

ORIGINAL RESEARCH

Allergy Practice in the Academic Otolaryngology Setting: Results of a Comprehensive Survey

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OBJECTIVE: To survey academic otolaryngology centers and obtain information regarding their practice of otolaryngic allergy.

STUDY DESIGN: A 12-item multiple-choice survey was sent to all academic otolaryngology department chairmen and program directors, as well as all academic liaisons known to the American Academy of Otolaryngic Allergy.

RESULTS: Representatives of 71 of 102 (69.6%) accredited otolaryngology programs responded; 52 of 84 respondents reported an active otolaryngic allergy practice at their institution. The testing method most widely employed by those surveyed is intradermal dilutional testing (IDT). The majority of respondents (74.5%) felt that the addition of allergy increased referrals to their department, and a similar majority (72%) were operating at a profit. The most common reasons cited for adding allergy services were to meet educational and residency requirements.

CONCLUSIONS: The majority of academic otolaryngology programs in the United States currently offer otolaryngic allergy services. The primary reason cited for adding these services is for educational purposes, but there appear to be potential financial benefits as well.

EBM rating: C-4

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Allergy has long been an integral part of otolaryngology. Since the early 1900's, otolaryngologists have recognized the importance of allergy as a contributing factor to upper-airway disease. Early pioneers in otolaryngic allergy, such as Dr. French Hansel, began to educate others in the principles of allergy diagnosis and treatment as early as the 1930's. However, the quality and quantity of otolaryngic allergy education in otolaryngology training programs has varied over time and by institution. Within the past decade,

added emphasis has been placed on assuring that all training programs provide adequate education in otolaryngic allergy, including hands-on training in allergy testing and treatment. This movement has led to many training programs starting new allergy clinics, or at least to consider adding these services. Academic institutions may face a number of challenges as they move toward adding allergy services and incorporating the teaching of otolaryngic allergy into their curriculum. In the fall of 2004 a survey was undertaken in order to gain information about the state of currently existing academic otolaryngic allergy practices, as well as determining the unique challenges faced by academic institutions, and evaluating the economic implications of adding allergy services.

MATERIALS AND METHODS

In October 2004, a 12-item multiple-choice questionnaire ([Appendix 1](#)) was sent to all 102 accredited otolaryngology training programs in the United States. The documents also provided the opportunity for write-in information. The surveys were sent via e-mail and fax to each program chairperson, each program director, and all academic liaisons known to the American Academy of Otolaryngic Allergy in order to optimize participation. Programs that did not initially respond were sent reminder notices.

Of 102 accredited programs, 71 programs responded (69.6%). Four programs returned responses from more than one individual. Five surveys contained no identifying information. There were a total of 84 respondents from 71

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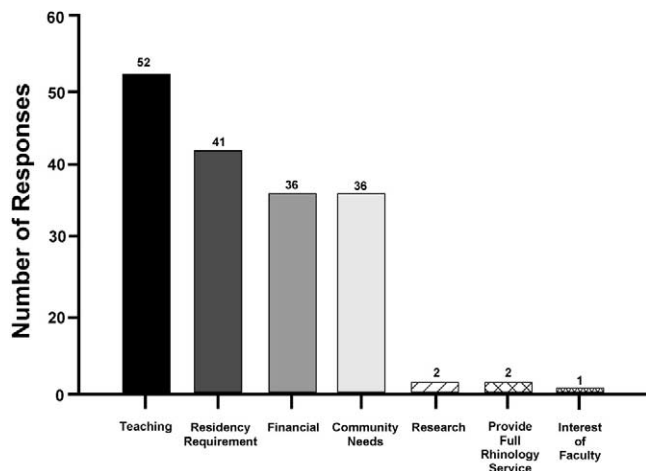


Figure 1 Reasons cited for adding allergy services.

programs. All responses were included when tallying survey results.

RESULTS

A total of 61.9% of respondents reported an active otolaryngic allergy practice at their institution. The average number of physicians in these departments was 9 (range, 1-25). On average, 2.25 physicians in each department included allergy as part of their practice. The remaining 38.1% of respondents did not have an active allergy practice in their department. However, it is noteworthy that of these programs, 75% were interested in starting an allergy practice.

So far as testing methods and treatment, the most common primary testing method (43.4%) was intradermal dilutional testing (IDT), a quantitative skin test methodology formerly known as skin endpoint titration (SET). A total of 11.7% used single-dilution intradermal testing as their primary testing method, 13.4% employed prick testing, and 28.7% used in vitro testing. The average number of patients currently on immunotherapy in each practice was 242 (range, 2-2500).

The survey also addressed the economic implications of adding allergy services to an academic otolaryngology department. A total of 72% of existing allergy practices were operating at a profit; 28% were operating at a loss, but no comments were given by responders as to the reason for operating losses. The majority of respondents (74.5%) felt the addition of allergy had increased the number of referrals to their department, while 4.3% felt that adding allergy services had decreased referrals. No change in the number of referrals was noted by 21.3%.

When asked why their departments decided to offer allergy services, the most common reasons cited were for teaching (52 responses) and to fulfill residency requirements (41). Others reasons cited, in order of frequency, were

financial reasons (36), to fill a community need (36), research (2), to provide full-service rhinology services (2), and because of the interest of an individual faculty member (1) (Fig 1).

The survey participants were asked about what challenges they faced in starting an allergy practice. The most common items cited were lack of personnel (29) followed in descending order of frequency by lack of space (21), difficulties in finding an otolaryngologist with allergy experience (14), competition from the general allergists (9), insufficient patient volume (6), lack of start-up funds (5), billing issues (1), and difficulty in training faculty (1) (Fig 2).

DISCUSSION

Otolaryngic allergy has been in existence in the United States since the early twentieth century. In the 1930's, Dr. French Hansel practiced otolaryngology at Washington University in St. Louis, and also served as a consultant in the allergy division at that institution. Dr. Hansel recognized the importance of allergy as a contributing factor in the upper-airway disease, particularly in sinus disease. He went on to form a foundation to teach the principles of otolaryngic allergy.

One of Hansel's students was Dr. Herbert Rinkel. Dr. Rinkel, a general allergist, developed a method of skin testing that involved titration using fivefold dilutions of antigen to more exactly determine individual levels of sensitivity to an antigen. Rinkel's work formed the basis for skin endpoint titration, a method that formed the basis for the current methodology, intradermal dilutional testing.

Hansel's original educational foundation grew to become the American Society of Ophthalmologic and Otolaryngic Allergy in 1941. In 1981, this organization changed its name to the American Academy of Otolaryngic Allergy

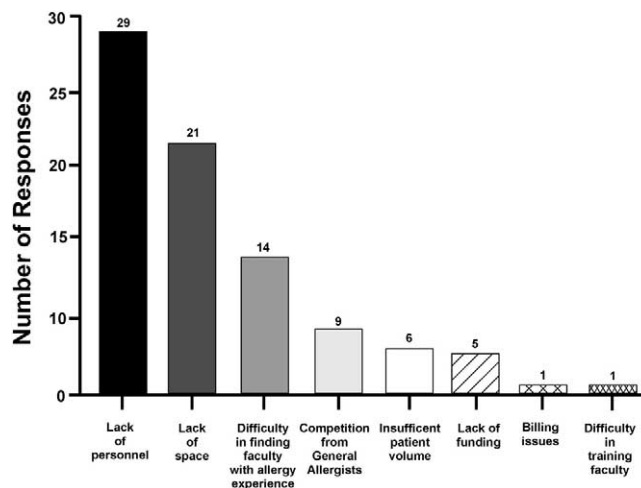


Figure 2 Challenges in starting an allergy practice.

(AAOA). Presently, the AAOA is the second-largest otolaryngic specialty organization, with over 2000 members.

The recognition that allergy may contribute to a great many diseases seen by the otolaryngologist has resulted in significant growth in the field. Recent studies have shown that allergy is commonly seen in patients with rhinosinusitis¹⁻³; in addition, patients with allergic rhinitis are also more likely to develop sinusitis than their nonallergic counterparts.⁴ Nisioka found that patients with allergic rhinitis and sinusitis respond better to sinus surgery if they also undergo immunotherapy.⁵

Recent work has also examined the effect of allergy on the ear. Studies by Altermatt,⁶ Harris,⁷ and Tomiyama⁸ have demonstrated the ability of the endolymphatic sac to process antigens and mount a local antibody response. Derebery has reported that patients with Menière's disease have a higher prevalence of positive allergy testing when compared with controls,⁹ and show an improvement in symptoms of vertigo when treated with immunotherapy.¹⁰

It is postulated that allergy also contributes to eustachian tube dysfunction and the development of otitis media. Children with otitis media were found in one study to have an allergy prevalence of 50%, compared with 17% in the general population.¹¹ Intranasal challenge with pollen in allergic patients has been found to induce eustachian tube dysfunction.¹²

As the importance of allergy in otolaryngology has become more apparent, so has the importance of teaching allergy to those in training. Allergy is a topic recognized in the American Board of Otolaryngology's Scope of Knowledge Study. In a 1985 paper, Osguthorpe discussed allergy training in otolaryngology residency programs.¹³ He found that only 8% of residency programs had offered at least 12 hours of didactic instruction in allergy and five days in an active otolaryngology clinic at that time. Fifty-eight percent of programs in 1985 did not include allergy in their curricula. In marked contrast to the situation two decades ago, our current survey shows that the majority of training programs now have an active otolaryngic allergy practice. The obstacles faced by these programs when trying to establish an otolaryngic allergy practice include lack of trained personnel, clinic space, and otolaryngologists with allergy experience. The majority of programs responded that the addition of allergy both provided an economic benefit to the department and generated referrals. Of those programs without an

active allergy component, 75% expressed an interest in adding allergy services.

CONCLUSION

For many decades, allergy has been a part of the practice of a significant number of otolaryngologists. A growing recognition of allergy as an important aspect of otolaryngology has led to an increasing emphasis by academic otolaryngology programs on establishing an active allergy practice. The majority of academic otolaryngology programs in the United States now offer otolaryngic allergy services within their department.

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Otolaryngic Allergy Practices in Academic Departments

1. Does your otolaryngology department have an allergy practice which offers testing and immunotherapy?
 - ☐ Yes
 - ☐ No
2. If no, is your program interested in starting an otolaryngic allergy practice?
 - ☐ Yes
 - ☐ No
3. If interested in starting an otolaryngic allergy practice, which of the following has prevented you from starting an allergy practice thus far (Mark all that apply):
 - ☐ Lack of trained physicians
 - ☐ Insufficient clinic space
 - ☐ Lack of trained support staff
 - ☐ Lack of start-up funds
 - ☐ Other (please describe) _____
4. How many physicians are in the clinical practice? _____
5. How many department physicians have allergy as a part of their practice? _____
6. Which testing method is used in your department? (give percentages)
 - ☐ Prick testing _____
 - ☐ In vitro testing _____
 - ☐ Intradermal testing (single dilution) _____
 - ☐ Intradermal dilution testing (IDT/SET) _____
7. How many patients currently are on immunotherapy in your practice? _____
8. Is the allergy practice operation at a profit?
 - ☐ Yes
 - ☐ No
9. If profitable, please estimate the time it took from the start of the practice to reach the break-even point:

10. Why was the decision made to add allergy to the practice (mark all that apply)?
 - ☐ Financial
 - ☐ To fill community need
 - ☐ Teaching purposes
 - ☐ To meet RRC requirements
 - ☐ Other (please describe): _____
11. Has the addition of allergy increased or decreased referrals to your department?
 - ☐ Increased referrals
 - ☐ Decreased referrals
12. What were the most difficult things your department faced when trying to start the allergy practice? (Mark all that apply)
 - ☐ Lack of clinic space
 - ☐ Lack of adequate start-up funds
 - ☐ Lack of personnel
 - ☐ Competition from general allergists
 - ☐ Insufficient patient volume
 - ☐ Difficulty finding an otolaryngologist with allergy training
 - ☐ Other (please describe): _____

APPENDIX 1 Twelve-item survey.