Systemic absorption, identifiable by effects on growth, is mainly a concern where corticosteroids are used at other sites, for example when they are inhaled for asthma or used topically in atopic dermatitis.

The once-daily use of fluticasone or mometasone should not be problematic and may reduce the dose of inhaled corticosteroid needed. Monitoring growth by stadiometry and plotting it on growth charts is sensible in all children taking corticosteroids, since growth is a highly sensitive measure of systemic effects.

Local side-effects – dryness, stinging, burning, epistaxis – and headache occur in 5–10% of patients receiving INS, regardless of the drug used.

Nasal mucosal atrophy was once considered a risk, but long-term studies with mometasone and fluticasone have shown no evidence of atrophy or metaplasia after 12 months’ use (Minshall et al, 1998).

Antihistamines

Antihistamines are effective in treating sneezing, rhinorrhoea and watery eyes but have little effect on nasal blockage. They are useful alone or as an addition to INS in patients insufficiently responsive to INS alone.

Unfortunately, first-generation antihistamines are the most frequently prescribed type for AR even though the associated sedation may make it difficult for children to concentrate and stay alert in school, and reduces exam performance (Vuurman et al, 1993).

Cardiotoxicity (such as QT prolongation) and anticholinergic adverse events may occur. These drugs have not been rigorously tested in children.

Second-generation antihistamines are less likely to cause sedation, anticholinergic effects and cardiotoxicity.

Intranasal antihistamines are well tolerated, and rates of withdrawal from treatment because of adverse events are low. Compared with first-generation ones, they have a lower incidence of sedation, as well as no evidence of QT prolongation.

However, some patients notice a bad taste, the spray cannot be administered if the nose is severely blocked and local nasal treatment does not affect conjunctivitis.

Decongestants are not generally recommended because there is a narrow margin between therapeutic and toxic doses for oral preparations and a risk of rhinitis medicamentosa (rebound nasal congestion) for intranasal ones.

Cardiovascular and central nervous system stimulatory effects limit the usefulness of oral decongestants.

United treatments

There are a few medications which treat not only rhinitis but also associated asthma. These include antileukotrienes, anti-IgE therapy and immunotherapy.

Antileukotrienes are moderately effective against nasal symptoms. They also have anti-asthmatic properties with good effects on exercise-induced symptoms. Small airways inflammation, which responds poorly to inhaled corticosteroids, is reduced by antileukotrienes. They also reduce symptoms of the common cold, which is a frequent asthma-exacerbating factor.

These facts plus good safety data warrant a trial of therapy for a few weeks in seasonal rhinitis with asthma (Philip et al, 2004). The major drawback is cost of around £1 per day which is higher than that of a corticosteroid or OTC antihistamine.

Immunotherapy is the only disease-modifying treatment (Moller et al, 2002) and can reduce the progression of AR to asthma. It may be warranted for severe AR in children if allergen(s) can be accurately identified and exposure to allergen is significant, chronic and unavoidable.

Subcutaneous (injection) immunotherapy must be administered by professionals experienced in the procedure and in settings with the ability to respond to anaphylaxis.

Sublingual immunotherapy may be appropriate for patients who do not want regular injections; initial adverse events of oral itching/burning and gastrointestinal symptoms are manageable (Pham-Thi et al, 2004).