

Inadequate health insurance coverage: A major factor in premature discontinuation of subcutaneous immunotherapy for allergic rhinitis

Ravi Vaswani, BS; Yi-Chun Carol Liu, MD; Leena Parikh, MD; Surender Vaswani, MD

Abstract

We conducted a study of 155 patients with allergic rhinitis who prematurely discontinued subcutaneous allergen immunotherapy to determine the reasons for their discontinuation. The most commonly cited factor, which was cited by 62 patients (40.0%), was the issue of cost—specifically, inadequate or nonexistent insurance coverage. Studies have shown that subcutaneous allergen immunotherapy is more cost-effective than pharmacologic treatment for patients with allergic rhinitis. Therefore, improved insurance coverage for this treatment of proven efficacy would not only improve quality of life, it would also be economically beneficial to the health care system in general.

Introduction

Allergen immunotherapy is an established treatment modality for allergic rhinitis. Despite its proven efficacy, however, many patients do not complete the recommended 3- to 5-year course of immunotherapy. This study was undertaken to identify the factors that lead to premature cessation of immunotherapy.

Patients and methods

Patient selection. We identified a group of patients who had been prescribed specific subcutaneous immunotherapy for allergic rhinitis. All consecutive patients who had prematurely discontinued immunotherapy

starting in January 2008 were selected from this group. These patients had stopped taking their medication prior to the completion of the recommended 5-year regimen. We examined these patients' charts and collected information on demographics and the duration of their treatment prior to cessation. These patients were then contacted either by telephone or by mail so that we might identify the reason they discontinued their allergy injections.

Immunotherapy protocol. After meeting appropriate criteria, the patients with allergic rhinitis had been started on a specific subcutaneous immunotherapy program per published guidelines.¹⁻³ This program consisted of a maintenance vial and four 10-fold dilution vials for the initial buildup or escalation phase. Commonly, patients received two allergen injections, each containing a mixture of antigens. During the buildup phase, injections were administered every 3 to 7 days for approximately 5 months.

During the subsequent maintenance phase, injections were delivered at 2-week intervals. During the fourth and fifth years, injections were given every 3 to 4 weeks. Patients were required to stay in the office for 25 to 30 minutes after receiving each injection.¹

Results

A total of 155 patients—71 men (45.8%), mean age 36 years, and 84 women (54.2%), mean age 30 years—had discontinued subcutaneous immunotherapy prematurely. Of these, 68 patients (43.9%) had been in the escalation phase and 87 (56.1%) had been on their maintenance dose.

Among the entire group, 62 patients (40.0%) had discontinued immunotherapy prematurely for cost reasons—that is, they either did not have medical in-

From the Allergy and Asthma Clinical Center, Columbia, Md. (Mr. R. Vaswani and Dr. Parikh); the Department of Otolaryngology–Head and Neck Surgery, Case Western University, Cleveland, Ohio (Dr. Liu); and Howard County General Hospital/Johns Hopkins Medicine, Columbia, Md. (Dr. S. Vaswani).

Corresponding author: Surender Vaswani, MD, Allergy & Asthma Clinical Center, 8860 Columbia 100 Pkwy., Suite 210, Columbia, MD 21045.
E-mail: Drvaswani5@gmail.com

surance or the insurance they did have was inadequate (figure). Among the other reasons that led to early dropout, 21 patients (13.5%) cited inconvenience, 13 (8.4%) had concurrent health problems, 10 (6.5%) felt that immunotherapy was not effective, and 10 others stopped because of a change of residence. One patient (0.6%) dropped out to try alternative medicine. The remaining 38 patients (24.5%) did not provide any reason for prematurely withdrawing. Of these 38 patients, only 3 had complete insurance coverage for the allergen extract and allergy injections.

Of the 62 patients who dropped out prematurely because of insurance and cost reasons, 33 (53.2%) said they stopped because they were required to provide a copayment at each visit to receive their allergy injection (table). Among the rest, 10 (16.1%) said they were required to provide a copayment in addition to meeting a high deductible, 10 others cited a high deductible, 6 (9.7%) had either lost their health insurance or had never had any, and 3 (4.8%) said that the overall cost was generally unaffordable.

Discussion

For several decades, subcutaneous allergen immunotherapy has been the mainstay treatment for allergic rhinitis. Its efficacy has been demonstrated in numerous well-designed, randomized, placebo-controlled studies.^{4,5} Premature cessation of immunotherapy has been described, and it remains a concern.^{6,8} However, until now, cost as a factor for early discontinuation of immunotherapy has not been addressed.

As is the case with any disease management, the cost-effectiveness of treatment is a primary concern, especially in recent times when healthcare dollars have come under scrutiny by the government and health insurance companies. Schädlich and Brecht examined this issue over a period of 10 years and determined that subcutaneous immunotherapy is economically advantageous when compared with symptomatic treatment.⁹ Bernstein

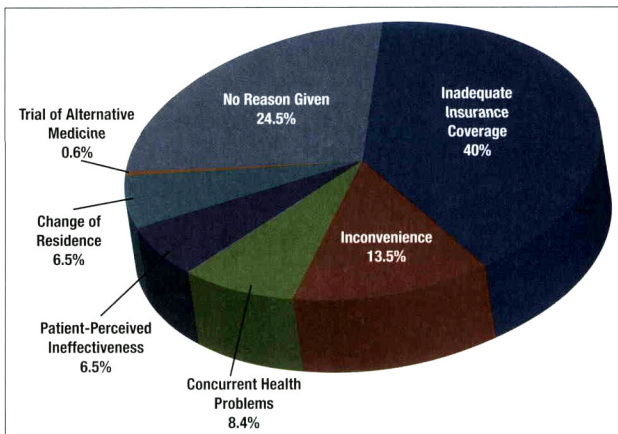


Figure. Chart shows the reasons given for the premature discontinuation of immunotherapy.

also concluded that the cost of pharmacotherapy over a 5-year period is greater than that of subcutaneous immunotherapy.¹⁰ An analysis of the pharmacoeconomics of subcutaneous allergen immunotherapy by Incorvaia et al showed that it is significantly more cost-effective than symptomatic treatment.¹¹ In a recent study by Hankin et al, significant total healthcare cost savings were noted in children treated with subcutaneous allergen immunotherapy.¹²

As demonstrated in our study, patient compliance declines when patients must assume a large or burdensome share of the cost of treatment, if not the entire cost. A full 40% of the patients in our study discontinued their immunotherapy prematurely because their insurance coverage was inadequate or nonexistent. If health insurers would cover the cost of subcutaneous immunotherapy fully, utilization of this treatment option would clearly increase. This would not only improve quality of life, it

Table. Insurance- and cost-related reasons for premature discontinuation of immunotherapy (n = 62)

Reason	n (%)
Copayment required for each visit	33 (53.2)
Copayment and high deductible	10 (16.1)
High deductible	10 (16.1)
Lack of insurance	6 (9.7)
Therapy generally unaffordable	3 (4.8)

would lessen both the direct and indirect costs related to allergic rhinitis, which would ultimately prove to be economically beneficial to the entire healthcare system.

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Division of Continuing Education
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