THE IMPACT OF ALLERGY TRAINING IN PRIMARY CARE NURSING

This is a summary: the full paper can be accessed at nursingtimes.net

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This article reports on a randomised controlled trial of the effectiveness of an education package in the primary care management of rhinitis. The study demonstrated that standardised allergy training was evaluated positively by healthcare professionals and resulted in significant improvements in health-related quality of life for patients with perennial rhinitis.

Allergic diseases, including hayfever (seasonal allergic rhinitis), food allergy, drug allergy and allergic asthma affect approximately 20% of the UK population (RCP, 2003). Respiratory allergies are simple and inexpensive to treat with pharmacotherapy, although basic training in disease management is needed in order to deliver the best care for patients. Nurses with an interest and training in rhinitis and allergy have an important role to play in the management of these patients, who often have coexisting asthma and rhinitis.

The term rhinitis is used to cover a collection of symptoms. These include:

- A runny and/or blocked nose;
- Sneezing;
- Itching;
- Sometimes postnasal drip (mucus running down the back of the throat);
- Conjunctivitis.

These symptoms can result in significant morbidity. Research shows they may hinder concentration, reduce productivity and impair learning ability in children and adolescents (Vuurman et al, 1993). An investigation of quality of life in adults with rhinitis revealed that they experienced impairment of quality of life through systemic symptoms, sleep disturbance, limitations on activity and emotional problems (Juniper and Guyatt, 1991).

The cost implications associated with rhinitis are significant. A US study showed that allergic rhinitis resulted annually in about 811,000 missed work days, 824,000 missed school days and 4,230,000 reduced activity days when participants felt less able to carry out normal activities (Malone et al, 1997).

The Royal College of Physicians (RCP, 2003) has recommended frontline allergy management should be in primary care, under clinical leadership from specialist centres. It also recommended improved access to postgraduate training as being key to improving the management of these patients in primary care. Most symptoms can be managed in primary care. Management consists of pharmacotherapy including antihistamines and nasal corticosteroids (which are extremely effective if taken regularly and as prophylaxis), with avoidance of allergen triggers where possible.

There is little published evidence that training healthcare professionals improves patient outcomes. We carried out a study to compare the effectiveness of standardised allergy training for primary healthcare professionals with usual care in promoting improvements in disease-specific quality of life in adults with perennial rhinitis.

STUDY METHOD

We conducted a multi-centre community-based parallel group randomised trial that compared an educational intervention with usual care (Sheik et al, 2007). Twelve general practices were recruited from the West Midlands. Each nominated two people to receive the allergy training – a GP and a practice nurse who had not previously received postgraduate allergy training.

Training (the intervention) consisted of an 11-module course covering all aspects of allergic disease. This was delivered free of charge by an allergy trainer from the charity Education for Health over six months using distance learning and three days of face-to-face instruction. The allergy module is a standardised module carrying 30 points at degree level (level 3), accredited by the Open University. Health professionals participated in a practical session on the use of nasal sprays and were given instructions for nasal spray use, which they were encouraged to give to patients to accompany prescriptions for topical nasal preparations.

All adults (aged 18 and over) with perennial rhinitis on the lists of participating health professionals were eligible to take part. Patients were randomised to the intervention group (care from a trained allergy health professional) or the control group (routine care and a leaflet on rhinitis management).

IMPLICATIONS FOR PRACTICE

- Allergic diseases, including hayfever (seasonal allergic rhinitis), food allergy, drug allergy and allergic asthma affect approximately 20% of the UK population (RCP, 2003).
- Most allergy management should take place in primary care under clinical leadership from specialist centres (RCP, 2003).
- Better access to training is essential to improving allergy management in primary care.
- Standardised allergy training for health professionals improves disease-specific quality of life and global assessment of nasal symptoms among patients with perennial rhinitis in primary care.
- Training improves health professionals’ confidence in managing allergic conditions.
- The study highlights the importance of continued investment in professional education.

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OUTCOMES
The primary outcome measure was the change from baseline (before health professionals received allergy training) in the validated Rhino-conjunctivitis Quality of Life Questionnaire (RQLQ) score between the two groups of patients 13 months after randomisation (six months after completing the intervention).

Effects on professional competence and confidence were measured (on completion of the training intervention and six months later) with an audit questionnaire using a Likert scale where a score of 1 = less confident and 5 = more confident. An overall evaluation of satisfaction with the allergy training module, including evaluation of content, administration and relevance to clinical practice, was completed by the health professionals at the end of the six-month training period.

STUDY PARTICIPANTS
Twenty health professionals from 12 general practices participated in the study and received the intervention. Of 350 patients assessed for eligibility, 290 satisfied our inclusion criteria. Of these, 202 agreed to participate. All 202 patients (43% male; mean age 57 years) were included in the intention to treat (ITT) analysis. The per-protocol analysis (patients who complied with their group allocation) was confined to the 157 patients who received the intervention as intended. Participants were comparable at baseline in terms of age and sex profile.

Findings
In the ITT analysis improvements in RQLQ from baseline were observed in the intervention group but not in the control group (p=0.08). In the per-protocol analysis, RQLQ scores improved significantly in the intervention group but not in the control group (intervention vs control p=0.05).

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**DISCUSSION**
This study has shown that a standardised allergy training intervention for health professionals led to improvements in disease-specific quality of life and in global assessment of nasal symptoms among patients with perennial rhinitis when compared with usual care. The training programme resulted in improvements in health professionals’ perceived confidence in managing allergic conditions. It is difficult to attribute the improvements in quality of life to a specific part of the training intervention, although training in the diagnosis and practical management of rhinitis accounted for a substantial part of it.

The audit of practitioner confidence and competence demonstrated clear improvements in self-reported confidence, particularly in teaching patients how to use nasal spray devices, and advising them about regular nasal steroid use.

The control group in this study continued with ‘usual care’, which consisted of a leaflet about the prevalence and treatment of rhinitis and access to a nurse/doctor who had not received allergy training. The leaflet gave detailed advice on drug treatment and allergen/trigger avoidance in the form of a basic self-management plan.

Despite being part of a clinical trial, and having received written instructions on symptom management, patients in the control group showed no improvement in quality of life. This suggests that written instructions alone have little clinical impact, and that access to trained healthcare professionals as well as appropriate advice is necessary. This is in line with other studies showing the limited effects of self-management plans alone without education.

REFERENCES


CONCLUSION
In this study, standardised allergy training was evaluated positively by healthcare professionals and resulted in improvements in health-related quality of life in patients with perennial rhinitis. These findings highlight the importance of professional education.

In a climate of financial instability and a culture of evidence-based practice it is important to show that investment clearly benefits patients as well as health professionals. Allergy-trained practice nurses have the potential to make a substantial difference to the lives of patients with rhinitis, and should expect great job satisfaction from doing so.

This article is part of the NT allergy series launched this week on nursingtimes.net.