Managing hay fever during the exam period

In this article...
- The symptoms of hay fever
- Tips for managing and reducing symptoms
- Treatment options

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Hay-fever symptoms are common and debilitating and can have a detrimental effect on students’ examination results. It is important to provide effective treatment using medication that optimises symptom control while ensuring drug side-effects are minimised. Research has confirmed that uncontrolled hay fever or medication side-effects can have a detrimental outcome on exam results. Ideally treatment should commence shortly before the start of the hay-fever season.

Seasonal allergic rhinitis (hay fever) symptoms range from mild to severe and can include a runny or blocked nose, itchy, red or watery eyes, frequent sneezing and an itchy feeling in the mouth, throat, nose or ears. There is a relationship between high pollen counts and symptoms appearing shortly after exposure to allergens. Hay fever is often regarded as trivial but not by those who have the condition; the symptoms can significantly affect a person’s quality of life, leading to headaches, difficulty sleeping and impaired concentration during the day (Pearce, 2012). Objective testing such as blood immunoglobulin E (IgE) levels or skin-prick testing is not usually necessary in straightforward hay fever unless the relationship between exposure and symptoms is not clear (Pearce, 2012).

Management
A diagnosis of hay fever can be confirmed by identifying whether the symptoms fit with a pattern of histamine release relating to the pollen season; symptoms usually occur within 15 minutes of exposure to allergens (Pearce, 2012). Objective testing such as blood immunoglobulin E (IgE) levels or skin-prick testing is not usually necessary in straightforward hay fever unless the relationship between exposure and symptoms is not clear (Pearce, 2012).

Exam season is a stressful time of year for all students, particularly those who are also experiencing hay-fever symptoms. Controlling these symptoms and minimising side-effects can help to reduce stress and can have a positive effect not only on students’ examination results but also, potentially, their future academic and career options.

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5 key points
1 Symptoms of hay fever are debilitating and can interfere with concentration
2 Studies have demonstrated that not receiving treatment, or receiving inappropriate treatment, can have a detrimental effect on exam results
3 Practical steps can be taken to manage hay fever symptoms but medication may be needed
4 Treatment should be planned and started promptly, ideally before the start of the hay-fever season
5 A short course of oral corticosteroids may be used to treat severe, uncontrolled symptoms

Watery eyes are a common symptom
more common in the children of parents who are atopic. It is impossible to completely avoid exposure to airborne allergens, such as grass pollen, but steps can be taken to minimise exposure when pollen counts are high. The Allergy UK website (www.allergyuk.org) lists a number of ways to reduce exposure, including the following:

» Monitor pollen forecasts daily and stay indoors wherever possible when the count is high (generally on warmer, dry days) – rain washes pollen from the air so counts should be lower on cooler, wet days;
» Limit outdoor trips to rural areas – sea breezes blow pollen inland, so escape to the sea instead;
» Minimise exposure to freshly mown lawns;
» Wear wrap-around sunglasses when outdoor to minimise eye exposure to allergens;
» If travelling by car, keep the windows closed – cars should have an effective pollen filter;
» Consider applying a “pollen barrier” to the edge of each nostril (available as balms or gels), or use petroleum jelly as an alternative;
» If you go out, shower and wash your hair on return to reduce the amount of pollen brought indoors, and limit the amount of outdoor clothing lying around in the bedroom;
» Avoid drying clothes and bedding outdoors when pollen counts are exceptionally high;
» Don’t let pets get close to your face as their fur will carry pollen.

Alcohol consumption also has an influence on increasing total IgE levels, which can aggravate the symptoms of rhinitis (Linneberg et al, 2003).

Medications

Medications that block histamine release work best if started a couple of weeks before the start of hay-fever season. The challenge for most people is remembering how they felt when they had hay-fever symptoms the previous year to prompt them to start treatment early. Hay-fever medication management consists of a combination of non-sedating antihistamines, long-acting topical nasal corticosteroids and anti-inflammatory eye drops (Angier et al, 2010). Other treatments include decongestant sprays, leukotrienes receptor antagonists, oral corticosteroids and immunotherapy.

Corticosteroids

Corticosteroids are potent anti-inflammatory agents that are often recommended as a first-line therapy (Scadding et al, 2008). They are used once or twice daily, depending on the formulation, as a nasal spray and may also reduce the ocular effects of the allergy. The anti-inflammatory action may take a few days to have a noticeable effect so corticosteroids should be started at least five days before the symptoms are predicted to start. In order to avoid nose bleeds, users should be taught correct device technique (Box 2).

In severe cases, oral corticosteroids may be prescribed but these should be used briefly and always in combination with a topical nasal corticosteroid. A suggested regimen for adults is 0.5mg/kg, which is given orally in the morning with food for 5–10 days – typically, 20-30mg of prednisolone can be given every day for five days to those individuals who are particularly symptomatic at a critical time, for example when sitting exams (Scadding et al, 2008).

Antihistamines

Histamine is the main progenitor of the allergic rhinitis response, so it is not surprising that antihistamines are an effective therapy for hay-fever symptoms. They are often used when the symptoms of allergic conjunctivitis are present; although they may relieve many hay-fever symptoms, nasal congestion can persist. Antihistamines normally begin acting within 20-30 minutes and should last for several hours. Non-sedating antihistamines are the preferred choice and may be used in conjunction with a nasal spray (Scadding et al, 2008).

Mast cell stabilisers

Mast cell stabilisers come in the form of eye drops and can be used for eye symptoms that are uncontrollable. Sodium cromoglycate eye drops are effective in children but need to be used four times a day. Preservatives in these products may damage contact lenses so contact-lens wearers should avoid using them (Joint Formulary Committee, 2013).

Decongestant nasal sprays

Decongestant nasal sprays can be bought without prescription at pharmacies. They may provide short-term relief but should not be used for more than a few days – seven at the most – as they will have a diminishing effect and can cause a rebound exacerbation of symptoms.

Leukotriene receptor antagonists

Leukotriene receptor antagonists have a produce licence for use in people who have both asthma and hay fever (Joint Formulary Committee, 2013). They come in tablet form and should be taken once per day. These work by blocking the part of the inflammatory cascade that is initiated when the sensitised individual is exposed to an allergen.

"Ask yourself if you would be happy with the care your patient is receiving”
Joan Myers  p26

BOX 1. POLLEN SEASONS

- Tree pollen: late March to mid-May
- Grass pollen: mid-May to July
- Weed pollen: end of June to September

Source: Met Office (2013)

BOX 2. USING A NASAL SPRAY

- Blow nose before spraying, if blocked by mucus
- Prime the spray device according to the manufacturer’s instructions (including removing the cap)
- Tilt head slightly forward. Using the opposite hand to the nostril, gently insert the nozzle. This ensures the device is inserted at the correct angle, with the nozzle parallel to the roof of the mouth and tilted away from the septum
- Apply one actuation at a time. Avoid sniffing hard both during and after spraying. Sniffing could force the spray into the back of the throat instead of inside the nose where it needs to work
- Repeat the process, remembering to use the opposite nostril
- Wipe the tip of the spray device with a dry tissue, and put the cap back on

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Grass pollen immunotherapy
Grass pollen immunotherapies are effective for those with mono-sensitive IgE – single-mediated allergen. Desensitisation is sometimes used when the person is severely affected and other treatments have been unsuccessful.

These therapies can be administered through subcutaneous injections or sublingual immunotherapy tablets. Over a period of weeks the patient is given a series of injections containing an increasing concentration of the specific allergen; alternatively they can take tablets over three years.

A Cochrane review concluded that “sublingual immunotherapy is a safe treatment, which significantly reduces symptoms and medication requirements in allergic rhinitis” (Radulovic et al, 2010). Current guidance from the British Society for Allergy and Clinical Immunology states that efficacy has been demonstrated with both subcutaneous and sublingual immunotherapy.

Summary
Examinations can cause a great deal of stress in students and hay-fever symptoms have been shown to exacerbate this. Forward planning and starting the correct medications in good time can reduce the burden of symptoms associated with hay fever. Health professionals, particularly pharmacy staff, are in a strong position to provide information to those individuals for whom it may be relevant.

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References