Lebrikizumab Improves **Atopic Dermatitis and Quality of Life in Patients** With Moderate-to-Severe **Atopic Dermatitis Previously Treated With Dupilumab: Results From the ADapt Trial**

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OBJECTIVES

- In real-world settings, approximately 18-20% of patients with moderate-to-severe AD discontinue dupilumab within 3-4 years of treatment, and the primary reasons are loss of efficacy (26-40%), AEs (20%), and cost issues and insurance coverage (18%)^{1,2}
- The open-label, Phase 3b, 24-week ADapt trial (NCT05369403) aims to assess the efficacy and safety of lebrikizumab in patients previously exposed to dupilumab
- Other clinical questions include:
 - How are patients with inadequate response to dupilumab likely to respond to lebrikizumab?
 - Are patients who stopped dupilumab because of an AE likely to experience the same AE with lebrikizumab?
- This analysis reports the efficacy and safety of lebrikizumab following 24 weeks of treatment in patients with moderate-to-severe AD previously treated with dupilumab in the ADapt trial

CONCLUSIONS

- Lebrikizumab provides meaningful improvements in skin (including face and hand) clearance, itch, and QoL in patients with moderate-to-severe AD who were previously treated with dupilumab
- The ADapt safety profile is consistent with other lebrikizumab phase 3 trials³⁻⁶

How Efficacious Is Lebrikizumab in Patients Previously Exposed to Dupilumab?



Notes: NRI/MI analyses are based on all N=86 patients at each timepoint and were performed for Week 0 to Week 24 after pooling together the LEBRI 250 mg Q2W and Q4W arms Patients who discontinued treatment due to lack of efficacy were imputed as non-responders; all other missing data were imputed using MI

How Are Patients With Inadequate Response to Dupilumab Likely to Respond to Lebrikizumab?





*Dupilumab inadequate response subgroup (n/Nx): 2/3 had no response to dupilumab; 7/21 had partial response to dupilumab; and 7/11 lost response to dupilumab

Notes: 61 patients had observed data at Week 0 and Week 16 and were included in this subgroup analysis. Data inside the bars are n/Nx. Reasons fo dupilumab discontinuation were patient-reported. The inadequate response group consists of patients who discontinued dupilumab due to no response to eatment, defined as having a peak response for skin and itch that did not improve at all and/or improved less than 25%; partial response to treatment, defined as having a peak response for skin and itch that only improved partially and/or improved between 25% and 50%; or lost response to treatment lefined as "initially responded but lost response to dupilumab" with respect to skin and/or itch. Other reasons included being unable to afford treatment nealth insurance changes, and previous open-label clinical trial participation that completed with no discontinuation for AEs. Due to the small sample size of all subgroups, no conclusions can be drawn from these analyses.

Study Design



^aPatients received LD of 500 mg given SC at Week 0 and Week 2; ^bScreening window was up to 30 days. Notes: The use of low- and/or mid-potency TCS. TCIs, topical PDE-4 inhibitors, or high-potency TCS up to 10 days was permitted. Patients requiring rescue therapy (high-potency TCS >10 days, topical JAK inhibitors, phototherapy, systemic medication) were discontinued from the study.

Results

Lebrikizumab Improved QoL and Symptoms of Itch Through Week 24

- Of dupilumab-experienced patients with baseline DLQI ≥4 (N=77), 83% (as observed) achieved \geq 4-point improvement in DLQI from baseline at Weeks 16 and 24 (NRI/MI, 81% and 80%, respectively)
- Of dupilumab-experienced patients with baseline Pruritus NRS \geq 4 (N=62), 53% and 62% (as observed) achieved ≥4-point improvement in Pruritus NRS from baseline at Week 16 and 24 (NRI/MI, 49% and 48%), respectively

Notes: NRI/MI analyses are based on all N=77 or N=62 patients at each timepoint and were performed for Week 0 to Week 24 after pooling together the LEBRI 250 mg Q2W and Q4W arms. Patients who discontinued treatment due to lack of efficacy were imputed as non-responders; all other missing data were imputed using MI.

These results are similar to Phase 3 monotherapy trials of lebrikizumab in patients with moderate to-severe AD without prior dupilumab exposure: * The EASI 75

response rate at Week 16 using pooled ADvocate 1 & 2 data was 55.4%4,b



Notes: NRI/MI analyses are based on all N=69 patients at each timepoint and were performed for Week 0 to Week 24 after pooling

together the LEBRI 250 mg Q2W and Q4W arms. Patients who discontinued treatment due to lack of efficacy were imputed as

Achievement of EASI 75 at Week 16 by **Reason for Prior Dupilumab Discontinuation**

In a Patient Who Discontinued Dupilumab Due to Loss of Response, Lebrikizumab Shows Improvement in Facial Atopic Dermatitis

aITT population with baseline F-IGA ≥2; bAs observed

non-responders; all other missing data were imputed using MI.



Lebrikizumab Improved Hand Dermatitis Through Week 24

In dupilumab-experienced patients with moderate-to-severe hand dermatitis at baseline (N=41), defined by mTLSS \geq 12, mTLSS decreased by an average of 69% (as observed; NRI/MI, 64%) at Week 16 and by 75% (as observed; NRI/MI, 68%) at Week 24

Notes: NRI/MI analyses are based on all N=41 patients at each timepoint and were performed for Week 0 to Week 24 after pooling together the LEBRI 250 mg Q2W and Q4W arms. Patients who discontinued treatment due to lack of efficacy were imputed as non-responders; all other missing data were imputed using M

Baseline Demographics and Disease Characteristics

Safety Follow-up _EBRI 250 ma Q4W .EBRI 250 r Q2W 2 weeks afte last dose Week 24 Week 34

		Reason for Dupilumab Discontinuation ^a		
Characteristic	All LEBRI (N=86)	Inadequate Response (N=48)	Intolerance or AE (N=14)	Other Reason (N=24)
Age, years	46.4 (20.0)	43.0 (20.8)	53.1 (15.8)	49.1 (20.0)
Adult (≥18 years), n (%)	77 (89.5)	40 (83.3)	14 (100.0)	23 (95.8)
Adolescent (≥12 to <18 years), n (%)	9 (10.5)	8 (16.7)	0	1 (4.2)
Female, n (%)	41 (47.7)	21 (43.8)	7 (50.0)	13 (54.2)
BMI, kg/m ²	27.9 (6.0)	27.2 (5.5)	29.3 (6.7)	28.7 (6.7)
Age at AD onset, years	26.6 (25.9)	22.3 (25.2)	27.4 (25.4)	34.7 (26.6)
Duration since AD onset, years	20.2 (19.9)	21.1 (20.8)	26.2 (21.6)	14.8 (16.2)
IGA, n (%)				
3 (Moderate)	65 (75.6)	33 (68.8)	13 (92.9)	19 (79.2)
4 (Severe)	21 (24.4)	15 (31.3)	1 (7.1)	5 (20.8)
F-IGA, n (%)				
2 (Mild)	21 (24.4)	15 (31.3)	2 (14.3)	4 (16.7)
3 (Moderate)	40 (46.5)	25 (52.1)	6 (42.9)	9 (37.5)
4 (Severe)	8 (9.3)	3 (6.3)	3 (21.4)	2 (8.3)
Pruritus NRS	6.6 (2.4)	6.5 (2.5)	7.0 (2.4)	6.6 (2.2)
≥4, n (%)	62 (87.3)	32 (84.2)	11 (91.7)	19 (90.5)
EASI	24.1 (10.7)	25.8 (12.2)	20.2 (4.3)	22.8 (9.6)
BSA % affected	32.2 (18.5)	35.3 (19.9)	24.8 (11.5)	30.3 (17.7)
DLQI ^b	14.4 (7.0)	15.1 (6.9)	15.4 (7.2)	12.7 (6.8)
mTLSS ^c	10.0 (5.0)	10.4 (5.0)	9.0 (4.4)	9.8 (5.3)
Number of prior systemic treatments, ^d n (%)				
1	50 (58.1)	27 (56.2)	6 (42.9)	17 (70.8)
2	22 (25.6)	13 (27.1)	4 (28.6)	5 (10.8)
≥3	14 (16.3)	8 (16.7)	4 (28.6)	2 (8.3)

^aReasons for dupilumab discontinuation were patient-reported. The dupilumab inadequate response subgroup consists of patients who discontinued dupilumab due to no response to treatment, defined as having a peak response for skin and itch that did not improve at all and/or improved less than 25%; partial response to treatment, defined as having a peak response for skin and itch that only improved partially and/or improved between 25% and 50%; or lost response to treatment, defined as "initially responded but lost response to dupilumab" with respect to skin and/or itch. Other reasons included being unable to afford treatment, health insurance changes, previous open-label clinical trial participation that completed with no discontinuation for adverse events; ^bPatients <16 years of age at baseline completed the cDLQI and continued to complete the cDLQI for the duration of the study; c41 patients in the all lebrikizumab cohort had mTLSS ≥12, and the mean (SD) score among these patients was 14.0 (2.0); ^d1=dupilumab only, 2=dupilumab and 1 other prior systemic treatment, 3=dupilumab and ≥2 other prior systemic treatments

Notes: Data are mean (SD) unless stated otherwise. Number of patients with non-missing data was used as the denominato

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AEs^a Through Week 24

	Pooled LEBRI 250 mg Q2W and Q4W (N=86)	EASI=Eczema Area and Severity Index; EASI 75=275% improvement from baseline in EASI; F-IGA=Face-IGA; It response of clear or almost clear; ITT=intent-to-treat; JAK=Janus kinase; LD=loading dose; LEBRI=lebrikizumab; MI=multiple imputation; NMSC=non-melanoma skin cancer; NRI=non-responder imputation; NRS=Numeric Ratir PDE-d=phosphotelisterase-4; Q2W=every 2 weeks; QdW=every 4 weeks; CoL=quality of life; SAE=serious adve TCI=topical calcineurin inhibitor; TCS=topical corticosteroids; TEAE=treatment-emergent adverse event; W=Wee	
TEAE ^b	46 (53.5)	Disclosures: J. Silverberg has received grants and/or personal fees from: AbbVie, AFYX Therapeutics, Arena F Boehninger Ingelheim, Celgene, Dermavant, Dermira, Eli Lilly and Company, Galderma, GlaxoSmithKline, Incyte	
Mild	26 (30.2)	Pharma, Menio Therapeutics, Novartis, Pfizer, RAPT Therapeutics, Regeneron, and Sanofi; L. Ackerman has re and/or speaker and served as an investigator for: AbbVie, Amgen, Apollo Therapeutics, argenx, AstraZeneca, Bi Characteria, Conference, Octavita, Contracteria,	
Moderate	17 (19.8)	Therapeutics, Kyowa Kirin, LEO Pharma, Lilly ICOS, Mindera, Novartis, Regeneron, Replimune, Sanofi, Sun Pha and UCB Pharma; J. Bagel has received research funds payable to the Psoriasis Treatment Center of New Jerse	
Severe	3 (3.5)	Brickell Biotech, Bristol Myers Squibb, Celgene, Corrona, Dermavant, Dermira, Eli Lilly and Company, Janssen, H Mindera, Novartis, Pfizer, Regeneron, Sanofi, Sun Pharma, TARGET PharmaSolutions, Taro Pharmaceutical Ind	
SAE	2 (2.3)	has received consultant fees or speaker fees from: AbbVie, Amgen, Arcutis, Bristol Myers Squibb, Dermavant, El Novartis, and UCB Pharma; L. Stein Gold is an investigator, consultant and/or speaker for: AbbVie, Amgen, Arcu	
Death	0	Galderma, Incyte Corporation, Janssen, Novartis, Ortho Dermatologics, Prizer, Regeneron, Sanofi, and UCB I honoraria, and/or served as a clinical study investigator for: Abb/vie, Abcentra, ACELYRIN, Aclaris Therapeutic Alumic Angeo, Aparturella, Apageo, Encargantiza, Carrieria, Angeo, Bharmacouticale, ASIAN, Bharmacouticale, Asi	
AE leading to treatment discontinuation ^c	5 (5.8)	Myers Squibb, Cara Therapeutics, Concert Pharmaceuticals, CTI BioPharma, Dermavant, EcoR1 Capital, Eli Lilly Biosciences, Evormune, Forte Biosciences, Galderma, HighlightII Pharma, Incyte Corporation, Innovent Bio, Jan	
TEAE within special safety topics		Microbion Biosciences, Merck, Monte Rosa Therapeutics, Nektar, Novartis, Overtone Therapeutics, Paragon The Therapeutics, Regeneron, Sanofi, Sanofi Genzyme, Spherix Global Insights, Sun Pharma, Takeda, TLL Pharmac	
Infections	19 (22.1)	Ventyx Biosciences, Vibliome Therapeutics, and Xencor; D. Rosmarin has received honoraria as a consultant, re a speaker for: AbbVie, Abcuro, AltruBio, Amgen, Arena Pharmaceuticals, Boehringer Ingelheim, Bristol Myers Sq	
Skin infections	1 (1.2)	Dermavant, Dermira, Eli Lilly and Company, Galderma, Incyte Corporation, Janssen, Kyowa Kirin, Merck, Nektar, Regeneron, Revolo Biotherapeutics, Sanofi, Sun Pharma, UCB Pharma, Viela Bio, and Zura Bio; R. Chovatiya h invarienter for Abblic Acapean Discrementian Acretic Acrean Discrementiale, acrean Act AN Discrementiale	
Potential hypersensitivity ^d	5 (5.8)	Cara Therapeutics, Dermavant, Eli Lilly and Company, EPI Health, Incyte Corporation, LEO Pharma, L'Oréal, Na UCB Pharma, and as a sneaker for: AbbVie. Arcuits, Dermavant Eli Illy and Company, EPI Health, Incyte Corp	
Dermatitis atopic	4 (4.7)	Pharma; M. Zirwas has served as a consultant, investigator, and/or speaker for: AbbVie, Acrotech Biopharma, A clear, Amoen, AnaptysBio, Apogee Therapeutics, Arcutis, Bausch + Lomb, Biocon, Bristol Myers Squibb, Cara T	
Urticaria	1 (1.2)	Dermavant, Edesa Biotech, Elli Lilly and Company, Evelo Biosciences, Galderma, Genentech, Incyte Corporation Nimbus Therapeutics, Novan, Novartis, Pfizer, Sanofi Regeneron, Trevi Therapeutics, UCB Pharma, Verrica Pha	
Injection site reactions ^e	4 (4.7)	conducted clinical trials for or received research funds and/or honoraria for serving on the scientific advisory boar Pharmaceuticals, Galderma, Kiniksa Pharmaceuticals, LEO Pharma, Novartis, Pfizer, Regeneron, and Sanofi; J.	
Conjunctivitis cluster ^f	3 (3.5)	and/or on scientific advisory boards for: Allergan, Amgen, argenx, BellaMia Technologies, Bristol Myers Squibb, (Company, Emblation, Galderma, Horizon Therapeutics, Janssen/Johnson & Johnson, Lumenis, Neuronetics, Pfiz Shapehei Biotecame, and Det Wise Bitterady: and is a resister of activity for Americke Medical Victoreau	
Malignancies	1 (1.2)	disease state management talks for: UCB Pharma; has served on advisory boards for: Eli Lilly and Company, LE provided dematologic consulting services for: AbbVie and UpToDate: B. Lockshi n has received grants and/or re	
NMSC	1 (1.2)	Galderma, Incyte Corporation, Pfizer, Regeneron, and Sanofi; J. Weisman has been a speaker and/or investigat AbbVie, Amgen, Biogen, Boehringer Ingelheim, Celgene, Eli Lilly and Company, Janssen, LEO Pharma, Merck, I	
Malignancies excluding NMSC	0	Pharmaceuticals; A. Reck Atwater is a former employee of: Eli Lilly and Company; J. Proper, M. Silk, E. Pierce, M. J. Rueda, and S. Pillai are employees and shareholders of: Eli Lilly and Company; J. Zhong is an employee	
AD exacerbation	7 (8.1)	Advances in Cosmetic Medical Dermatology Hawaii, Amgen, AOBiome, Arcuits, Arena Pharmaceuticals, ASLAN Eli Lilly and Company, Evelo Biosciences, Excerpta Medica, FIDE, Forte Bio RX, Galderma, GlaxoSmithKline, Im	
Hepatic events	1 (1.2)	Recludix Pharma, Regeneron, Revolutionizing Atopic Dermattis, Mad Derma Medscape, Merck, Moh Holding, Mice Cap Recludix Pharma, Regeneron, Revolutionizing Atopic Dermatitis, Roivant Sciences, Sanofi Genzume, Trevi Therapeutics, Valeant	
Alanine aminotransferase increased	1 (1.2)	Pharmaceuticals, Vindico Medical Education, and WebMD; and has received grants or serves as principal investigator for: AbbVie,	
Aspartate aminotransferase increased	1 (1.2)	Acrotech Biopharma, Amgen, Arcutis, ASLAN Pharmaceuticals, Castle Biosciences, Corfivitas, Dermira, Dermavant, Eli Lilly and Company, Incyte Corporation, Kymab, Kyrwak Kirin, National, Jewish	
3 participants reported TF	EAEs of	Health, LEO Pharma, Pfizer, Regeneron, Sanofi, Target, and VenSkin. These potential conflicts of interest have been reviewed and managed by Oregon Health & Science University	

conjunctivitis, which were mild or moderate and did not lead to discontinuation

^aAssessed in patients who received ≥1 dose of LEBRI; ^bPatients with multiple events with different severity were counted under the highest severity; Determined to be due to dermatitis atopic. drug eruption, immune-mediated dermatitis, rash morbilliform, and neadache (n=1 each); dEvents that occurred on the day of drug administration ide using a narrow algorithm search; elnjection site reactions are defined using MedDRA igh-level term of injection site reactions excluding joint-related Preferred Terms; ^fDefined using the following MedDRA Preferred Terms: conjunctivitis, conjunctivitis allergic, conjunctivitis bacterial, conjunctivitis viral, and giant papillary conjunctivitis Note: Data are n (%).

Are Patients Who Stopped Dupilumab Because of an AE Likely to Experience the Same AE With Lebrikizumab?

Primary Intolerance or AE Leading to Prior Dupilumab Discontinuation



^aOther includes increased itching; weight gain and worsening of itch; hives, rash, pruritus, and swelling (n=1 each)

In the ADapt Trial

- Of the 10 patients who reported eye-related events, facial dermatitis, or inflammatory arthritis as the reason for prior dupilumab discontinuation, none reported similar events with lebrikizumab
- Of the 14 patients with prior dupilumab discontinuation due to AEs
 - 2 discontinued treatment with lebrikizumab due to an AE:
 - Dermatitis atopic, n=1
 - Immune-mediated rash, n=1

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A=Investigator's Global Assessment; IGA (0,1)= nTLSS=modified Total Lesion Symptom Score;

ed honoraria as an advisorv board member, consultar tera, Bristol Myers Squibb, Castle Biosciences, hcare, IgGenix, Incyte Corporation, Janssen, Kyme n: AbbVie, Amgen, Arcutis, Boehringer Ingelheir es. UCB Pharma, and Valeant Ph Bristol Myors Squibb Dormayant Eli Lilly and I a: A. Blauvelt has recei Affibody, Aligos Therapeutics, Allakos Therapeutics, Almirall thenex, Bluetin Biomedicine, Boehringer Ingelheim, Bristol ly and Company, Escient Pharmaceuticals, Evelo anssen, Landos Biopharma, LEO Pharma, Lipidio Pharma, erapeutics, Pfizer, Q32 Bio, Rani Therapeutics, RAPT icceutical, TrialSpark, UCB Pharma, UNION Therapeutics, received research support, conducted trials, and/or served as quibb, Celgene, Concert Pharmaceuticals, CSL Behring, r Novariis Pitzer RAPT Therapeutics, Recludix Pharma Novartis, Pfizer, RAPT Therapeutics, Recludix Pharma as served as an advisory board member, consultant, and/c Beiersdorf, Boehringer Ingelheim, Bristol Myers Squibb, tional Eczema Association, Pfizer, Regeneron, Sanofi, ar ation, LEO Pharma, Pfizer, Regeneron, Sanofi, and UCB avanced Derm Solutions, Aldevra Therapeutics, all® fre nerapeutics, Castle Biosciences, Concert Pharmaceutical Janssen, L'Oréal, LEO Pharma, Level Ex, LUUM, Me naceuticals, and WCG Trifecta; G. Yosipovitch has ds of: AbbVie, Arcutis, Eli Lilly and Company, Escier Vaibel has served as a consultant and/or investion andela Healthcare, Cytrellis Biosystems, Eli Lilly ar , Procter & Gamble, RegenX, Sanofi, SkinCeutica J. E. Murase is on the speaker's board for non-brand D Pharma, Sanofi Genzyme, and UCB Pharma; and search support from: AbbVie, Dermira, Franklin Bioscience , Novartis, Pfizer, Regeneron, Stiefel, and Valeant e, M. L. B. Pruzeti, S. Montmayeur, C. Schuster, e of: IQVIA; E. Simpson reports personal fees from: AbbVie, N Pharmaceuticals, Bristol Myers Squibb, CorEvitas, Dermire mpetus Healthcare, Incyte Corporation, Innovaderm Researc apital, Pfizer, Physicians World, Prime Pharmaceuticals,

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