

# First-line treatment of hay fever: What is the best option?

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## Résumé

LE CHOIX D'UN TRAITEMENT DE PREMIÈRE LIGNE contre la rhinite allergique saisonnière, ou fièvre des foins, peut rendre perplexe face au vaste éventail de moyens de traitement disponibles qui ont à peu près la même efficacité et qui sont très annoncés dans le public. Même si la fièvre des foins ne met pas la vie en danger, elle est une cause d'ennuis et d'inconfort considérables pour environ 15 % des Nord-Américains à un moment quelconque, le plus souvent au cours de l'enfance ou au début de l'âge adulte. On semble s'entendre de plus en plus pour reconnaître qu'une des pharmacothérapies les plus efficaces consiste à utiliser régulièrement des corticostéroïdes par voie intranasale et des antihistaminiques oraux au besoin. Néanmoins, comme les réactions des patients aux remèdes contre la fièvre des foins varient énormément, un traitement personnalisé s'impose.

**H**ay fever — seasonal allergic rhinitis — provoked by ragweed pollen is an annoying condition that affects many Canadians, particularly in regions east of Winnipeg. For most sufferers the most troublesome symptom is persistent nasal obstruction; this is often accompanied by conjunctivitis, sneezing and pruritus of the soft palate and middle ear. The overall prevalence of seasonal allergic rhinitis in North America has been estimated as ranging from 2% to 20%, depending on location. For example, people allergic to ragweed pollen will have severe symptoms in regions where the ragweed pollen count is high, but may be relatively asymptomatic in locations where ragweed is less common.<sup>1</sup>

Ragweed pollen hay fever is distributed almost evenly between men and women and appears mainly to affect people under the age of 50. Approximately one-third of people suffering from any type of allergic rhinitis are children.<sup>2</sup> In addition to causing discomfort, ragweed pollen hay fever has a considerable economic cost in terms of prescribed medicines, ambulatory care, lost productivity and school absenteeism.<sup>3</sup> Relatively few people with ragweed allergy seek medical advice; of the remainder many use nonprescription medications, many of which contain 2 or more active ingredients.

In this issue (page 1123) Elizabeth F. Juniper and colleagues provide guidance on recommending inhaled corticosteroids, nonsedating antihistamines or both for patients with this annoying condition. Their study emphasizes the quality of life of the hay fever sufferer, rather than the effectiveness of treatment — a reasonable approach given the nonserious nature of hay fever. They conclude that beginning treatment with the daily application of a nasal corticosteroid (fluticasone), supplemented by an antihistamine (terfenadine) as needed, results in a slightly better quality of life than the reverse (i.e., beginning with terfenadine and using fluticasone to supplement therapy as needed). Juniper and colleagues do not conduct a cost-benefit analysis of these 2 regimes except by comparing 1 regime with the other. It is more than likely that cheaper preparations than fluticasone and safer preparations than terfenadine will produce similar results. For example, it has been shown that daily dosing with fluticasone is as effective as twice-daily dosing and is considerably more convenient for those patients (especially children) who dislike using nasal sprays or have difficulty using them correctly. More important is the finding that beclomethasone nasal spray used twice daily is therapeutically equivalent to fluticasone once a day.<sup>4</sup> Since some brands of



## Editorial

## Éditorial

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beclomethasone are considerably less expensive than fluticasone it may be preferable to use the former.

It is perhaps unfortunate that Juniper and colleagues selected terfenadine for their study: the cardiac side effects of this drug have been known for several years.<sup>5</sup> Terfenadine and astemizole, may, very rarely, produce small increases in the QT interval when used at the recommended dose. Overdose, hepatic impairment and the concurrent ingestion of drugs or foods that inhibit the metabolism of these antihistamines can result in torsades de pointes and ventricular fibrillation. Commonly used drugs that inhibit the metabolism of terfenadine and astemizole enough to cause arrhythmias include ketoconazole, erythromycin, clarithromycin and troleandomycin. Loratadine does not increase the QT interval or have cardiotoxic effects. Adults who ingest more than the therapeutic dose of terfenadine should ideally be monitored closely for 24 hours because of the risk of cardiac arrhythmias. (Terfenadine is not recommended for children because their risk of excessive blood levels is even greater.) The elongation of the QT interval is less pronounced when astemizole is used. Juniper and colleagues did, however, attempt to minimize the likelihood of excessive blood levels of terfenadine by prescribing 60-mg tablets rather than longer acting 120-mg tablets, which are more likely to produce this effect if dosage instructions are not followed precisely.

Perhaps the use of terfenadine in the present study was related to the fact that until recently the oral medications most frequently used in North America to relieve hay fever were nonprescription products containing 2 or more active ingredients and terfenadine. Fexofenadine, the active metabolite of terfenadine, is not cardiotoxic and is now approved for sale in the US; accordingly, in January 1997 the US Food and Drug Administration moved to withdraw approval for terfenadine.<sup>6</sup> Fexofenadine is a nonsedating H<sub>1</sub>-receptor blocker that appears to be effective in the treatment of seasonal allergic rhinitis,<sup>6</sup> but the results of large-scale clinical trials have not yet been published.

In Canada, terfenadine is available without a prescription but must be requested from the pharmacist, who is required to provide instructions regarding dosage and to ask about the concurrent use of medications that might inhibit its metabolism. Anecdotal information<sup>7</sup> and mass media surveys<sup>8</sup> indicate that compliance with these requirements is uneven and unpredictable.

The group of patients studied by Juniper and colleagues appears to have been a highly selected subpopulation living in an area with a high ragweed pollen count. The experience of most allergists in eastern Canada is that many patients with ragweed allergy take prescription or nonprescription medication as needed throughout the

year for perennial rhinitis. The fact that the study group did not require treatment for perennial rhinitis would place them in a slightly atypical subset of people with ragweed allergy. In an attempt to eliminate certain confounding factors the authors may have inadvertently selected an unusual group of patients. In addition, it is unclear whether the concomitant use of inhaled corticosteroids for asthma had a synergistic effect on nasal fluticasone therapy in some patients. The authors have wisely not alluded to the role of immunotherapy in the treatment of hay fever, since earlier research has shown that for most patients topical corticosteroids are more efficacious and have fewer adverse effects than allergen immunotherapy.<sup>9</sup> A trial of immunotherapy is now reserved almost exclusively for patients with hay fever who do not respond to conventional drug therapy.

Despite these limitations, Juniper and colleagues provide useful suggestions for treating this common disorder in a manner acceptable to patients. Perhaps more emphasis should have been placed on the relief of persistent or painful nasal obstruction, since this is usually the most troublesome complaint that affects quality of life, particularly with respect to loss of sleep and inability to concentrate at work or school.

Taking all factors into consideration, the simplest and most effective initial treatment for hay fever appears to be fluticasone once daily or beclomethasone twice daily supplemented, when symptoms are severe, by chlorpheniramine (4 mg every 6 hours) as needed or loratadine (10 mg once daily). The choice of fluticasone versus beclomethasone or chlorpheniramine versus loratadine depends to a certain extent on financial considerations: fluticasone and loratadine are significantly more expensive than beclomethasone and chlorpheniramine. There is often a high degree of noncompliance with fluticasone therapy because of its high cost. Children and young adults, who account for about 75% of hay fever patients, generally tolerate supplementary chlorpheniramine well; the side-effects of drowsiness and mood change are much more common in patients over age 50.

As Juniper and colleagues imply, the primary objective in treating seasonal allergic rhinitis is to provide a simple treatment without side effects and at a reasonable cost. The treatment must also be acceptable to the patient in terms of providing the best possible quality of life during the pollen season. We are indebted to Juniper and colleagues for distinguishing between therapeutic efficacy and quality of life and for documenting the combined use of topical corticosteroids and oral antihistamines in about 50% of patients. However, because of the relatively small differences in quality of life attained by the 2 approaches to first-line therapy, the choice between intranasal corticosteroids or antihistamines to initiate treatment depends



in the last analysis on the physician's careful assessment of the patient's needs and response to therapy.

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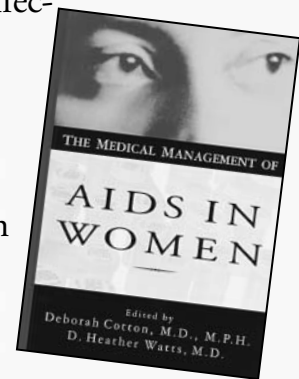
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