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Results of the REALISE (Real-life Use and Safety of EPIT) Study: A Multicenter Blinded Randomized Controlled Trial Investigating the Safety of Epicutaneous Immunotherapy for Peanut Allergy in Peanut-Allergic Children

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Disclosures

- Research funding: DBV Technologies, Aimmune Therapeutics
- IDMC: Regeneron
- Honorarium: Medscape
- Clinical Advisory Board: FARE

Study Aims to Assess Safety of EPIT for Peanut Allergy in Children 4 to 11 Years of Age

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- Epicutaneous immunotherapy (EPIT) with Viaskin Peanut 250 µg (VP250) is currently being investigated as a potential treatment option for peanut-allergic children aged 4 to 11 years
- This Phase 3 study was designed to assess the safety of VP250 over a 36-month treatment period in a trial population that approximated its anticipated real-world use
- Results presented here are from the 6-month blinded period

REALISE: Phase 3 Study of EPIT for Peanut Allergy in Children in Anticipated Real-World Use Setting[1-3]

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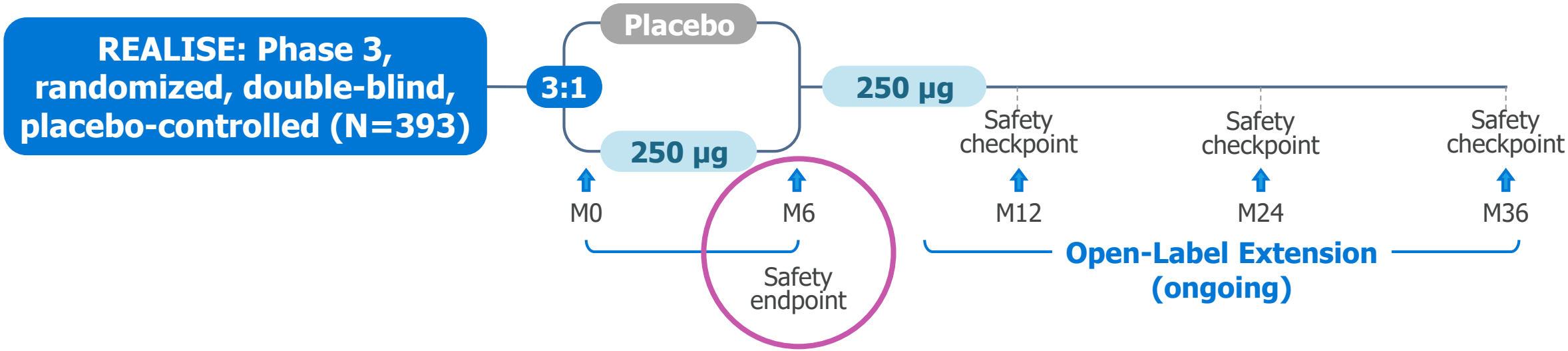
Participants were selected based on criteria used in usual real-world medical practice for peanut allergy diagnosis

Target enrollment and entry criteria

- **393 patients aged 4–11 years** with history of IgE-mediated reactions to peanut, **including those with history of severe anaphylaxis (n=14)**
  - **Severe anaphylaxis** defined as food-induced anaphylaxis reaction of Grade 3, including any one of the following symptoms: hypoxia, hypotension (>20% drop in blood pressure), bradycardia, cardiac arrest, cardiovascular collapse, cyanosis or SpO2 ≤92% at any stage, neurological compromise, confusion, loss of consciousness, and incontinence[4]
- **32 centers** in the United States and Canada
- **Confirmed peanut allergy** by SPT (≥8 mm) and sIgE levels (≥14 kU/L)
- **No entry food challenge** required

1. DBV Technologies. Press release. November 20, 2017. https://media.dbv-technologies.com/d286/ressources/_pdf/5/4305-PR_REALISE-11-20-2017-ENG-PDF.pdf. Accessed January 31, 2020. **2.** ClinicalTrials.Gov. NCT02916446. https://clinicaltrials.gov/ct2/show/NCT02916446?term=NCT02916446&rank=1. Accessed January 31, 2020. **3.** DBV Technologies. Data on file, 2018. **4.** Brown SG. *J Allergy Clin Immunol*. 2004;114(2):371-376.

REALISE Study Design and Safety Data Collection[1-3]



- **Safety data** were collected at specific time points by investigators, as well as throughout the course of treatment as documented in patient diaries
  - 3 prespecified administration site symptoms (local itching, redness, and swelling) were recorded and graded (mild, moderate, or severe) daily

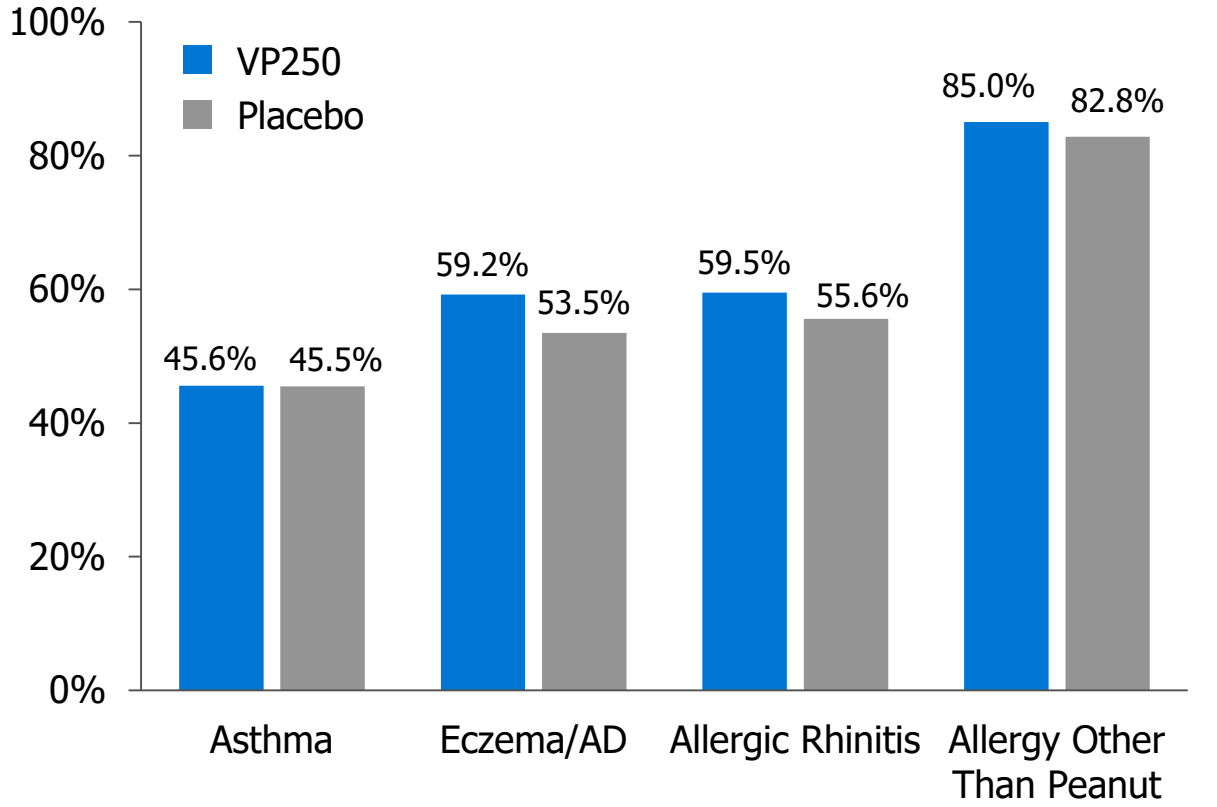
1. DBV Technologies. Press release. November 20, 2017. https://media.dbv-technologies.com/d286/ressources/_pdf/5/4305-PR_REALISE-11-20-2017-ENG-PDF.pdf. Accessed January 31, 2020. **2.** ClinicalTrials.Gov. NCT02916446. https://clinicaltrials.gov/ct2/show/NCT02916446?term=NCT02916446&rank=1. Accessed January 31, 2020. **3.** DBV Technologies. Data on file, 2018.

Baseline Characteristics of Study Participants

Baseline Demographics

	VP250	Placebo	Total
Randomized (N)	294	99	393
Age, mean (y)	7.2	7.2	7.2
Female (%)	44.2%	34.3%	41.7%
Median peanut-specific IgE (kU/L)	91.4	89.5	91.2
History of severe anaphylaxis (N)	10	4	14 (3.6%)

Medical History



High Compliance and Low Discontinuations Due to Treatment-Emergent Adverse Events (TEAEs)

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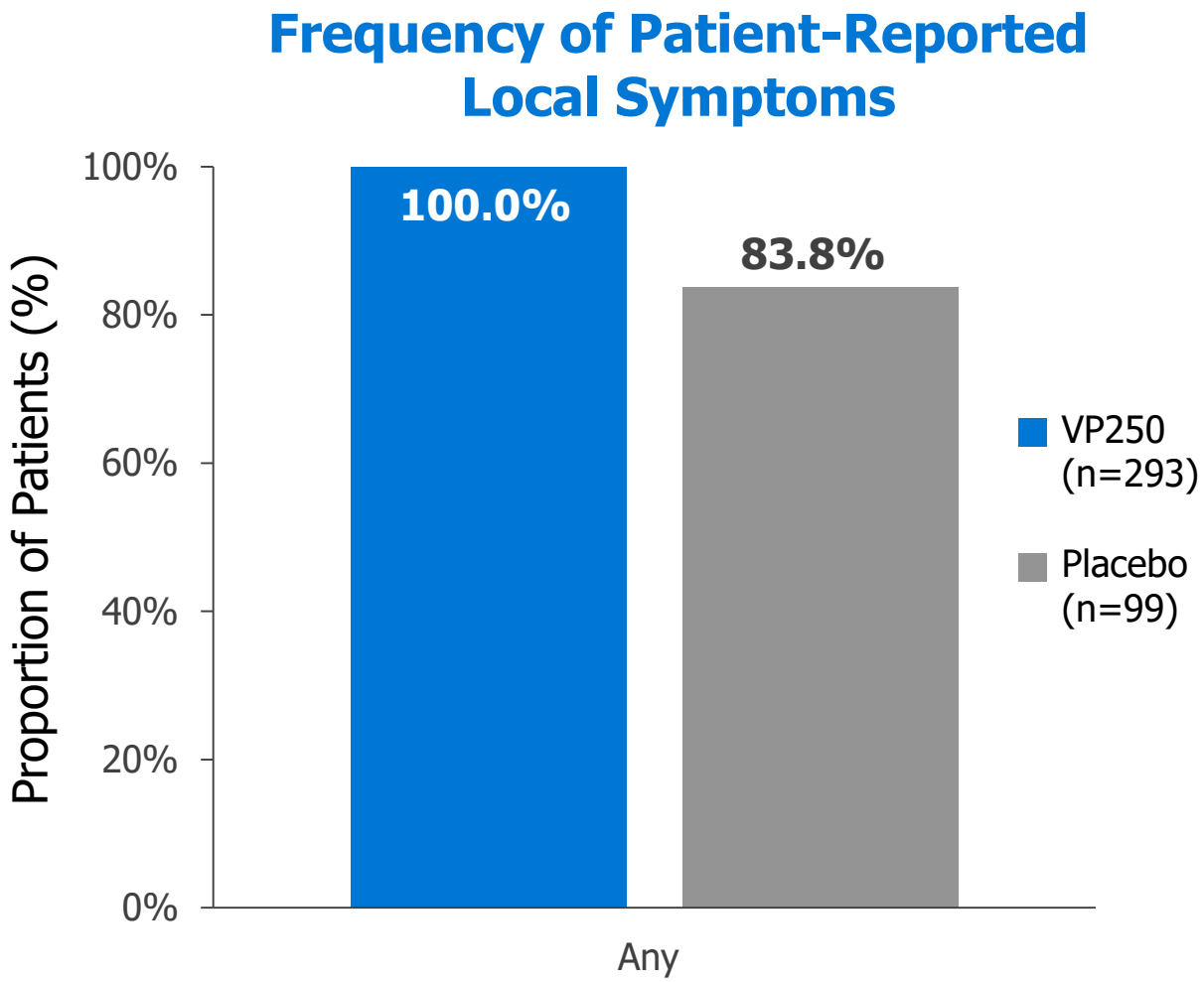
- Compliance remained high at ~98% throughout the 6-month, double-blind study period
- TEAEs leading to study discontinuation were infrequent (1.7% in VP250 group) and included 2 cases of moderate anaphylaxis, 1 case of application site reactions, 1 case of urticaria, and 1 case of mild induration at patch site
  - Other reasons for discontinuation among the total study population included lost to follow-up (0.5%), physician decision (0.3%), and withdrawal of consent (0.8%)

	VP250	Placebo	Total
Compliance (%)	98.3	97.9	98.2
Withdrawals (N)	9 (3.1%)	1 (1%)	10 (2.5%)
Withdrawals due to TEAEs (N)	5 (1.7%)	0	5 (1.3%)

According to Patient Diaries, Most Patients Experienced Local Reactions

- Nearly all patients reported local skin reactions of redness, itching, or swelling in their daily diaries



Local Skin Reactions Decreased in Severity Over Time

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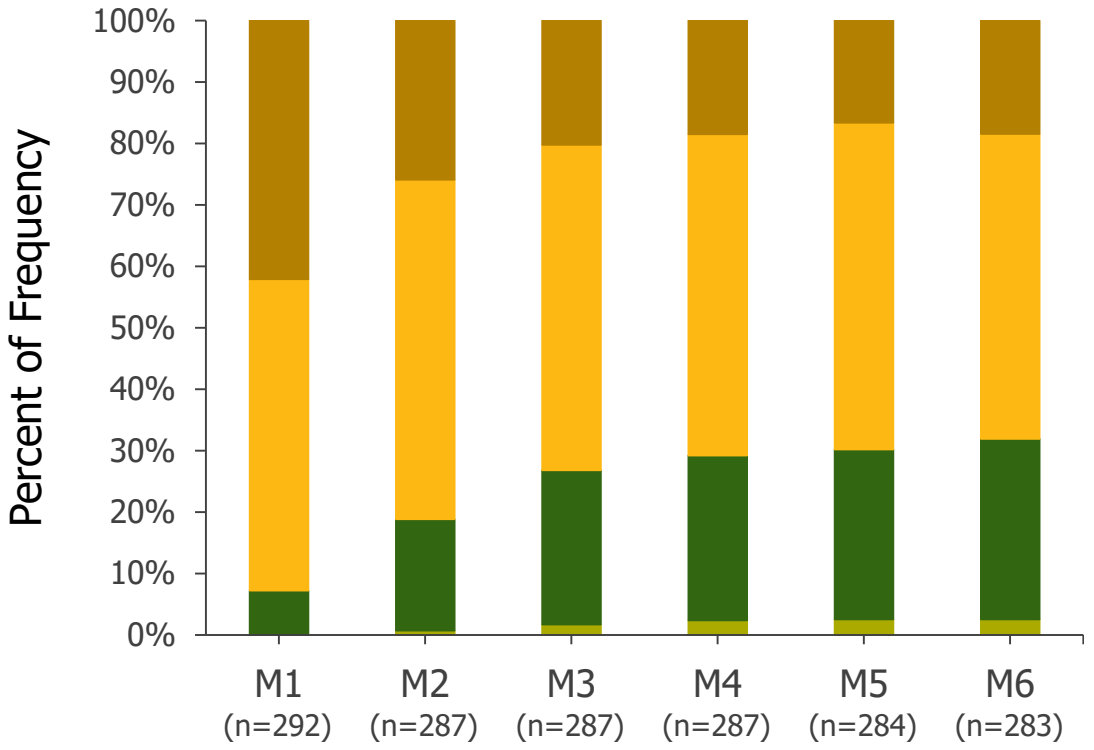
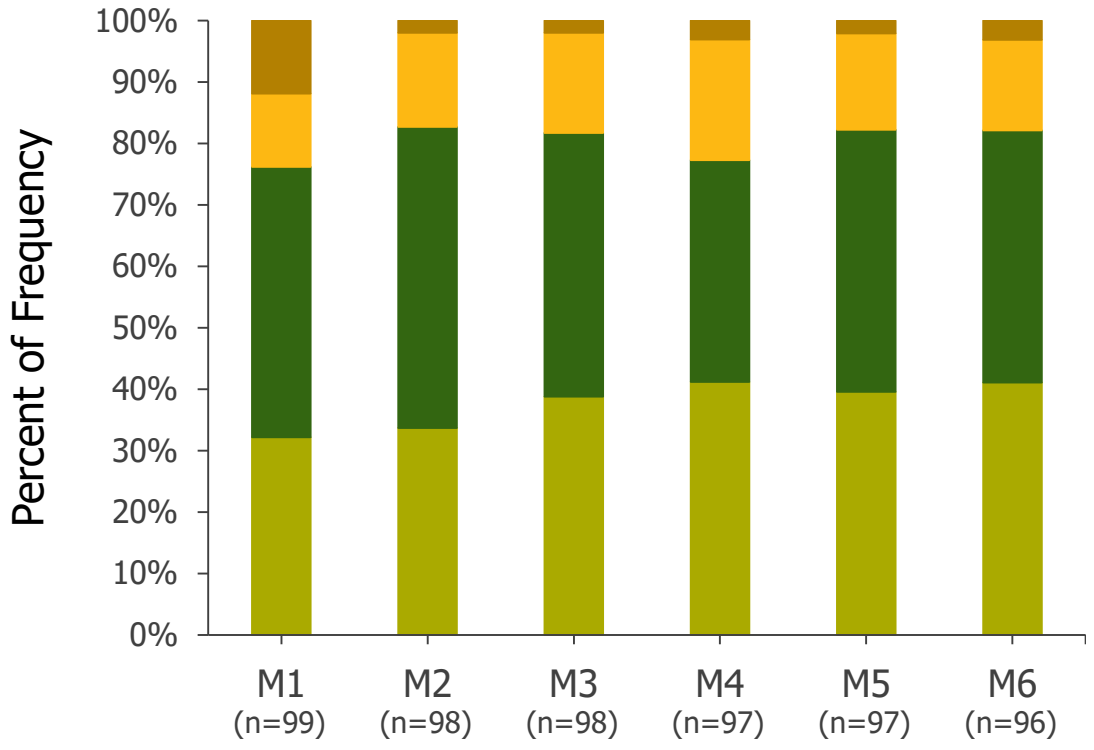
Local Reactions Over Time in VP250 Group



Local Reactions Over Time in Placebo Group



Grade 0 (negative)

Grade 1 (only erythema, or erythema + infiltration)

Grade 2 (erythema, few papules)

Grade 3 (erythema, many or spreading papules)

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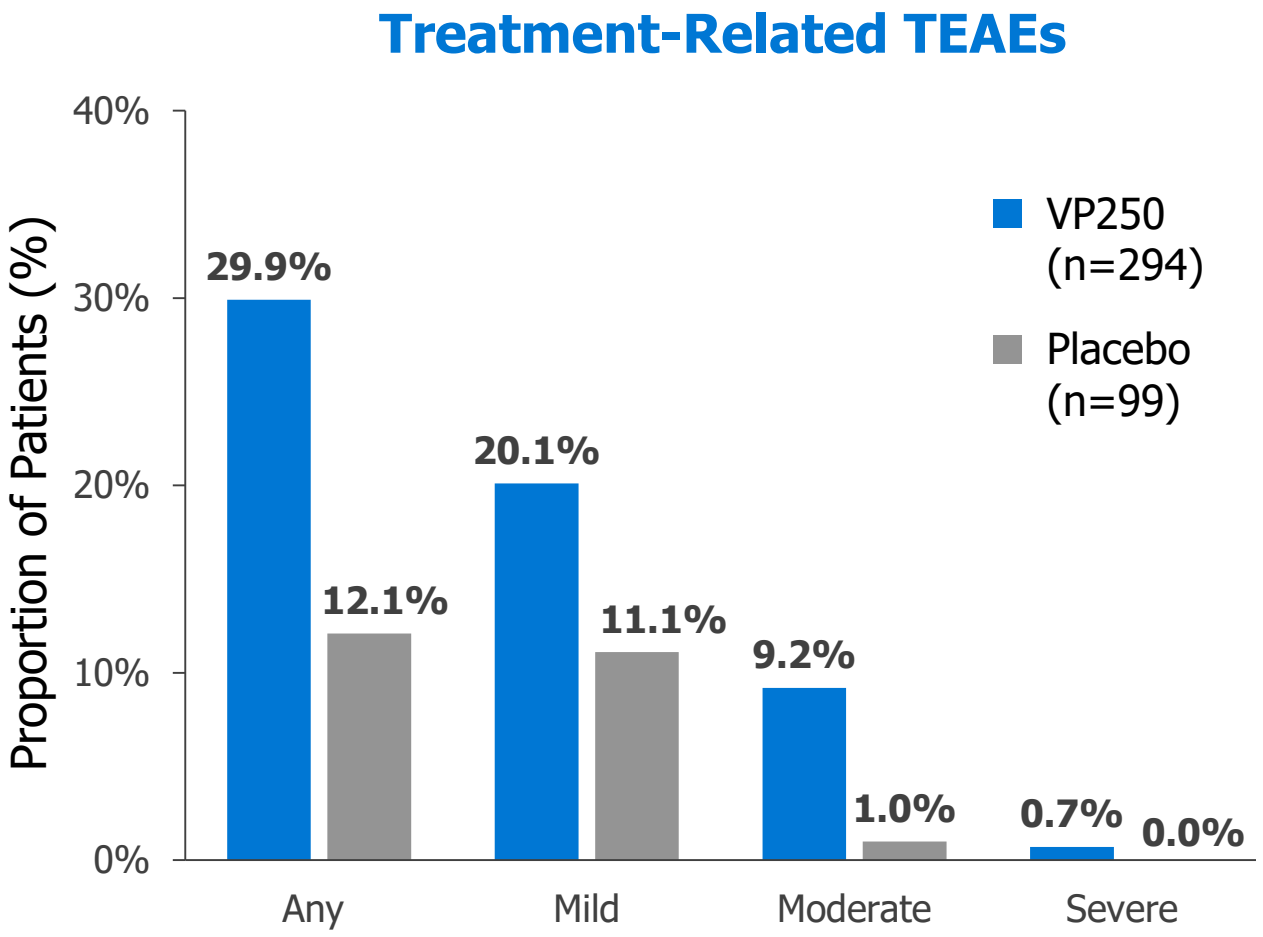
The Majority of Treatment-Related TEAEs Were Mild or Moderate

- Most treatment-related TEAEs (ie, reactions reported as possibly related, probably related, or related as determined by the site investigator) were mild or moderate
- A low percentage of patients experienced severe treatment-related TEAEs
  - 2 (0.7%) patients in the VP250 group and none in the placebo group
- 1 serious treatment-related TEAE occurred in 1 (0.3%) patient in the VP250 group



The Majority of Treatment-related TEAEs Were Local Administration Site Reactions

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- The most common treatment-related administration site reactions in the VP250 and placebo groups, respectively, included*:
  - Eczema: 10.2% vs 5.1%
  - Discoloration: 3.1% vs 0%
  - Erythema: 2.0% vs 1.0%
  - Pruritus: 1.7% vs 1.0%

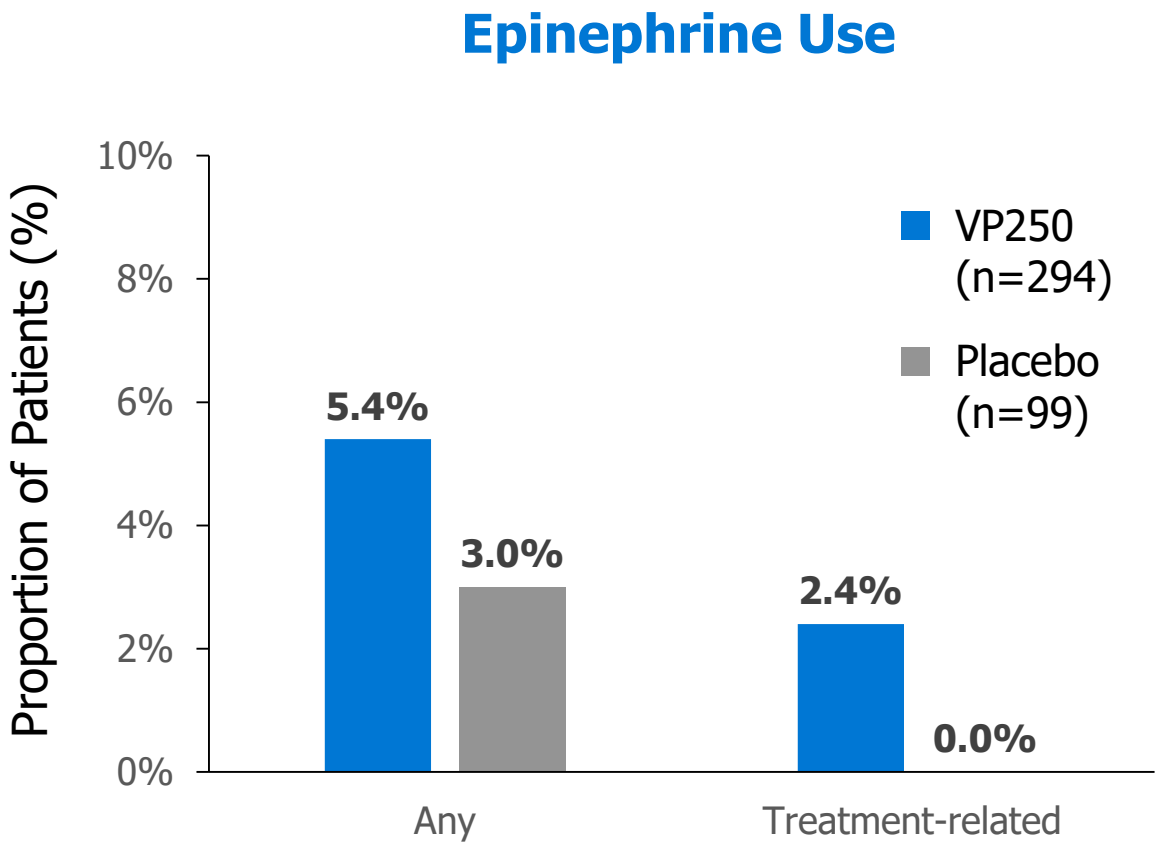
*During the 6-month double-blind period, 3 prespecified application site reactions (erythema [redness], pruritus [itching], and swelling) were reported and graded daily in the subjects' diaries. These 3 prespecified solicited symptoms were not recorded as an AE except if these symptoms were part of another concomitant disease or if these symptoms led to a subject's study discontinuation or serious AEs.

Treatment-Related TEAEs by System Class

	VP250 (n=294)	Placebo (n=99)
Administration site conditions	19.7%	8.1%
Skin and subcutaneous tissue disorders	8.8%	4.0%
Immune system disorders	5.1%	0.0%
Eye disorders	2.4%	1.0%
Infections and infestations	1.0%	0.0%
Gastrointestinal disorders	0.7%	1.0%
Respiratory, thoracic, and mediastinal disorders	0.7%	1.0%

Low Rates of Treatment-Related Epinephrine Use Were Observed

- TEAEs, regardless of treatment relatedness, leading to epinephrine administration occurred in 5.4% of VP250 patients and 3.0% of patients in the placebo group
- 7 (2.4%) patients in the VP250 group and no patients in the placebo group received epinephrine due to a treatment-related TEAE
  - 5 patients remained in the study
  - None had severe anaphylaxis
  - All occurrences were in patients without a history of severe anaphylaxis



Summary

- This study assessed the **safety of EPIT with VP250 in peanut-allergic children** (based upon history, specific IgE, and SPT), in a setting that **approximated anticipated real-world use**, including **no restrictions based on prior reaction severity and no food challenges**
- **High compliance** and **low discontinuations due to TEAEs** were observed
- According to patient diaries, **most patients experienced local reactions**, which **decreased in severity over time**
- The **majority** of treatment-related TEAEs were **mild or moderate local administration site reactions**
- **Low rates of treatment-related epinephrine** use were observed
- Overall, **VP250 was observed to be well tolerated** in this population of peanut-allergic children, consistent with previous Phase 2b and 3 efficacy and safety studies