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Oral Immunotherapy for Food Allergy: A Survey of Real-World Practice Patterns and Side Effect Management

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INTRODUCTION

- Food allergy is reported in 7.6% of children[1] and at least 10.8% of adults[2] in the United States (US)
- Oral immunotherapy (OIT) for food allergy has been shown to increase reaction thresholds in children and adults[3,4]
- OIT for food allergy is an emerging treatment modality in the US[5]

OBJECTIVE

- To describe current clinical practice management of OIT for food allergy in a sample of US-based allergists/immunologists who administer OIT

METHODS

Survey Design

- A double-blind, self-administered, online survey was fielded between February 17 and April 22, 2019
- Potential physician respondents were recruited via email invitation

Study Population

- All physician respondents met the following inclusion criteria:
  - Licensed to practice medicine in the US
  - Board-eligible or board-certified in allergy and/or immunology
  - Treated ≥5 patients with food OIT in the past 2 years in their clinical practice

Analysis

- Survey responses were described using summary statistics, including frequencies and percentages for categorical data

RESULTS

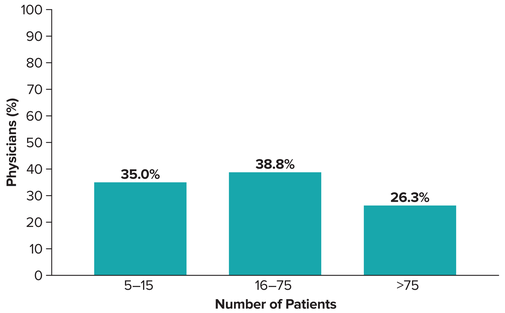
Physician Respondents

- A total of 80 allergists/immunologists completed the survey, achieving 80% of the study target sample size
  - 43.8% of physician respondents (n=35) worked in single-specialty group practices
  - 78.8% (n=63) had been practicing for ≥11 years

OIT Practice Patterns

- Nearly two-thirds of physicians (65.0%; n=52) treated >15 patients with food OIT in the past 2 years (**Figure 1**)

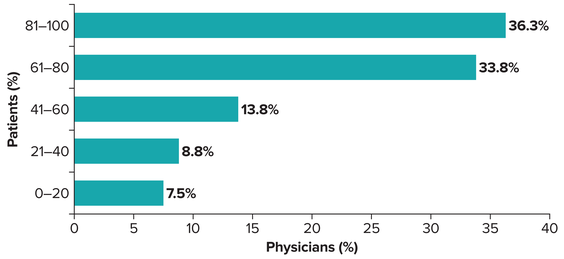
Figure 1. The Majority of Physicians Treated >15 Patients With OIT in the Past 2 Years



Survey question: *"In the past 2 years, approximately how many patients have you treated with food OIT in your clinical practice? [free text] Number of patients"*
OIT, oral immunotherapy.

- Physicians indicated the most common observation period following final initial escalation dose during food OIT was 60 minutes (48.8%; n=39), followed by 2 hours (22.5%; n=18), 90 minutes (12.5%; n=10), and 30 minutes (10.0%; n=8)
  - Most common observation periods following updosing were 60 minutes (40.0%; n=32) and 30 minutes (28.8%; n=47)
- 70.1% of physicians (n=56) indicated that the target maintenance dose was reached by >60% of food OIT patients (**Figure 2**)
  - Following attainment of target maintenance dose, most physicians reported seeing patients for follow-up visits every 3 (38.8%; n=31) or 6 months (45.0%; n=36)
- Spirometry/peak flow measurement for OIT patients with well-controlled mild, moderate, or severe persistent asthma or well-controlled, mild intermittent asthma was "always" performed by 48.8% (n=39) to 57.5% (n=46) of physicians

Figure 2. The Majority of Physicians Stated the Target Dose Was Achieved in >60% of OIT Patients

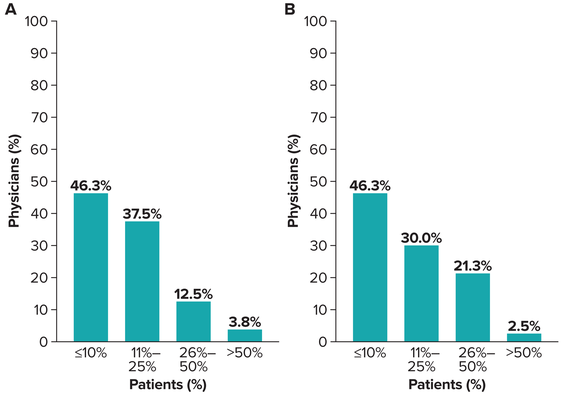


Survey question: *"Approximately what percent of your patients starting on peanut OIT reach the target maintenance dose?"*
OIT, oral immunotherapy.

Side-Effect Management

- 46.3% of physicians (n=37) reported initial-dose or updosing reactions requiring symptomatic treatment in fewer than 10% of patients (**Figure 3**)

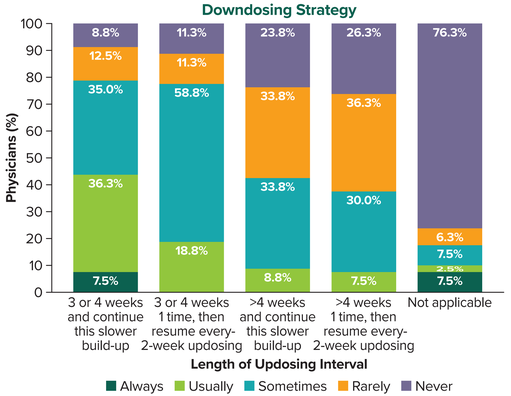
Figure 3. In-Clinic Reactions Requiring Treatment Occur Infrequently During Initial OIT Dosing (A) or During OIT Updosing Visit (B)



Survey questions: (A) *"Approximately what proportion of food OIT patients experience reactions **during the initial dose escalation day** which require symptomatic treatment?"*; (B) *"Approximately what proportion of food OIT patients experience reactions **during an updosing visit** which require in-clinic symptomatic treatment?"*
OIT, oral immunotherapy.

- 36.3% of physicians (n=29) "always" or "usually" treat gastrointestinal (GI) symptoms with H_1 blockers vs 28.8% (n=23) who "always" or "usually" use H_2 blockers
- 53.8% of physicians (n=43) reported rarely or never using proton pump inhibitor monotherapy for GI symptoms
- For patients who required downdosing due to GI symptoms, the most common strategies "always" or "usually" used by physicians were prolonging the updosing interval to 3 or 4 weeks and continuing this slower updosing schedule (43.8%; n=35) (**Figure 4**)

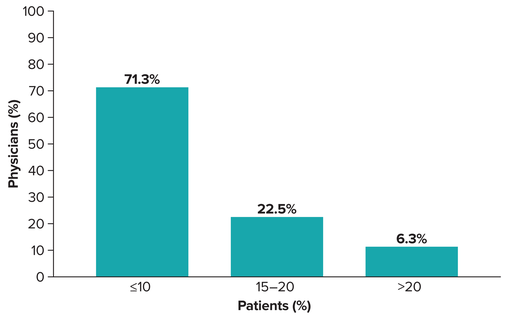
Figure 4. For OIT Patients Requiring Downdosing Due to GI Symptoms, Physicians Most Commonly "Always" or "Usually" Reduced Updosing Intervals to >4 Weeks Either Temporarily or Long-Term



Survey question: *"In food OIT patients who require downdosing due to GI symptoms, how often do you use each of the following strategies?"*
GI, gastrointestinal; OIT, oral immunotherapy.

- GI side effects were reported to cause discontinuation in ≤10% of patients in the majority of practices (71.3%) (**Figure 5**)

Figure 5. More Than Two-Thirds of Physicians Said 10% or Fewer of Their Patients Discontinued OIT Due to GI Side Effects



Survey question: *"Approximately what percent of your OIT patients discontinue OIT because of GI side effects?"*
GI, gastrointestinal; OIT, oral immunotherapy.

CONCLUSIONS

- Data from this real-world survey of allergists/immunologists who have implemented OIT into their practice indicate that OIT practice patterns are largely consistent including:
  - Observation times: 1 hour for 48.8% of physicians
  - Use of spirometry before updosing in patients with asthma: always performed by 48.8% to 57.5% of physicians, depending on asthma severity
  - Management of GI symptoms: 36.3% of physicians always or usually use H_1 blockers
- Physicians indicated that the target maintenance dose for OIT is achieved by >60% of patients
- Findings suggest low rates of discontinuation (<10% of patients) for OIT-associated GI symptoms
- After downdosing due to GI side effects, the majority of physicians either always or usually prolong the duration of the updosing interval

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