INTRODUCTION

The prevalence of food allergy is increasing worldwide and in the United States (1–3). Oral immunotherapy (OIT) for food allergy has been shown to increase reaction thresholds in children and adults with food allergies, but is associated with a risk of allergic reactions and increased use of epinephrine (4–6). Limited real-world data are available on the use of OIT and the management of side effects in patients with food allergy.

OBJECTIVE

To describe the use of epinephrine during food OIT 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 responding physicians were recruited via email invitation.

Study Population

All responding physicians 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

Responding Physicians

A total of 90 allergists/immunologists completed the survey, achieving 80% of the target sample size (n=112) (Figure 1).

Most responding physicians (85%; n=68) spent more than 80% of their time in direct patient care (Table 1). The mean number of years practicing allergy was 15.0 years, and the mean number of years practicing allergy/immunology was 6.2 years. The most common types of patients treated were 30–60% of their time in direct patient care (41.3% of patients; n=33) (Table 1).

Epinephrine Use

Most physicians (81%; n=65) reported that 10% of patients treated with OIT experienced in-clinic reactions that required epinephrine treatment (Figure 2). Most physicians (76.3%; n=61) advised patients by phone to administer epinephrine for OIT reactions at home that involved treatment with epinephrine, and 62.5% of physicians (n=50) indicated that in ≥75% of such cases they would also advise patients to seek emergency treatment (Figure 3). Figure 3 illustrates the frequency and severity of in-home OIT reactions requiring epinephrine treatment.

OIT Reactions Requiring Epinephrine treatment

—Grade 1 reactions were “rare” for 41.3% of patients or “never occurred” for 47.5% of patients; grade 2 reactions were “rare” for 26.3% of patients or “never occurred” for 73.7% of patients; and grade 4 reactions “never occurred” for 92.5% of patients (Figure 3).

—Most physicians (76.3%; n=61) advised patients by phone to administer epinephrine for an OIT reaction ≤2 times a year.

OIT Reactions Requiring Epinephrine treatment

—58.9% (n=47) of physicians reported that ≤10% of patients treated with OIT experienced reactions at home that required epinephrine treatment.

CONCLUSIONS

—The majority of allergists/immunologists participating in this real-world survey (81.3%; n=65) indicated that in-clinic OIT reactions requiring epinephrine are infrequent (≤10% of patients).

—The frequencies of grades 1 and 2 at-home reactions were greater than those of grades 3 and 4 reactions.

—Exercise and viral URI with fever were the most common co-factors associated with allergic reactions at home requiring epinephrine treatment.

—Epinephrine-treated OIT- and environmental SCT-induced reactions were equally severe.

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Disclosures

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