A supplement to
Pediatric News®

Panelists:

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Disclosures: This supplement was developed with support from Regeneron and Sanofi Genzyme. The panelists have no conflicts of interest to report.

Developed under the direction and sponsorship of Sanofi and Regeneron Pharmaceuticals, Inc.

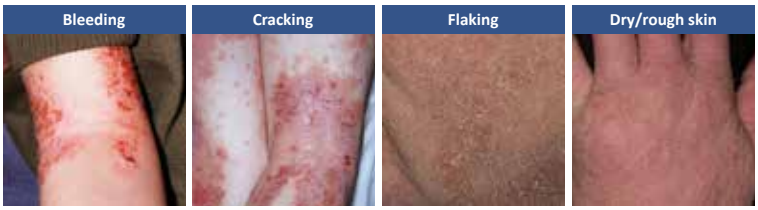
Medical writing and editorial support provided by *p*-value communications.This supplement was developed on behalf of Regeneron and Sanofi Genzyme.

The Burden of Atopic Dermatitis and a Revolutionary Treatment Option for Patients 6+ Years of Age With Uncontrolled Moderate-to-Severe Disease

Atopic Dermatitis (AD) Is More Than Lesions and Itchy Skin

AD is a chronic, recurring, systemic, immune-mediated disease driven in part by persistent type 2 inflammation and characterized by eczematous skin lesions and pruritus.[1-3] Common lesional symptoms, reported to occur at least 5 days per week by more than 50% of adults with uncontrolled moderate-to-severe AD in one study, include bleeding, cracking, flaking, and dry, rough skin (**Figure 1**).[4]

FIGURE 1. Common Lesional Symptoms in Adults With Uncontrolled Moderate-to-Severe AD[4]



Itch is the most common and persistent burden, and patients with uncontrolled moderate-to-severe AD experience frequent, extended periods of itch (**Box 1**).[4] AD may be associated with a variety of comorbidities, as well as an increased risk of skin infections. For example, database analyses of hospitalized patients from the National Inpatient Sample found a higher prevalence of skin infections in patients with AD than in those without AD.[5-8]

BOX 1. Itch, as Reported by Adults With Uncontrolled Moderate-to-Severe AD (N=380)[4]

86% Daily presence of itch

61% Severe or unbearable itching

>60% Itch ≥12 hours/day

An important consideration in AD is severity. In AD, no biomarkers are currently recommended for assessment of disease severity, and assessment tools are not routinely used in clinical practice.[1] A consensus definition of moderate-to-severe AD has been proposed, as shown in **Box 2**. Patients with moderate-to-severe AD may have greater body surface area involvement, a more continuous disease course, and more severe itch.[9]

BOX 2. Consensus Definition of Moderate-to-Severe AD[1,a]

- A minimum involvement of 10% body surface area (BSA) *or*, regardless of BSA…
  - Individual lesions with moderate-to-severe features
  - Involvement of highly visible areas or those important for function (e.g., neck, face, genitals, palms, and/or soles)
  - Significantly impaired quality of life (QOL)

[a]The roundtable, from which these recommendations were derived, was sponsored by Regeneron and Sanofi Genzyme. The authors developed the recommendations on their own, without input from Regeneron and Sanofi Genzyme.

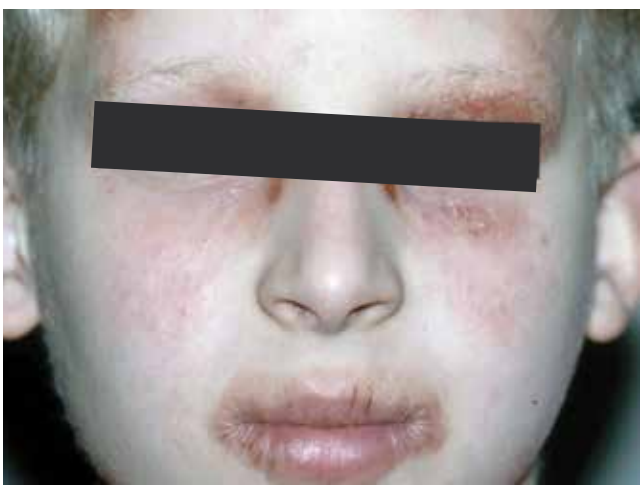
Q: How do you differentiate between moderate and severe AD in terms of signs and symptoms?

Dr. Abramovits: The first question I ask my patients is, "How bad is your itch?" Then, I assess the affected area (or areas) for erythema, excoriations, and lichenification and consider the race/ethnicity of the patient.

Dr. Oquendo: Itch is one of the most important symptoms that we ask about. Rather than focusing on BSA involvement or physical signs of AD, I focus on whether or not a child has persistent itching throughout their day and night. These things play a role in whether a patient may be appropriate for referral to a dermatologist. I also consider the patient's history of failed prior treatments.

Both Patients and Caregivers Experience Burdens of AD

Significant disease burdens are reported by both patients and caregivers, and it is noteworthy that these burdens can be unpredictable. In a survey of 2002 caregivers and patients with moderate-to-severe AD, patients experienced 8-10 flares per year, each lasting approximately 15 days. On average, these patients spend approximately one-third of each year in flare. However, the burden extends beyond the immediate symptoms: >50% of patients and caregivers think about the next flare even during remission.[10] Caregivers report additional concerns, as shown in **Box 3**.[11]



BOX 3. Caregiver Concerns[11]

79% worried whether their children or adolescents would outgrow the disease[a]
22 hours per week managing a child's and/or adolescent's disease[a]

[a]In an international online survey of self-reported caregivers (N=235) of children and adolescent AD patients

Q: How do the unpredictability and chronicity of AD affect your management strategies? How do you discuss the unpredictability and chronicity of AD with patients and caregivers?

Dr. Oquendo: Sometimes, you start with emollients every time the patient's skin feels dry. I inform the parents that this treatment strategy will be ongoing for 3 to 4 months before reducing the number of applications per day over time, depending on the response. A lot of the parents are flabbergasted by the amount of work that AD management entails.

Dr. Abramovits: My patients have often been to primary care physicians or pediatricians like Dr. Oquendo. I explain to patients that I try to help them be able to manage their symptoms by prescribing proper treatments and advising them on how to avoid known triggers. I recommend medications that might either minimize the severity of AD symptoms or help reduce the occurrence of flares per year. I tell patients not to believe myths claiming that AD will definitely disappear over a certain period of time, or that it can be cured by the time the child reaches adolescence.

AD Persistence Is Unpredictable

Although estimates vary, based on survey, census, and claims database analyses, it has been suggested that approximately 13 million people age 6 years and older have AD,[12-15] and, of these, approximately 2.3 million have moderate-to-severe AD that remains uncontrolled despite being treated.[12,16-18] Although it is often believed that AD will be "outgrown," persistence is unpredictable and approximately 20% of children with AD will have persistent disease.[19-21]

Q: What factors do you see that might suggest that AD may persist in a patient? How do you discuss disease persistence with patients and caregivers?

Dr. Abramovits: I tell them that the severity of AD symptoms waxes and wanes—do not expect the ideal situation. Be prepared that you might need to address this condition for a long time. You must take care of your skin for many years to come because there are triggers out there that can appear at any time. For some patients, AD can be seasonal (e.g., tied to pollen or weather changes). For others, AD can be constantly triggered, which may require continuous management of the disease. It's important to note that a relapse of AD symptoms can occur at any moment.

Dr. Oquendo: Like Dr. Abramovits mentioned, I inform them that AD may need to be managed for many years to come. In my experience, some of the predictor values are severity and extent of disease, family history, atopic disease history (e.g., asthma, allergic rhinitis), and even the presence of keratosis pilaris. If the patients identify with these predictor values, I inform them that this disease may be lifelong.

Diagnosis Relies on Clinical Features

Consensus recommendations have been proposed that may be useful in clinical practice, which classify clinical findings of AD into "essential," "important," and "associated" features. The essential and important features are listed in **Table 1**.

TABLE 1. Essential and Important Features in the Diagnosis of AD[1,a]

Essential Features	Important Features
• Pruritus • Eczematous dermatitis with typical morphology and age-specific patterns – Facial, neck, and extensor involvement in infants and children – Sparing of the groin and axillary regions in infants and children – Flexural lesions at any age • Chronic or relapsing history	• Early age of onset • Atopy – Personal and/or family history of atopic disorders – Raised total IgE levels or allergen-specific IgE • Xerosis • Lichenification

[a]There are other associated features that help to suggest the diagnosis of AD.

Referral to Specialized Care May Be Considered for Appropriate AD Patients

Many patients with mild AD are able to control their disease with basic skin care, including use of moisturizers, and avoidance of irritants. When symptoms remain uncontrolled, patients may have moderate-to-severe AD.[9,22]

Considerations for Referral[9,22,36]
- Patient has moderate-to-severe AD
- Patient has refractory AD
- Conventional therapies fail to provide sufficient improvement
- AD involves the face or skin folds
- A comorbidity is present

Q: In your experience, what factors most often play a role in referral of AD patients to specialists?

Dr. Oquendo: I refer to a dermatologist if a patient presents with extensive skin involvement that may warrant systemic treatment. Another factor is unresponsiveness to conventional treatments. The last factor involves parents. In my experience, parents seek second opinions and may be less hesitant to start certain treatments when they are able to consult with a specialist.

Dr. Abramovits: Family doctors and pediatricians manage a very significant number of AD patients. When complications are noted or even predicted, they should consider referring. Essentially, it is a lack of response to topical therapies that may warrant referrals. Earlier referrals may lead to improved outcomes for some patients with AD.[23,24]

DUPIXENT® (dupilumab): Revolutionizing AD

Indication

DUPIXENT is indicated for the treatment of patients aged 6 years and older with moderate-to-severe AD whose disease is not adequately controlled with topical prescription therapies or when those therapies are not advisable. DUPIXENT can be used with or without topical corticosteroids.[25]

Important Safety Information

CONTRAINDICATION

DUPIXENT is contraindicated in patients with known hypersensitivity to dupilumab or any of its excipients.[25]

Important Safety Information (con't)

Warnings and Precautions

Hypersensitivity: Hypersensitivity reactions, including generalized urticaria, rash, erythema nodosum, anaphylaxis and serum sickness or serum sickness-like reactions, were reported in <1% of subjects who received DUPIXENT in clinical trials. If a clinically significant hypersensitivity reaction occurs, institute appropriate therapy and discontinue DUPIXENT.[25]

Conjunctivitis and Keratitis: Conjunctivitis and keratitis occurred more frequently in atopic dermatitis subjects who received DUPIXENT. Conjunctivitis was the most frequently reported eye disorder. Most subjects with conjunctivitis or keratitis recovered or were recovering during the treatment period. Advise patients to report new onset or worsening eye symptoms to their healthcare provider.[25]

Reduction of Corticosteroid Dosage: Do not discontinue systemic, topical or inhaled corticosteroids abruptly upon initiation with DUPIXENT. Reductions in corticosteroid dose, if appropriate, should be gradual and performed under the direct supervision of a physician. Reduction in corticosteroid dose may be associated with systemic withdrawal symptoms and/or unmask conditions previously suppressed by systemic corticosteroid therapy.[25]

Atopic Dermatitis Patients With Comorbid Asthma: Advise patients not to adjust or stop their asthma treatments without consultation with their physicians.[25]

Parasitic (Helminth) Infections: It is unknown if DUPIXENT will influence the immune response against helminth infections. Treat patients with pre-existing helminth infections before initiating therapy with DUPIXENT. If patients become infected while receiving treatment with DUPIXENT and do not respond to anti-helminth treatment, discontinue treatment with DUPIXENT until the infection resolves.[25]

Please see additional Important Safety Information throughout.

DUPIXENT Helps Repair the Skin by Specifically Targeting a Key Source of Type 2 Inflammation

Unlike topical and oral corticosteroids, DUPIXENT targets a source of underlying inflammation to proactively

treat AD. Not an immunosuppressant or a steroid, DUPIXENT (dupilumab) is the first and only dual inhibitor of IL-4 and IL-13 receptor signaling.[25]

5 Pivotal AD Clinical Studies With More Than 2700 Patients

DUPIXENT has been studied in 3 pivotal trials in adults and 1 pivotal trial in adolescents with uncontrolled moderate-to-severe AD, and 1 pivotal trial in children with uncontrolled severe AD (**Table 2**).[25-29] DUPIXENT was initially approved for adults in 2017, with subsequent approvals for adolescents in 2019 and for children in 2020.[25,30,31]

Assessments in the clinical trials included the Investigator's Global Assessment (IGA), the Eczema Area and Severity Index (EASI), and peak pruritus numerical rating scale (NRS), which are summarized in **Table 3**.[12,25-29,32,34,35] Baseline disease severity in adults, adolescents, and children is shown in **Table 4**.[12,25,29]

TABLE 2. DUPIXENT AD Pivotal Trials[25-29]

Clinical Trial	Patients	Duration	Treatment
ADULT Monotherapy (2 Trials)[a]	1379 patients (age ≥18 years)	16 weeks	DUPIXENT 300 mg Q2W SC[d] vs placebo SC
ADULT Concomitant TCS[a,b]	740 patients (age ≥18 years)	52 weeks	DUPIXENT 300 mg Q2W[d] SC + TCS vs placebo SC + TCS
ADOLESCENT Monotherapy[a]	251 patients (age 12-17 years)	16 weeks	DUPIXENT 200/300 mg Q2W SC[e,f] vs placebo SC based on weight
CHILDREN Concomitant TCS[b,c]	367 patients (age 6-11 years)	16 weeks	DUPIXENT 300 mg Q4W SC + TCS/ 200 mg Q2W SC + TCS[g] vs placebo SC + TCS based on weight

Q2W=once every 2 weeks; Q4W=once every 4 weeks; TCS=topical corticosteroid.

[a] Patients with moderate-to-severe disease as defined by Investigator's Global Assessment (IGA) score ≥3 on a scale of 0-4, Eczema Area and Severity Index (EASI) score ≥16 on a scale of 0-72, and disease body surface area (BSA) ≥10%.

[b] All patients received concomitant TCS for lesional areas; in the monotherapy trials, patients who required rescue treatment with topical TCS were classified as nonresponders.

[c] Patients with severe disease as defined by IGA score 4 on a scale of 0-4, EASI score ≥21 on a scale of 0-72, and disease BSA ≥15%.

[d] QW dosing was also studied in a randomized treatment arm, but no additional benefit was seen over Q2W dosing.

[e] Q4W dosing was also studied in a randomized treatment arm, but no additional benefit was seen over Q2W dosing.

[f] Patients with body weight <60 kg or ≥60 kg at baseline received a loading dose of 400 mg followed by 200 mg Q2W, or a loading dose of 600 mg followed by 300 mg Q2W, respectively.

[g] Subjects in the DUPIXENT Q4W + TCS group received an initial dose of 600 mg on Day 1, followed by 300 mg Q4W from Week 4 to Week 12, regardless of weight. Subjects in the DUPIXENT Q2W + TCS group with baseline weight of <30 kg received an initial dose of 200 mg on Day 1, followed by 100 mg Q2W from Week 2 to Week 14, and subjects with baseline weight of ≥30 kg received an initial dose of 400 mg on Day 1, followed by 200 mg Q2W from Week 2 to Week 14. In analyses by prespecified baseline weight strata, optimal doses for efficacy and safety were: 15 kg to <30 kg (300 mg Q4W); ≥30 kg (200 mg Q2W).

TABLE 3. Assessments[12,25-29,32,34,35]

Scale	Assessment	Score Range
IGA	Global severity	0 ("clear skin") to 4 ("severe disease")
EASI	Lesion extent and severity	0-72 (>21 indicates severe disease)
Peak Pruritus NRS	Patient-reported itch	0 ("no itch") to 10 ("worst imaginable itch")

TABLE 4. Baseline Disease Severity[12,25,29]

Select Baseline Characteristics	ADULT Monotherapy and Concomitant TCS (N=2119)	ADOLESCENT Monotherapy (N=251)	CHILDREN Concomitant TCS (N=367)
Mean disease duration (years)	28	12	7
Patients with IGA score 4 (%)	48	54	99
Mean EASI score	33	36	38
Peak pruritus NRS (weekly average)	7	8	8
Mean BSA (%)	55	57	58

Clinically Meaningful Itch Relief and Skin Clearance in Patients Aged 6 Years and Older

Clinically meaningful itch relief and skin clearance was observed at Week 16 in adults, adolescents, and children (**Table 5**).[25-27,29,32] As shown, 75% of children receiving DUPIXENT + TCS achieved at least a 75% improvement in lesion extent and severity at Week 16 vs ~27% of children receiving placebo + TCS.[27] The time courses of improvements in itch and in lesion extent and severity in children are displayed in **Figure 2**.

TABLE 5. Clinical Efficacy in Adults, Adolescents, and Children at Week 16[25-27,29,32]

	ADULT Monotherapy		ADULT Concomitant TCS		ADOLESCENT Monotherapy		Children Concomitant TCS (Severe AD)			
							<30 kg		≥30 kg	
Endpoint (Week 16)[a,b]	DUPIXENT® 300 mg Q2W (n=457)	Placebo (n=460)	DUPIXENT 300 mg Q2W + TCS (n=106)	Placebo + TCS (n=315)	DUPIXENT 200/300 mg Q2W (n=82)	Placebo (n=85)	DUPIXENT 300 mg Q4W + TCS (n=61)	Placebo + TCS (n=61)	DUPIXENT 200 mg Q2W + TCS (n=59)	Placebo + TCS (n=62)
Primary: IGA 0 or 1[c] (%)	37*	9	39*	12	24**	2	30	13	39	10
Secondary: EASI-75 (%)	48*	13	69*	23	42**	8	75	28	75	26
Secondary: Peak pruritus NRS[d] (%)	38*,[e]	11[e]	59*,[f]	20[f]	37**	5	54	12	61	13

*P<.0001 vs placebo; **P<.001.

[a] In the primary analyses of the efficacy endpoints, subjects who received rescue treatment or with missing data were considered nonresponders.

[b] All analyses were performed in the full analysis set (FAS), which includes all randomized subjects.

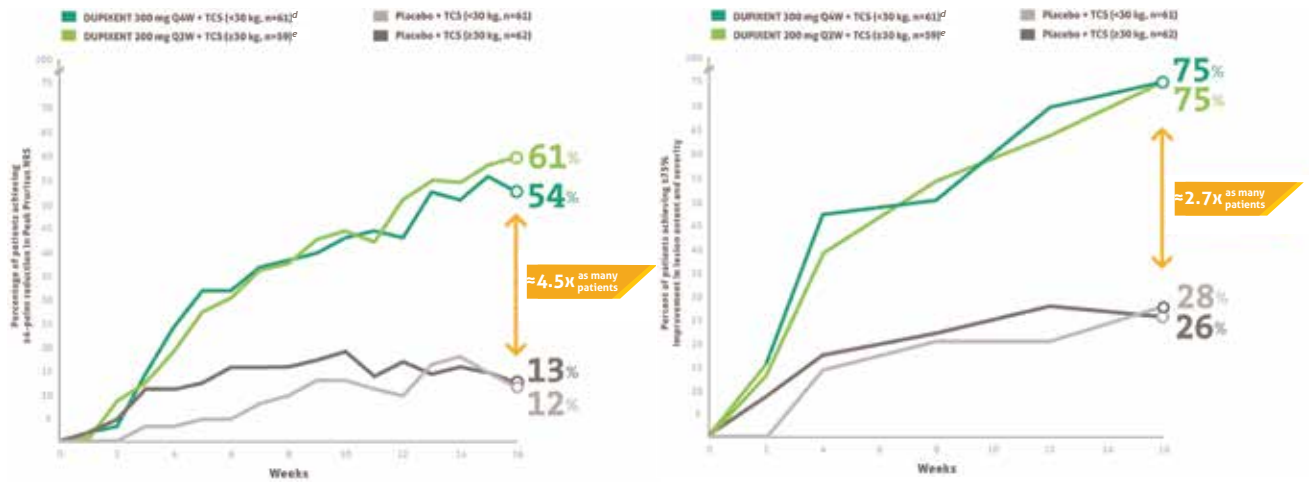
[c] Responder was defined as a subject with IGA 0 or 1 ("clear" or "almost clear") with a reduction of ≥2 points on a 0-4 IGA scale.

[d] ≥4-point improvement.

[e] Data analyses reflect patients with baseline peak pruritus NRS ≥4, DUPIXENT (n=438) and placebo (n=433).

[f] Data analyses reflect patients with baseline peak pruritus NRS ≥4, DUPIXENT + TCS (n=102) and placebo + TCS (n=299).

FIGURE 2. Time Course of Improvements in Itch and Lesion Extent and Severity in Children[25,27]



Left: Percentage of children achieving a ≥4-point improvement in Peak Pruritus NRS (secondary endpoint)[a-e]

Right: Percentage of children achieving EASI-75 (secondary endpoint)[a,b,d,e]

[a] Patients who received rescue treatment or with missing data were considered nonresponders.

[b] All analyses were performed in the full analysis set (FAS), which includes all randomized patients.

[c] Itch was assessed as a weekly average of peak daily pruritus NRS scores (range, 0-10); scores were collected daily, and a weekly average was calculated.

[d] At Day 1, patients (baseline weight <30 kg) received 600 mg of DUPIXENT.

[e] At Day 1, patients (baseline weight ≥30 kg) received 400 mg of DUPIXENT.

Post hoc analyses revealed that some adult and adolescent patients who did not achieve the primary endpoint (i.e., IGA 0 or 1 at Week 16 with at least a 2-point improvement from baseline) had changes in other validated measures (**Table 6**).[33,34]

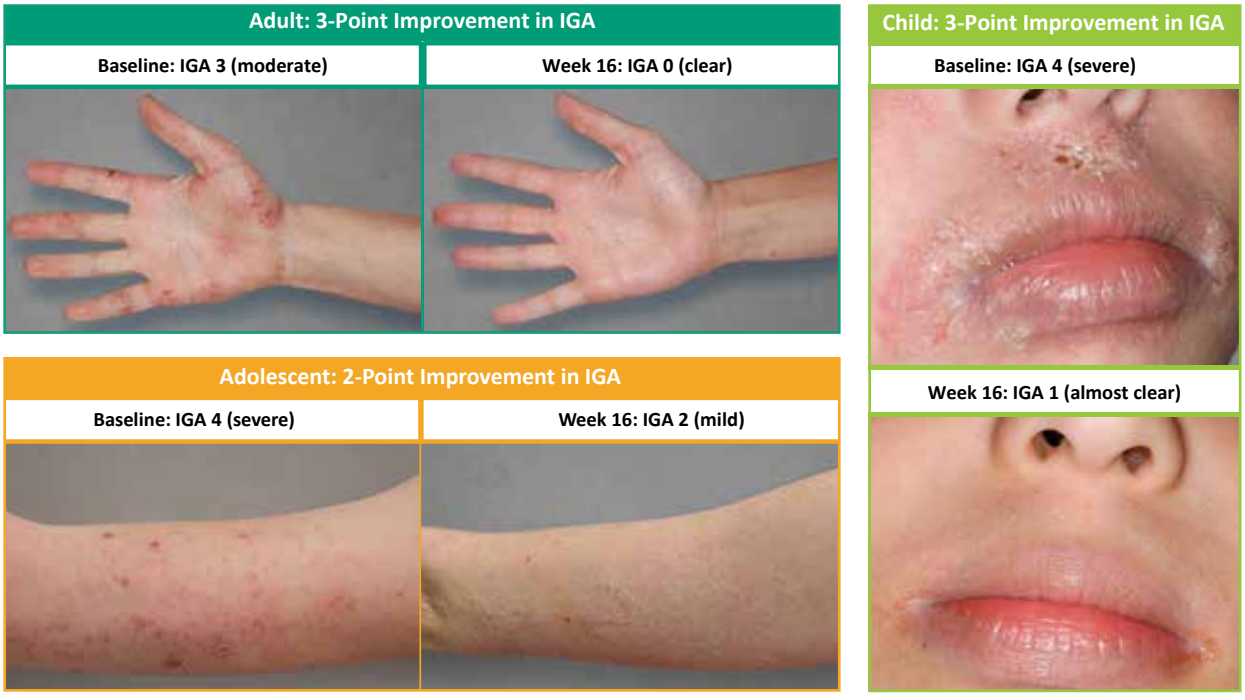
TABLE 6. Post Hoc Analysis of Adult and Adolescent Patients Not Achieving the Primary Endpoint[29,33,34]

Adult Patients Not Achieving the Primary Endpoint			Adolescent Patients Not Achieving the Primary Endpoint		
Endpoint	**DUPIXENT® (dupilumab)**	**Placebo**	**Endpoint**	**DUPIXENT (dupilumab)**	**Placebo**
Mean percent change (LSM) in Peak Pruritus NRS from baseline	35%	9%	Percentage of patients with ≥4-point improvement in Peak Pruritus NRS	34%	4%
Percentage of patients achieving EASI-75	21%	5%	Percentage of patients achieving EASI-75	23%	6%
Mean percent change (LSM) in EASI from baseline	49%	11%	Mean percent change (LSM) in EASI from baseline	55%	21%

Limitations of analysis: The analysis was imbalanced, as there were more patients not achieving the primary endpoint in the placebo group vs the DUPIXENT groups. No adjustments were made for multiple comparisons; therefore, no definite conclusions may be drawn. Two imputation methods were implemented: (1) post-baseline last observation carried forward (LOCF), with consideration of last value prior to rescue medication (data shown above), and (2) observed values, disregarding use of rescue medication. In analyses of adolescent patients, continuous outcomes were analyzed using multiple imputation and analysis of covariance with treatment, with randomization strata and relevant baseline values included in the model.

FIGURE 3. Visible Results in Adults, Adolescents, and Children

The adult was an actual patient treated with DUPIXENT, not a clinical trial patient, and scoring was designated by the treating physician. Because the adult was a real-world patient, other factors may have influenced the treatment results. The adolescent was an actual 12-year-old patient in the phase 3 adolescent DUPIXENT trial. The patient had a baseline IGA of 4 and EASI of 31. The child was an actual patient in a Phase 3 pediatric DUPIXENT trial (Trial 8). The patient was prescribed concomitant TCS based on the clinical trial program. Individual results may vary.



In the adolescent trial, a clinical responder was defined as a patient achieving IGA 0 or 1 and a ≥2-point improvement from baseline. The adolescent patient did not meet the primary endpoint in the clinical trials based on IGA score at Week 16. In the trial enrolling children (6-11 years), a responder was defined as a patient achieving IGA 0 or 1.

Long-Term Safety Profile Across All Age Groups Studied

The most common adverse reactions, occurring in ≥1% of adult patients through Week 16, are shown in **Table 7**. The safety profile in children and adolescents through Week 16 was similar to that in adults with AD. In addition, the 52-week safety profile of DUPIXENT + TCS in adults was generally consistent with the Week 16 adult safety profile. In children and adolescents, as observed in an open-label extension study, the safety profile of DUPIXENT through Week 52 was consistent with that seen in adults with AD.[25]

Q: How do you consider the long-term safety profile with adults, adolescents, and children?

Dr. Abramovits: It is very important. When patients ask questions regarding the time course of symptom resolution with DUPIXENT and length of treatment, I review the chronicity of AD and how DUPIXENT's long-term safety

TABLE 7. Adverse Reactions Occurring in ≥1% of Adult Patients Through Week 16[25]

Adverse Reaction	Adult Monotherapy[a]		Adult Concomitant TCS[b]	
	DUPIXENT[c] (N=529) n (%)	Placebo (N=517) n (%)	DUPIXENT[c] + TCS (N=110) n (%)	Placebo + TCS (N=315) n (%)
Injection-site reactions	51 (10%)	28 (5%)	11 (10%)	18 (6%)
Conjunctivitis[d]	51 (10%)	12 (2%)	10 (9%)	15 (5%)
Blepharitis	2 (<1%)	1 (<1%)	5 (5%)	2 (1%)
Oral herpes	20 (4%)	8 (2%)	3 (3%)	5 (2%)
Keratitis[e]	1 (<1%)	0%	4 (4%)	0%
Eye pruritus	3 (1%)	1 (<1%)	2 (2%)	2 (1%)
Other herpes simplex virus infection[f]	10 (2%)	6 (1%)	1 (1%)	1 (<1%)
Dry eye	1 (<1%)	0%	2 (2%)	1 (<1%)

[a] Pooled analysis of SOLO 1, SOLO 2, and a Phase 2 dose-ranging study.
[b] Analysis of CHRONOS, in which patients were on background TCS therapy.
[c] DUPIXENT 600 mg at week 0, followed by 300 mg every 2 weeks.
[d] Conjunctivitis cluster includes conjunctivitis, allergic conjunctivitis, bacterial conjunctivitis, viral conjunctivitis, giant papillary conjunctivitis, eye irritation, and eye inflammation.
[e] Keratitis cluster includes keratitis, ulcerative keratitis, allergic keratitis, atopic keratoconjunctivitis, and ophthalmic herpes simplex.
[f] Other herpes simplex virus infection cluster includes herpes simplex, genital herpes, herpes simplex otitis externa, and herpes virus infection, but excludes eczema herpeticum.

profile plays a role in whether I make an individualized recommendation for that patient. We take it one step at a time, and I reevaluate the patients periodically.

Dr. Oquendo: I agree. Long-term safety data helps support the understanding around the existing safety profile of a drug, and I discuss the long-term safety profile of DUPIXENT with parents.

Additional Information

In the clinical trials in adults, adolescents, and children, numerically fewer patients treated with DUPIXENT developed skin infections vs those treated with the comparator.

- Fewer adults (18+ years of age) treated with DUPIXENT 300 mg Q2W + TCS developed adjudicated skin infections compared with placebo + TCS (11% vs 18%) through 52 weeks in CHRONOS.[26]
- Fewer adolescents (12-17 years of age) treated with DUPIXENT 300/200 mg Q2W developed adjudicated skin infections compared with placebo in the adolescent clinical trial (11% vs 20%).[29]
- Fewer children (6-11 years of age) treated with DUPIXENT + TCS developed adjudicated skin infections compared with placebo + TCS in patients <30 kg, receiving 300 mg Q4W + TCS (7% vs 13%) and ≥30 kg, receiving 200 mg Q2W + TCS (9% vs 13%).[27]

DUPIXENT did not affect responses to non-live vaccines that have been studied. In a trial enrolling adults and investigating immune responses to vaccination, antibody responses to both tetanus vaccine and meningococcal polysaccharide vaccine were similar in DUPIXENT-treated and placebo-treated subjects.[25,35]

Important Safety Information (con't)[25]

DRUG INTERACTIONS: Avoid use of live vaccines in patients treated with DUPIXENT.

USE IN SPECIFIC POPULATIONS

- **Pregnancy:** There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to DUPIXENT during pregnancy. Healthcare providers and patients may call 1-877-311-8972 or go to https://mothertobaby.org/ongoing-study/dupixent/ to enroll in or obtain information about the registry. Available data from case reports and case series with DUPIXENT use in pregnant women have not identified a drug-associated risk of major birth defects, miscarriage or adverse maternal or fetal outcomes. Human IgG antibodies are known to cross the placental barrier; therefore, DUPIXENT may be transmitted from the mother to the developing fetus.
- **Lactation:** There are no data on the presence of DUPIXENT in human milk, the effects on the breastfed infant, or the effects on milk production. Maternal IgG is known to be present in human milk. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for DUPIXENT and any potential adverse effects on the breastfed child from DUPIXENT or from the underlying maternal condition.

Please see accompanying Full Prescribing Information

Weight-Tiered Dosing in Patients 6-17 Years of Age

DUPIXENT is administered by subcutaneous injection, either by pre-filled syringe for patients 6 years and older, or pre-filled pen for patients 12 years and older, and can be used with or without topical corticosteroids.

DUPIXENT is intended for use under the guidance of a healthcare provider.

A patient may self-inject DUPIXENT after training in subcutaneous injection technique using the pre-filled syringe or pre-filled pen. In adolescents 12 years of age and older, it is recommended that DUPIXENT be given by or under the supervision of an adult. DUPIXENT pre-filled syringe should be given by a caregiver in children 6-11 years of age.

The recommended dosing is shown in **Figure 4**.[25]

Q: How do you address concerns of patients and caregivers about injections or treatment with a biologic?

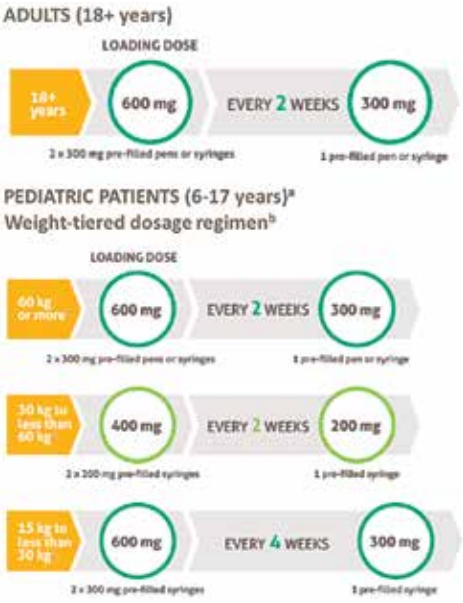
Dr. Abramovits: You focus patients on the reduction of symptoms they may see vs the fact that it's an injection.

Dr. Oquendo: Patients always ask, "Is there a non-injectable treatment? Can you prescribe an oral medication?" We do discuss options. Although every patient is different, I share patient stories as examples to help guide other patients.

Summary

- The burden of AD extends beyond visible signs and symptoms and affects caregivers as well as patients; AD is unpredictable and is associated with high disease burden for both patients and caregivers.
- Because AD is a chronic, relapsing, systemic inflammatory disease, it may require continuous, long-term management in moderate-to-severe cases. In addition, AD management may include referral to a specialist for appropriate patients.
- DUPIXENT helps repair the skin by specifically targeting a source of underlying inflammation in AD. DUPIXENT is not an immunosuppressant or a steroid treatment, and it has no requirement for initial lab testing or ongoing lab monitoring, according to the Prescribing Information.
- Disease control was observed across all ages (6+ years and up), with itch reduction and skin clearance at Week 16 with DUPIXENT vs the comparator (monotherapy trials in adults and adolescents were DUPIXENT vs placebo, and combination trials in adults and children were DUPIXENT + TCS vs placebo + TCS).
- DUPIXENT has a long-term safety profile demonstrated across 52 weeks.
- The most common adverse reactions (incidence ≥1% at Week 16) in adult patients with atopic dermatitis are injection site reactions, conjunctivitis, blepharitis, oral herpes, keratitis, eye pruritus, other herpes simplex virus infection, and dry eye.

FIGURE 4. Recommended Dosing of DUPIXENT (dupilumab)[25]



[a] The DUPIXENT 300 mg Pre-filled Pen is approved for patients aged 12+ years.
[b] 132 lb is equal to 60 kg; 66 lb is equal to 30 kg; 33 lb is equal to 15 kg.

Please see full Prescribing Information accompanying this supplement.

For more information about DUPIXENT, visit DUPIXENT.com

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