

It's that time of year again

Seasonal allergic rhinitis

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Seasonal allergic rhinitis is a common condition affecting up to one in five Australians and more than half of these will have moderate-to-severe symptoms. Good management is crucial to improve quality of life.

Seasonal allergic rhinitis or hay fever is a common disorder affecting up to one in five Australians.¹ More than 50% of affected people have moderate-to-severe symptoms and treatment is frequently suboptimal. In Australia, rhinitis is predominantly treated by GPs, although many patients will self-medicate and this often results in suboptimal treatment.^{2,3}

Seasonal allergic rhinitis occurs in response to seasonal allergens such as pollens from grasses, weeds, trees or moulds (e.g. *Alternaria*). Although house dust mite is a very common trigger it usually causes perennial symptoms, as can certain moulds such as *Aspergillus*. The epidemic of thunderstorm asthma that occurred in Melbourne in 2016, in which 10 people died, has emphasised the role of grass pollen allergen as a trigger for asthma and rhinitis. The combined circumstance of pollen, rain (releasing small respirable starch pollen granules) and a wind updraft results in an intense lower airway allergen exposure which can trigger asthma.

Although common in children, seasonal allergic rhinitis usually presents later in the atopic march especially in the third decade,⁴ but may be associated with other diseases such as asthma, eczema and food allergies. This results in a patient with a complex chronic disease burden.

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Key points

- **Seasonal allergic rhinitis is a common disease affecting up to 20% of people in Australia.**
- **Most people who experience seasonal allergic rhinitis have moderate-to-severe disease, including symptoms that affect their quality of life.**
- **Most patients seek medical advice through their pharmacy or GP.**
- **Many patients self-medicate and treatment is suboptimal.**
- **In the community, many misconceptions remain about the use of intranasal corticosteroid medications.**

This article will focus on the current advice regarding diagnosis and treatment of seasonal allergic rhinitis.

Diagnosis of seasonal allergic rhinitis

Most types of allergic rhinitis including seasonal allergic rhinitis are diagnosed and treated by the GP, with only 8% of patients being referred to a specialist.⁵ Seasonal allergic rhinitis is diagnosed by a combination of typical symptoms and evidence of type 1 hypersensitivity including positive skin tests and/or serum-specific IgE antibodies.

Symptoms of rhinitis often fall into two main groups:

- predominately nasal obstruction
- predominately sneezing, runny nose and/or itchy nose.

The eyes are also frequently involved (i.e. allergic rhinoconjunctivitis), with symptoms of itching and watering.

Classification of rhinitis

Mild rhinitis

- Normal sleep
- No impairment of daily activities, sport and leisure
- No problems at work or school
- No troublesome symptoms

Moderate-to-severe rhinitis

- Abnormal sleep
- Impairment of daily activities, sport and leisure
- Problems at work or school
- Troublesome symptoms

Intermittent symptoms

- Less than four days a week
- Less than four weeks a year

Persistent symptoms

- More than four days a week
- More than four weeks a year

Patients' quality of life is affected in moderate-to-severe cases of allergic rhinitis and it can affect sleep and impair daily activities including school, work and driving (Box).⁶ Most cases of allergic rhinitis are moderate to severe.⁷

Physical examination should include examination of the upper and lower airway. This is particularly important as asthma and allergic rhinitis frequently coexist, with more than 90% of people with asthma also having rhinitis and 60% of people with rhinitis also having asthma.

Allergy testing includes skin prick testing and/or serum-specific IgE testing. In Australia, people with allergic rhinitis should be tested for both temperate (e.g. rye, orchard, Timothy) and subtropical (e.g. Bermuda, Bahia) grasses. Testing for weeds and trees may depend on the local environment. Most patients are polysensitised, that is sensitised to multiple allergen sources (Figure).⁸

The timing of the pollen season can vary widely across Australia, stretching from September to May. It tends to be later in more northerly regions such as the Northern Territory.⁹

Treatment of seasonal allergic rhinitis

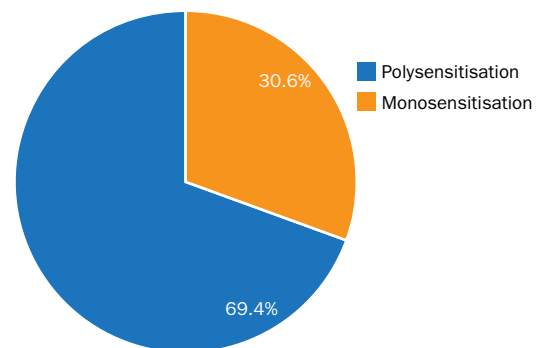
Many patients self-medicate with over-the-counter pharmacy medications but only 85% make an appropriate choice.^{2,3} Assessment and treatment can be enhanced with the use of a smartphone allergy diary (www.allergydiary.com/allergy-diary-app).¹⁰

A treatment approach according to age group and disease severity is provided in the Flowchart.

Therapies for ocular symptoms

Allergic rhinoconjunctivitis occurs in 80% of patients with allergic rhinitis and sometimes the ocular symptoms are the most distressing.¹¹ Treatment can include topical saline, an antihistamine (such

Polysensitisation versus monosensitisation



Grass pollen sensitisation in NSW

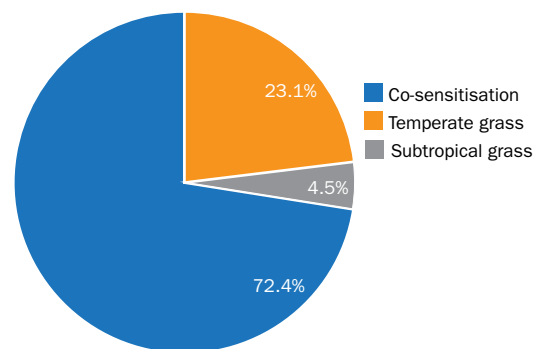


Figure. Patterns of allergen sensitisation in NSW.⁸

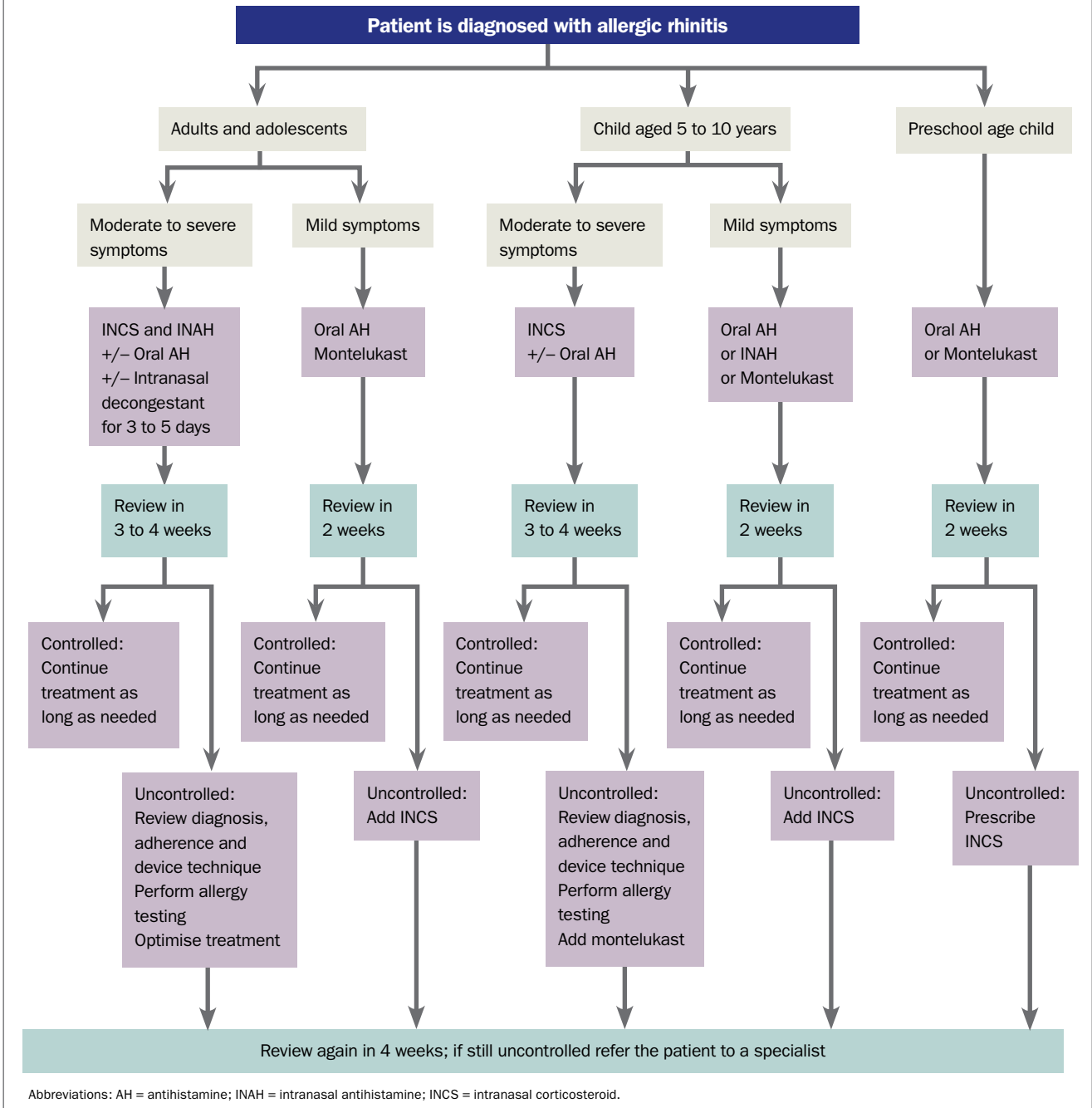
as azelastine, ketotifen, levocabastine or olopatadine) or a mast cell stabiliser (such as sodium cromoglycate or lodoxamide). Topical alpha-agonist vasoconstrictors should be avoided because they can cause conjunctivitis medicamentosa.

Intranasal corticosteroids

There are several preparations of intranasal corticosteroids available in Australia and they have similar levels of efficacy. The price can be as low as \$10 per month. In children, some intranasal corticosteroids can be used from 2 years of age. If the spray is to be used only in the spring season, it is recommended that treatment starts about two weeks before the start of the pollen season to prevent the priming effect – that is, when on first pollen exposure the nose becomes hypersensitive to further allergen exposure.

The main side effects of intranasal corticosteroids are nasal bleeding, which occurs in 10 to 15% of users.¹² The main issues with the use of intranasal corticosteroids are the technique required for administration, which needs to be checked, and patient adherence. It seems to be a commonly held belief that INCS can only be used for a short period of time which is not true. There is also widespread concern about the use of corticosteroids or corticosteroid phobia, which may need to be addressed with the patient.

Treatment algorithm for allergic rhinitis by age and severity



Antihistamines

Oral antihistamines are effective in treating mild seasonal allergic rhinitis but less effective than intranasal corticosteroids in moderate-to-severe seasonal allergic rhinitis.^{1,13,14} In children non-sedating antihistamines only should be used from the age of 12 months. The combination of an intranasal corticosteroid and intranasal antihistamine (e.g. fluticasone propionate and azelastine) provides quick

symptom relief as well as preventer therapy and is recommended in more severe disease.

Allergen immunotherapy

Specific allergen immunotherapy is appropriate when there is clinically important sensitisation to a particular allergen that cannot be avoided or symptoms are poorly controlled despite optimal

medical therapy. In addition, some patients prefer this type of treatment, which is seen as 'more natural' and may have long-term benefits as described below. As most patients are polysensitised it is important to consider which allergen/s to use for any course of immunotherapy and involving an allergy specialist in this decision is recommended.

Immunotherapy is now available as subcutaneous immunotherapy (SCIT; injections) and sublingual immunotherapy (SLIT; drops and tablets). The choice of SLIT versus SCIT depends on a number of factors including ability to tolerate injections (SLIT is more acceptable in children), convenience and cost. It should be noted that the tablet formulations for grass allergens only cover temperate grass pollen and so may be best suited to more southern regions of Australia. It is also important to make sure that coexistent asthma is stable and a forced expiratory volume in one second (FEV₁) of more than 70% and 80% predicted is required for SLIT and SCIT, respectively.

An Australian trial has shown that a five-grass pollen allergy sublingual tablet is protective for thunderstorm asthma.¹⁵ Recent data also suggest that pre/coseasonal SLIT is as effective as continuous treatment.¹⁶ The lasting benefit of pollen SLIT was recently reconfirmed using real-life data from Germany involving almost 3000 patients who showed improvement in rhinitis for at least two years after treatment cessation and a reduced risk of developing asthma (hazard ratio, 0.523).¹³

Other treatments

Avoidance of allergen and irritant triggers is recommended where feasible. In the specific case of allergic rhinitis, which is a risk factor for thunderstorm asthma, patients are recommended to follow the pollen forecast (www.pollenforecast.com.au) and to move indoors before and during thunderstorms. Thunderstorm asthma epidemics have been reported in October and November in Victoria, ACT and NSW. In patients with seasonal allergic rhinitis and no previous history of asthma, the thunderstorm pollen may trigger the acute onset of asthma symptoms. In this circumstance the use of an intranasal corticosteroid spray in spring and early summer is recommended.

Saline rinses or nasal irrigation can be effective in improving nasal symptoms and can be used in addition to usual treatment. Isotonic saline is recommended.¹⁷

There can be a role for surgery in children unresponsive to therapy who may have adenoidal hypertrophy. In older children and adults with persistent nasal obstruction unresponsive to medical treatment, surgical turbinate reduction may be very useful.

Conclusion

Seasonal allergic rhinitis and allergic rhinoconjunctivitis are common diseases that frequently present to the GP. Good management is essential to reduce symptoms and improve quality of life in affected patients.

RMT

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COMPETING INTERESTS: Associate Professor Rimmer has competing interests with AstraZeneca, Novartis, Seqirus, Ferrer Pharma, Stallergenes, Boehringer Ingelheim and GlaxoSmithKline.