Dupilumab Improves Signs and Symptoms in Adult Patients With Moderate-to-Severe Atopic Dermatitis and Severe Itch

Thomas Bieber[1,2], Brian S. Kim[3], Gil Yosipovitch[4], Melinda J. Gooderham[5,6], Wei Li[7], Yoko Kataoka[8], Amy H. Praestgaard[9], Drew Clearfield[10], João Costa[11]

[1]Christine Kühne – Center for Allergy Research and Education, Medicine Campus Davos, Davos, Switzerland; [2]Ludwig-Maximilian University, Munich, Germany; [3]Icahn School of Medicine at Mount Sinai, New York, NY, USA; [4]Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery and Miami Itch Center, University of Miami, Miami, FL, USA; [5]SKiN Centre for Dermatology, Peterborough, ON, Canada; [6]Queen's University, Kingston, ON, Canada; [7]Huashan Hospital, Fudan University, Shanghai, China; [8]Osaka Habikino Medical Center, Osaka, Japan; [9]Sanofi, Cambridge, MA, USA; [10]Regeneron Pharmaceuticals Inc., Tarrytown, NY, USA; [11]Sanofi, Porto Salvo, Portugal

Learning objective

To analyze the efficacy and safety of dupilumab for moderate-to-severe atopic dermatitis in patients with severe itch at baseline

Takeaway message

Dupilumab combined with topical corticosteroids provides rapid and long-term efficacy in patients with severe itch at baseline

Contact author: João Costa. Sanofi, Porto Salvo, Portugal; email: joao.costa@sanofi.com

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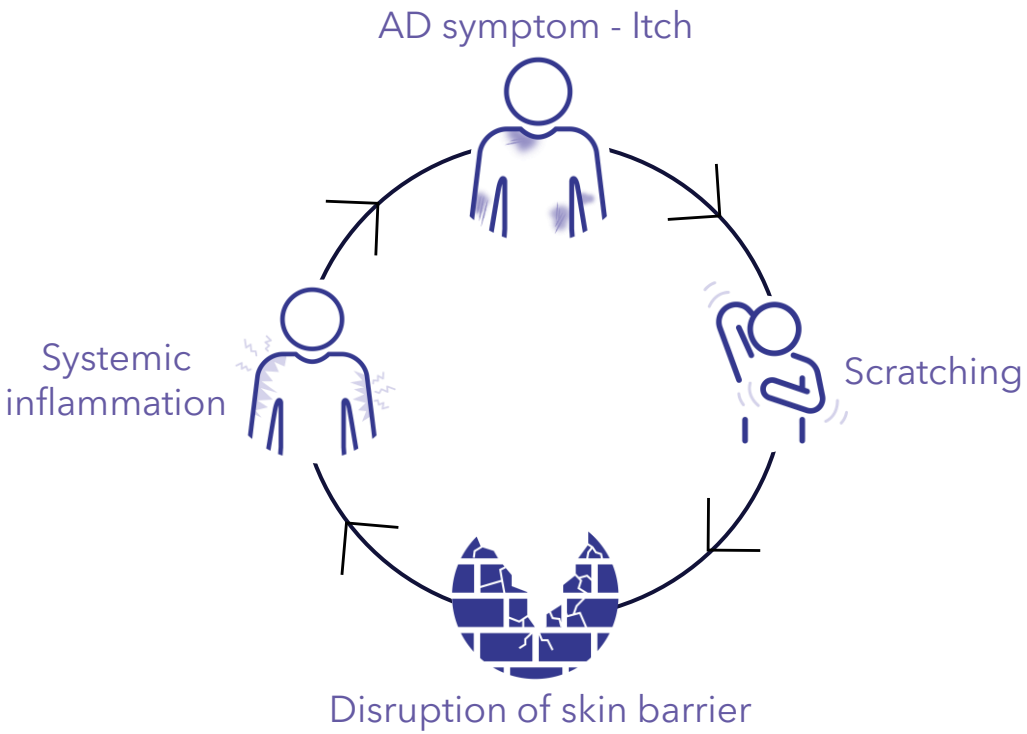
Background

Overview of the itch-scratch cycle[1]



Itch is commonly identified as the most burdensome symptom of AD, with severity associated with poor quality of life[1]

However, conventional topical and systemic immunosuppressant treatments may have limited efficacy in patients with severe itch[2]

1. Mack MR and Kim BS. Trends Immunol. 2018;39(12):980-91. 2. Kwatra SG. et al. Clin Trans Immunol. 2022;11:e1390.
AD, atopic dermatitis.

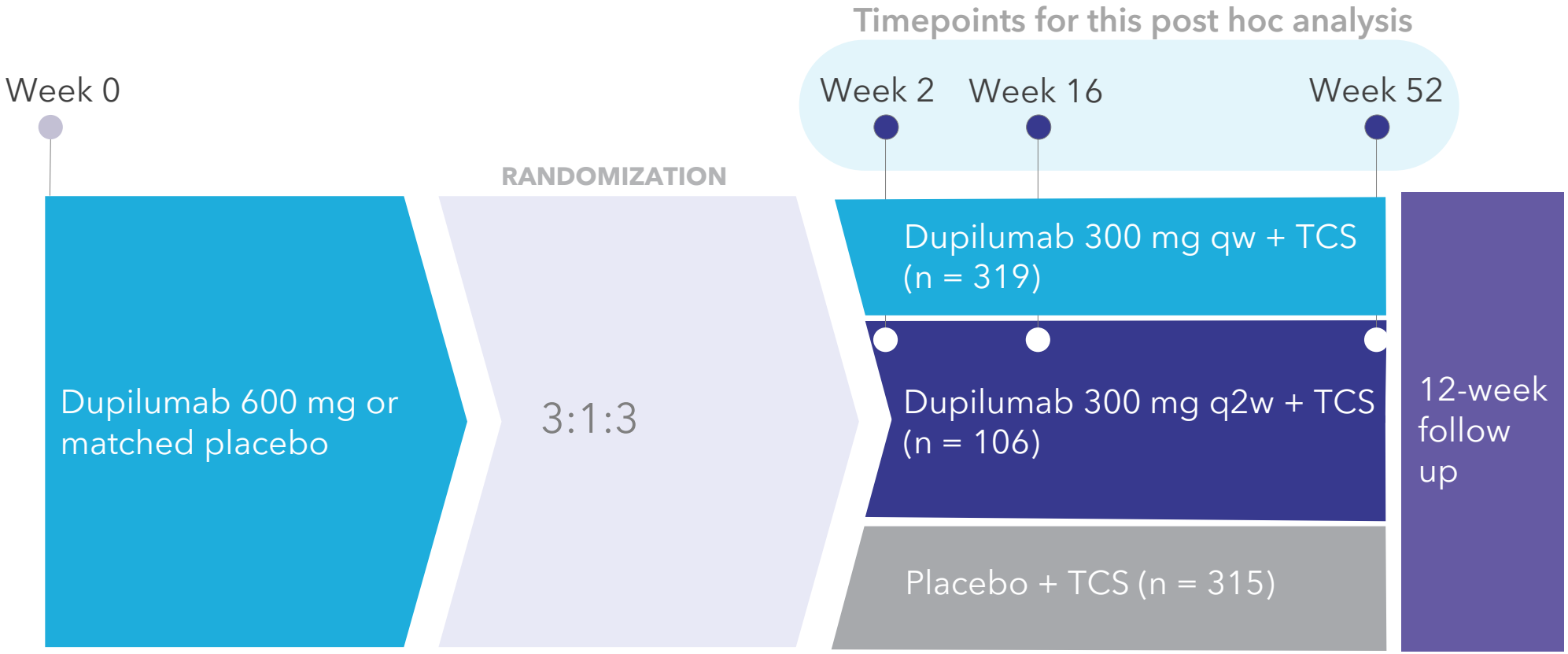
Objective

Objective

To analyze the **efficacy and safety of dupilumab** in adult patients with moderate-to-severe AD experiencing **severe itch at baseline**

Methods

Overview of the LIBERTY AD CHRONOS study[1]



- Post hoc analysis populations: patients with severe itch at baseline (PP-NRS score ≥7[2,3]) vs overall population in the dupilumab q2w + TCS and placebo + TCS arms

1. Blauvelt A. et al. Lancet. 2017;389:2287-303. 2. Vakharia PP. et al. Br J Dermatol. 2018;178:925-30. 3. Nattkemper LA. et al. J Invest Dermatol. 2018;138:1311-17.
PP-NRS, Peak Pruritus Numeric Rating Scale; TCS, topical corticosteroid(s); q2w, every 2 weeks; qw, every week.

Results

Baseline demographics and disease characteristics were similar in the severe itch and overall populations

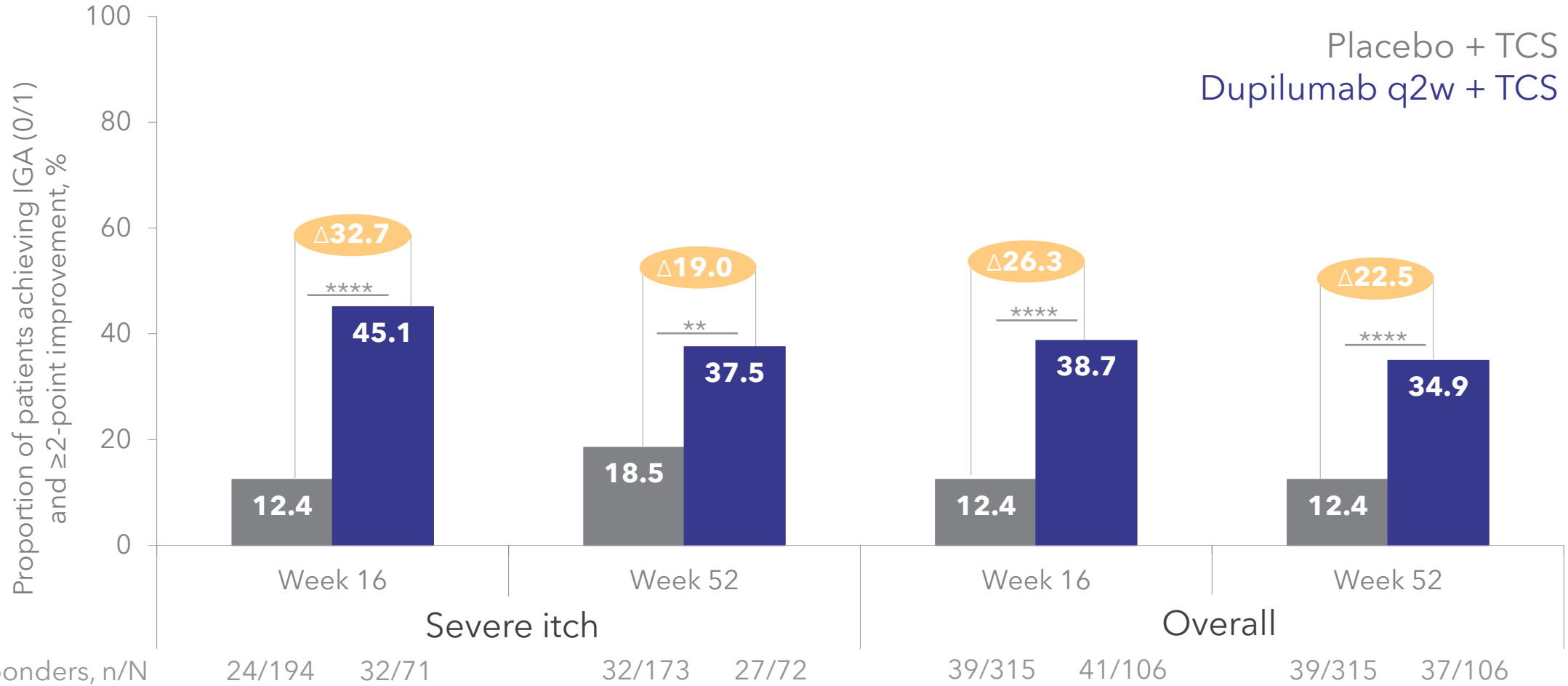
	Patients with severe itch at BL (PP-NRS ≥7)		Overall population	
	Placebo + TCS (n = 213)	Dupilumab 300 mg q2w + TCS (n = 77)	Placebo + TCS (n = 315)	Dupilumab 300 mg q2w + TCS (n = 106)
Baseline demographics				
Age, ≥18 to <40 years, n (%)	130 (61.0)	42 (54.5)	189 (60.0)	52 (49.1)
≥40 to <65 years, n (%)	75 (35.2)	30 (39.0)	117 (37.1)	49 (46.2)
Race, n (%)				
White	140 (65.7)	55 (71.4)	208 (66.0)	74 (69.8)
Black or African American	11 (5.2)	2 (2.6)	19 (6.0)	2 (1.9)
Asian	57 (26.8)	19 (24.7)	83 (26.3)	29 (27.4)
Other	5 (2.3)	1 (1.3)	5 (1.6)	1 (0.9)
Female, n (%)	83 (39.0)	33 (42.9)	122 (38.7)	44 (41.5)
Disease characteristics				
Duration of AD, mean (SD), years	28.1 (14.3)	29.3 (15.1)	27.5 (14.3)	30.1 (15.5)
EASI total score, mean (SD), range 0–72	34.8 (13.2)	35.4 (13.7)	32.6 (12.9)	33.6 (13.3)
PP-NRS score, mean (SD), range 0–10	8.4 (0.9)	8.2 (0.8)	7.3 (1.8)	7.4 (1.7)
POEM score, mean (SD), range 0–30	21.8 (5.1)	21.5 (5.2)	20.0 (6.0)[a]	20.3 (5.7)
IGA score = 4, n (%), range 0–4	111 (52.1)	42 (54.5)	147 (46.7)	53 (50.0)

[a]n = 314

BL, baseline; DLQI, Dermatology Life Quality Index; EASI, Eczema Area and Severity Index; IGA, Investigator's Global Assessment; POEM, Patient-Oriented Eczema Measure; SD, standard deviation.

Results

A greater proportion of patients receiving dupilumab achieved IGA (0/1) and IGA ≥2-point improvement in the severe itch and overall populations at Weeks 16 and 52, compared with placebo

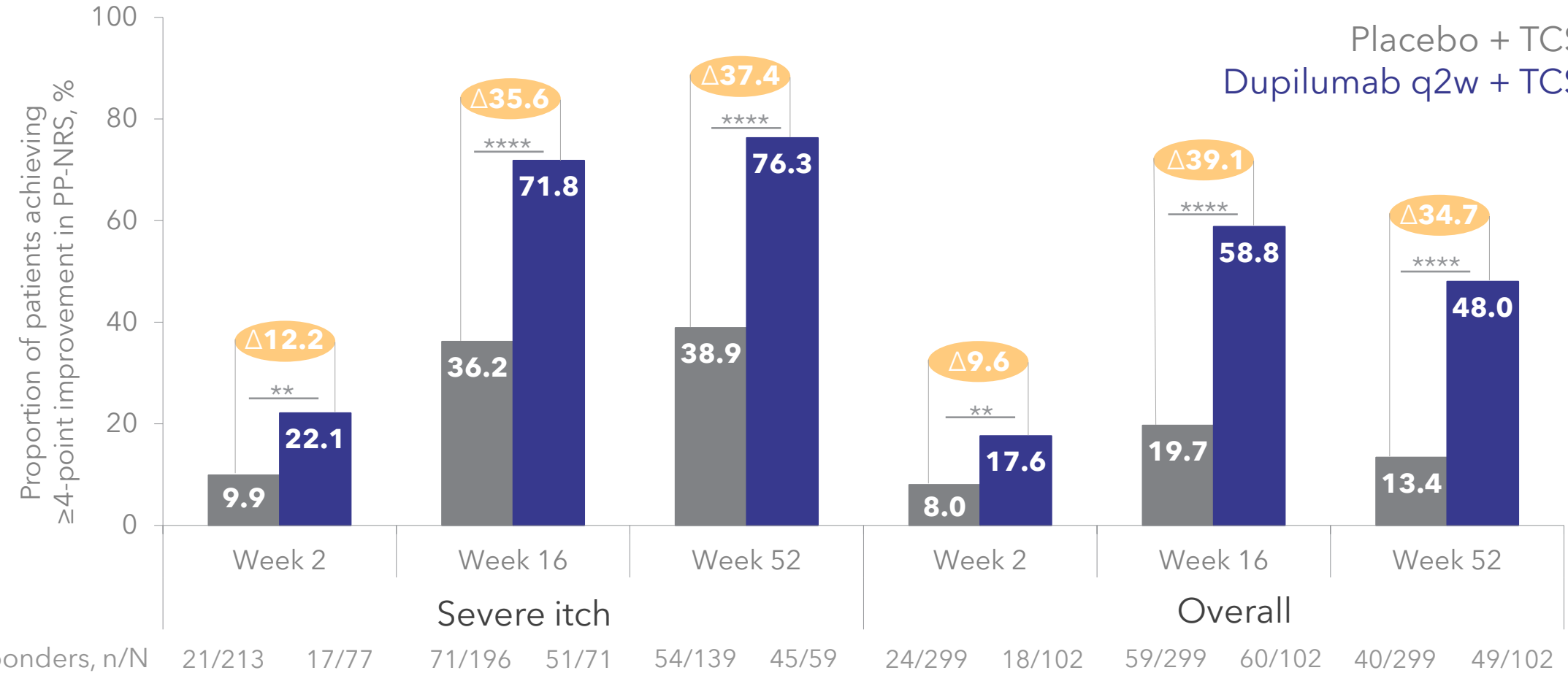


** $P < 0.01$; **** $P < 0.0001$

Missing data and values after first rescue treatment used were set to missing (censoring). *P* values were derived by Cochran-Mantel-Haenszel test stratified by region and baseline disease severity (IGA = 3 vs IGA = 4).

Results

A greater proportion of patients receiving dupilumab achieved a ≥4-point improvement in PP-NRS in the severe itch and overall populations at Weeks 16 and 52, with early improvements at Week 2, compared with placebo



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Missing data and values after first rescue treatment used were set to missing (censoring). *P* values were derived by Cochran-Mantel-Haenszel test stratified by region and baseline disease severity (IGA = 3 vs IGA = 4).

Safety

Safety data in the severe itch and overall populations were similar

	Patients with severe itch at BL (PP-NRS ≥7)		Overall population	
	Placebo + TCS (N = 213)	Dupilumab 300 mg q2w + TCS (N = 80)	Placebo + TCS (N = 315)	Dupilumab 300 mg q2w + TCS (N = 110)
TEAE, n (%)	184 (86.4)	71 (88.8)	266 (84.4)	97 (88.2)
Serious TEAE, n (%)	13 (6.1)	2 (2.5)	16 (5.1)	4 (3.6)
TEAE leading to study drug discontinuation, n (%)	24 (11.3)	2 (2.5)	24 (7.6)	2 (1.8)
Severe TEAE, n (%)	18 (8.5)	6 (7.5)	27 (8.6)	9 (8.2)
TEAE leading to death, n (%)	0	0	0	0

TEAE, treatment-emergent adverse event.

Conclusion

- At **Week 16**, patients in the severe itch and overall populations who were treated with **dupilumab + TCS** achieved **significantly greater improvements in AD signs** than patients treated with placebo+TCS, with **sustained response at Week 52**
- After the first dose, patients in the severe itch and overall populations who were treated with **dupilumab + TCS** achieved **greater improvements in itch scores** than patients treated with placebo + TCS
- **The proportion of adverse events** was similar in the severe itch and overall populations and was **consistent with the known safety profile of dupilumab**