of the season to ensure appropriate medication is commenced, technique with their nasal spray and inhaler is good and that their asthma control is optimised.
- Commence treatment two weeks before allergen exposure appears.
- Review the patient's asthma action plan to ensure that it includes advice about rhinitis.
- Encourage patients to make a follow up appointment if symptoms persist despite treatment

results are available within 15 minutes (see Table 3).

The results of SPT must always be correlated with the patient's history. SPTs are highly sensitive (they detect low levels of sensitisation to allergens) and therefore a positive response to a particular allergen does not necessarily mean the allergen is the cause of the patient's symptoms. However, a positive SPT with a corroborating history means that allergen avoidance advice can be confidently given to the patient. For inhaled allergens, a good correlation exists between the results of SPT levels of specific IgE and bronchial or nasal challenge.

Referral for specialist advice

Referral for more extensive investigation and management should be considered if symptoms do not respond to conventional treatment, if the morbidity associated with allergic rhinitis is considerable (i.e. leading to poor sleep, worsening of asthma symptoms, poor concentration, loss of time from work or education), or if examination findings warrant (e.g. large nasal polyps, nasal septum deviation).

Reducing the burden of disease

Despite evidence that co-morbid rhinitis is associated with clinically important worsening in asthma control which results in substantial increases in health care utilisation including emergency room attendance, hospitalisation, primary care consultation and treatments for asthma,[1,7] many patients tolerate symptoms.

In primary care we have the opportunity to improve morbidity by managing both allergic rhinitis and asthma proactively (see Table 4 for some practical strategies). We should be able to identify patients with both conditions, identify and review people with seasonal rhinitis (such as the young woman in the clinical scenario[1]) before the start of the season, and offer a holistic approach to treatment and management.

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