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ORIGINAL RESEARCH

One-Year Insights into the GLOBOSTAD Multinational Prospective Observational Study of Patients Receiving Dupilumab for Atopic Dermatitis

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ABSTRACT

Introduction: Currently, limited data are available on long-term use of dupilumab to treat atopic dermatitis (AD) in a multinational real-world setting. The aim of this analysis was to report the interim 1-year data for patients with AD enrolled in the GLOBOSTAD registry, including treatment patterns, dupilumab effectiveness and safety, and healthcare burden.

Methods: GLOBOSTAD is an ongoing, 5-year, multinational, prospective, observational study of adult/adolescent (aged ≥ 12 years at baseline) patients with AD who initiated dupilumab in real-world settings according to their local country-specific prescribing guidelines. Outcomes were evaluated at baseline and at 3, 6 and 12 months and included Eczema Area and Severity Index (EASI) total score, SCORing Atopic Dermatitis (SCORAD) total score, percent body surface area (BSA) affected, Patient-Oriented Eczema Measure (POEM), Dermatology Life Quality Index (DLQI) total score for adults or Children's Dermatology Life Quality Index

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(CDLQI) total score for adolescents and pruritus Numeric Rating Scale (NRS) total score.
Results: At the interim 1-year cut-off (March 2023), 955 patients were enrolled in GLOBOSTAD, and follow-up data were obtained from 903 patients. After dupilumab initiation, mean improvements in effectiveness outcome measures from baseline to month 3 were EASI from 25.1 to 6.1, SCORAD 59.3 to 25.3, POEM 19.7 to 8.7, DLQI 13.7 to 5.3, CDLQI 12.2 to 2.7 and pruritus NRS 6.3 to 2.5, with each measure exceeding the minimal clinically important difference. These positive changes in effectiveness outcomes were maintained or further improved through 12 months since treatment initiation. AD-related hospitalizations and emergency room or urgent care facility visits decreased from 11.1% to 1.7% from baseline to month 12.
Conclusions: In a multinational real-world setting, dupilumab demonstrated rapid, robust and sustained effectiveness in patients with moderate-to-severe AD across multiple disease domains, including AD signs, symptoms, quality of life and emergency/urgent care visits. Safety was consistent with the known dupilumab safety profile.
Clinical Trial Registration: ClinicalTrials.gov Identifier NCT03992417.

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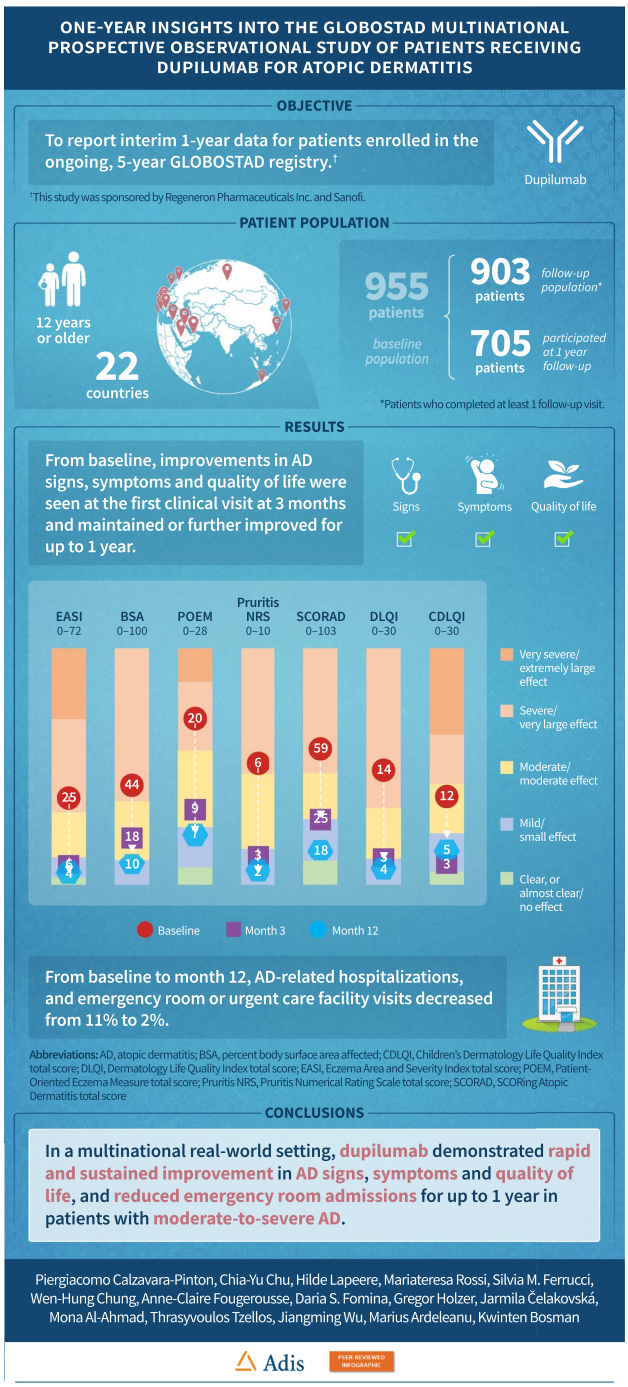
Graphical Abstract:



PLAIN LANGUAGE SUMMARY

Atopic dermatitis (AD) is a chronic relapsing skin disease that can have a negative effect on the quality of patients' lives. In clinical trials, when patients with AD were treated with a drug called dupilumab, there were improvements in their AD signs and symptoms and quality of life. More information is needed about how well dupilumab works when patients are prescribed the drug by their doctors in the real world over a long period. In total, almost 1000 adults and adolescents with AD joined a prospective observational study called GLOBOSTAD. GLOBOSTAD aims to follow them for up to 5 years after their first dupilumab treatment. This study looked at the effects of dupilumab in about 900 patients during their first year of treatment. At 3 months after starting dupilumab, there were improvements in each of the measures that show how effective a treatment is. These included measures that doctors use to judge how serious AD is. They also included measures that patients use to report how serious they feel their AD is and how AD affects their quality of life. After 1 year, those changes had either stayed or improved further. After 1 year, there was also an improvement in how often patients had to visit the hospital because of their AD. Safety was consistent with the known dupilumab safety information.

Keywords: Atopic dermatitis; Dupilumab; Long-term treatment; Real-world

Key Summary Points

Atopic dermatitis (AD) is a chronic type 2 inflammatory skin condition that can have a significant impact on the quality of life and mental health of affected people of all ages

Herein, we report the interim 1-year data results from the 5-year multinational real-world GLOBOSTAD registry, including the treatment patterns, effectiveness and safety of dupilumab, as well as AD-related hospitalizations and emergency room or urgent care facility visits by patients

Improvements in AD signs, symptoms and quality of life and emergency or urgent healthcare center visits were observed at the first follow-up visit; approximately 3 months post-dupilumab initiation, these positive changes were further improved or maintained for up to 1 year of dupilumab treatment

The safety of dupilumab was consistent with the known dupilumab safety profile; overall, the rate of patient discontinuation was low, which reflects the overall favorable benefit–risk profile of dupilumab

These results show that, within the first year of treatment, dupilumab was effective in improving and maintaining positive changes to AD signs, symptoms and quality of life and led to a reduction in the number of visits to emergency or urgent healthcare centers

DIGITAL FEATURES

This article is published with digital features, including a graphical abstract to facilitate understanding of the article. To view digital features for this article go to https://doi.org/10.6084/m9.figshare.26976751.

INTRODUCTION

Atopic dermatitis (AD) is a chronic type 2 inflammatory skin condition that can have a significant impact on the quality of life (QoL) and mental health of affected persons [1–3]. Although often perceived as a childhood disease,

AD can persist into adulthood or develop in adult patients [4, 5], as evidenced by a high degree of prevalence and incidence in both age groups [6]. Patients with AD also have increased probability of comorbid type 2 inflammatory diseases, which can further impact the QoL of AD patients [7, 8].

Dupilumab is a fully human VelocImmune®-derived monoclonal antibody that blocks the shared receptor component for interleukin (IL)-4 and IL-13, inhibiting signaling of both IL-4 and IL-13, which are key and central drivers of type 2 inflammation in multiple diseases, including AD [9–13]. In numerous clinical trials on patients with AD, treatment with dupilumab, compared with a placebo, has demonstrated clinically meaningful improvements in disease signs and symptoms, with an acceptable safety profile [14–22]. However, currently, there are limited data on the long-term use of dupilumab in a multinational real-world setting. Such real-world data are important to ensure that medical practitioners have the most up-to-date and relevant information for the management of AD in their everyday clinical practice.

GLOBOSTAD (NCT03992417) is an ongoing, 5-year, multinational registry of adult and adolescent patients with AD who have initiated dupilumab treatment in the real world according to local prescription guidelines. Baseline data for patients enrolled in GLOBOSTAD prior to dupilumab initiation revealed multidimensional disease burden across AD signs, symptoms and QoL despite treatment with topical and/or systemic AD medications, as well as considerable burden of comorbid type 2 inflammatory diseases [23].

In this article, we report dupilumab treatment effectiveness and treatment patterns and safety and healthcare burden for patients in GLOBOSTAD treated with dupilumab for up to 1 year.

METHODS

Study Design and Participants

The study design and inclusion/exclusion criteria of GLOBOSTAD (NCT03992417) have been previously reported [23]. GLOBOSTAD is an ongoing, 5-year, multinational, longitudinal, prospective, observational study of adult and adolescent (aged ≥ 12 years at baseline) patients with AD who have initiated dupilumab in the real world according to their local country-specific prescribing guidelines. Patients were enrolled in the registry between July 11, 2019, and March 31, 2022. Patients with prior use of dupilumab within 6 months of the screening visit or within 6 months of the baseline visit (if screening and baseline occurred on the same day) were excluded from enrollment. However, patients were eligible for inclusion if they had already initiated treatment with dupilumab for AD within 6 months of their enrollment in the registry, provided that all core baseline data required by the registry protocol had been captured at the time of dupilumab initiation and were available to be entered in the registry database.

The GLOBOSTAD study is being conducted in accordance with the provisions of the Declaration of Helsinki, the International Conference on Harmonization Good Clinical Practice guideline and applicable regulatory requirements. The protocol was reviewed and approved by institutional review boards/ethics committees at all sites. Written informed consent was obtained from all study participants or their parents/legally acceptable representatives.

Assessments

Mean physician- and patient-reported outcomes (PROs) in the follow-up population were evaluated at baseline, 3 months, 6 months and 12 months post-dupilumab initiation. Physician-rated AD assessments included Eczema Area and Severity Index (EASI) total score (range 0–72; minimal clinically important difference [MCID] ≥ 6.6 points) [24, 25], percent body surface area (BSA) affected (range 0–100%) and SCORing Atopic Dermatitis (SCORAD) total score (range 0–103; MCID ≥ 8.7 points) [24, 25]. PROs included Patient-Oriented Eczema Measure (POEM, range 0–28; MCID ≥ 3.4 points) [24], Dermatology Life Quality Index (DLQI) total score for adults (range 0–30; MCID ≥ 4 points) [26]

or Children's Dermatology Life Quality Index (CDLQI) total score for adolescents (range 0–30; MCID ≥ 6 points) [27] and pruritus Numeric Rating Scale (NRS) total score (range 0–10; MCID ≥ 3 points) [28].

Real-world dupilumab treatment patterns were summarized for the follow-up population, including proportions of patients with temporary treatment interruptions (≥ 42 days) or permanent treatment discontinuations. The probability of temporary dupilumab interruption or permanent discontinuation over time was estimated using Kaplan–Meier analysis [29]. Healthcare burden was described using the Health Care Resource Utilization Questionnaire (HCRUQ; patients were asked, "Over the past 3 months, have you been hospitalized or visited the emergency room or an urgent care center because of your eczema? If yes, what was the reason?") [24, 25].

Safety outcomes were evaluated in the safety population, including treatment-emergent adverse events (TEAEs) and serious adverse events (SAEs) and TEAEs leading to permanent dupilumab discontinuation or death.

Table 1 Patient disposition in the follow-up population

	Total ***n*** **= 955***
Patients who participated in one scheduled follow-up visit	
Visit 2 month 3, *n* (%)	903 (94.6%)
Visit 3 month 6, *n* (%)	758 (79.4%)
Visit 4 month 12, *n* (%)	863 (90.4%)
Patients with any treatment interruption, *n* (%)	103 (11.4%)
Patients who permanently discontinued treatment, *n* (%)	115 (12.7%)
AE	3 (2.6%)
Lack of efficacy	4 (3.5%)
Poor compliance	7 (6.1%)
Study withdrawal	56 (48.7%)
Other	45 (39.1%)
Reduction in AD signs and symptoms**	4 (3.5%)

AD atopic dermatitis; *AE* adverse event

**n* = number of patients in the enrollment/safety population

***Number of patients who discontinued because of reduction in AD signs and symptoms were classified as "other"

Statistical Analyses

The enrollment and safety populations consisted of all patients who signed the informed consent waiver, completed the baseline/enrollment visit and received at least one dose of dupilumab. The follow-up population consisted of all enrolled patients who completed the follow-up assessment at month 3 of the trial. Data were analyzed using descriptive statistics, including number of patients (*n*), arithmetic mean and standard deviation (SD) or standard error (SE) for continuous data. Categorical data were summarized using counts and percentages. No confirmatory/statistical hypotheses were tested, and no imputation for missing data was performed.

RESULTS

Patient demographics, clinical characteristics, comorbidities, treatment history and previous medications of the initial 952 patients enrolled in GLOBOSTAD have been previously published [23]. Of 968 patients who underwent screening, 955 (96.7%) were included in the enrollment/safety population for the present interim analysis, 728 (76.2%) of the 955 patients in the enrollment/safety population initiated dupilumab on/after screening, and the remaining 227 (28.3%) initiated dupilumab before screening.

A total of 955 patients were included in the enrollment/safety population, and 903 (94.6%) patients completed the assessment in at least one follow-up visit and were subsequently enrolled in the follow-up population; of these, 758 (79.4%), 863 (90.4%) and 705 (73.8%) participated in the follow-ups at month 3, 6 and 12, respectively. Of the patients enrolled (for further monitoring) in the follow-up

Table 2 Concomitant systemic treatments either indicated for treating atopic dermatitis or off-label but prescribed specifically for treating atopic dermatitis in the follow-up population

	Dupilumab initiators on or after screening ($N = 685$)	Dupilumab initiators before screening ($N = 218$)	Total ($N = 903$)
Any concomitant systemic treatments*,**	160 (23.4%)	37 (17.0%)	197 (21.8%)
Systemic immunosuppressants	80 (11.7%)	16 (7.3%)	96 (10.6%)
Systemic corticosteroids	52 (7.6%)	20 (9.2%)	72 (8.0%)
Systemic JAKi	18 (2.6%)	1 (0.5%)	19 (2.1%)
Systemic biologics	6 (0.9%)	1 (0.5%)	7 (0.8%)
Other systemic therapies†	27 (3.9%)	5 (2.3%)	32 (3.5%)

*Concomitant treatments that are ongoing at study enrollment (visit 1, month 0) or during the study, or that started at study enrollment (visit 1, month 0) or during the study

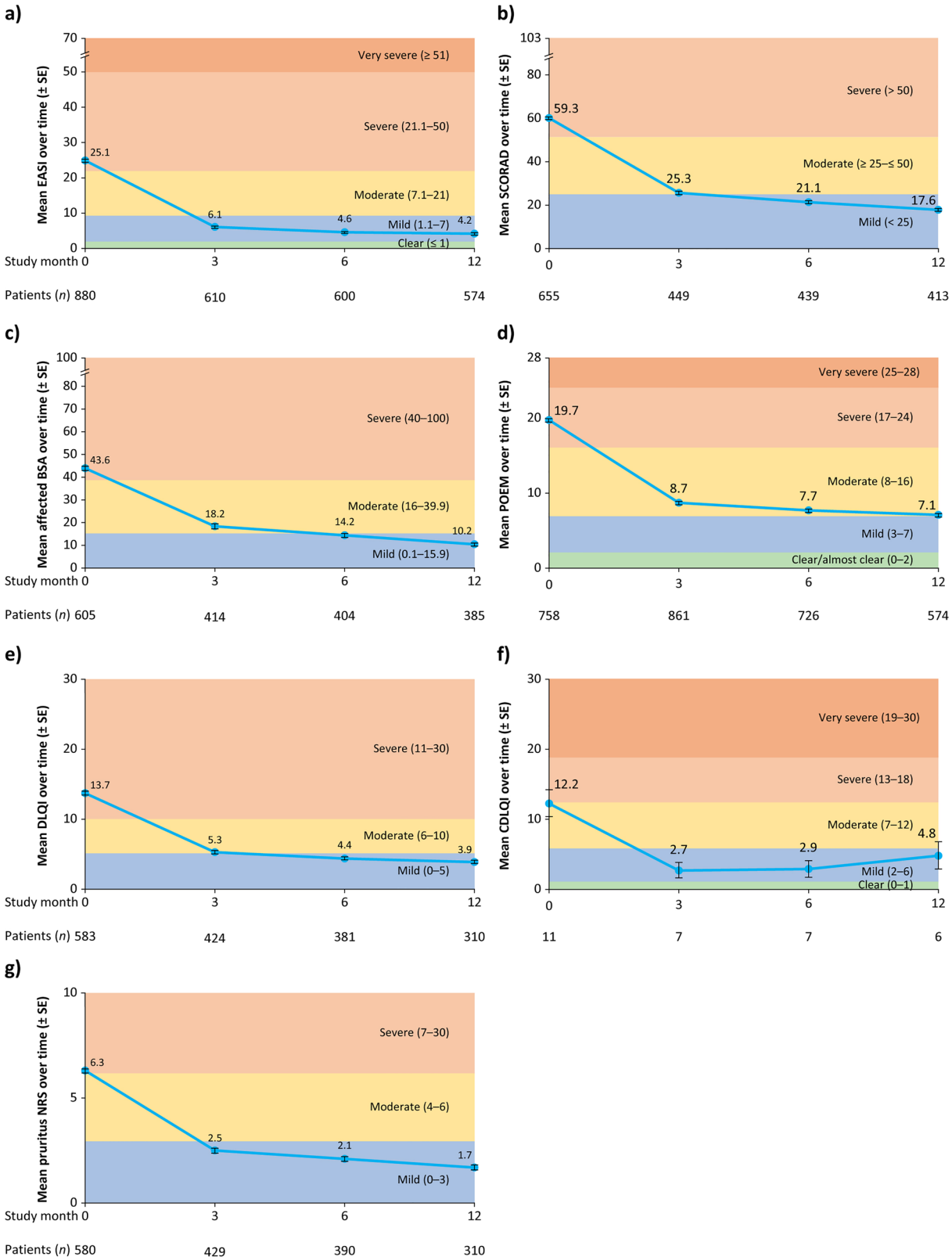
**Systemic treatment: any treatment (excluding dupilumab), including immunosuppressants, corticosteroids, antibiotics, antihistamines/antiallergics and other therapies for which the route is not nasal, ophthalmic, inhalation, topical, cutaneous, percutaneous or transdermal based on the Systemic Treatment ATC Code Dictionary

†The "other" systemic therapies group was made up of doxepin hydrochloride 10 (1.1%); alprazolam 3 (0.3%); colecalciferol 2 (0.2%); *Akebia* spp. 1 (0.1%); *Glycyrrhiza* spp. 1 (0.1%); ascorbic acid 1 (0.1%); ascorbic acid 1 (0.1%); *Bifidobacterium breve* 1 (0.1%); *Borago officinalis* oil 1 (0.1%); bromazepam 1 (0.1%); brotizolam 1 (0.1%); *Cinnamomum cassia* bark (*Coix lacryma-jobi* subsp. 1 (0.1%); *Cinnamomum cassia* bark (*Paeonia lactiflora* root) 1 (0.1%); clobetasol 1 (0.1%); *Coptis* spp. rhizome; *Gardenia jasminoides* fruit*; Phellodendron* spp. 1 (0.1%); cystine, pyridoxine hydrochloride 1 (0.1%); desoximetasone 1 (0.1%); dietary supplement 1 (0.1%); famotidine 1 (0.1%); *Glycyrrhiza* spp. 1 (0.1%); ibuprofen 1 (0.1%); nicotinamide 1 (0.1%); other emollients and protectives 1 (0.1%); pregabalin 1 (0.1%); pyridoxine hydrochloride 1 (0.1%); *Ribes nigrum* 1 (0.1%); suplatast tosilate 1 (0.1%); tranexamic acid 1 (0.1%); vitamin B12 1 (0.1%); vitamin D 1 (0.1%). *JAKi* janus kinase inhibitors

population, 13 (1.4%) were adolescents. Of 955 patients, 103 (11.4%) had a temporary break in treatment, and 115/955 (12.7%) discontinued treatment (Table 1). Of those who discontinued, 3/115 (2.6%) stopped because of an AE, 4/115 (3.5%) because of lack of efficacy and 7/115 (6.1%) because of poor compliance; 56/115 (48.7%) withdrew from the study, and 45/115 (39.1%) were categorized as having discontinued for "other" reasons, of which 4/115 (3.5%) discontinued because of improvement in AD signs and symptoms (Table 1).

A total of 197 (21.8%) patients enrolled in the follow-up population reported using concomitant systemic treatments in addition to dupilumab, of which 96 (10.6%) reported using systemic immunosuppressants, 72 (8.0%) reported systemic corticosteroids, 19 (2.1%) reported systemic Janus kinase inhibitors, 7 (0.8%) reported systemic biologics, and 32 (3.5%) reported other systemic therapies (Table 2).

At the 3-month timepoint, all physician-assessed and PRO measures showed rapid improvement from baseline values (Fig. 1). The results were presented in mean values for EASI, improvement from 25.1 to 6.1 (Fig. 1a); SCORAD, 59.3 to 25.31 (Fig. 1b); POEM, 19.7 to 8.71 (Fig. 1d); DLQI, 13.7 to 5.31 (Fig. 1e); CDLQI, 12.2 to 2.71 (Fig. 1f); and NRS, 6.3 to 2.51 (Fig. 1g)—and demonstrated a decrease that exceeded the MCID for each measure, respectively. At month 3, the mean BSA-affected score decreased from 43.6% to 18.2% and at month 6, further decreased to 14.2% (Fig. 1c). At one year, there was sustained improvement in mean EASI, SCORAD, BSA affected, POEM, DLQI and pruritis NRS scores. The mean CDLQI score remained in the "mild" range (2–6) from month 3 to 12 (Fig. 1f). Persistence of patients receiving dupilumab was estimated using Kaplan–Meier analysis. At month 6 and month 12 of dupilumab


a)
Mean EASI over time (± SE)
Very severe (≥ 51)
Severe (21.1–50)
Moderate (7.1–21)
Mild (1.1–7)
Clear (≤ 1)
25.1
6.1
4.6
4.2
Study month 0 3 6 12
Patients (n) 880 610 600 574
b)
Mean SCORAD over time (± SE)
Severe (> 50)
Moderate (≥ 25–≤ 50)
Mild (< 25)
59.3
25.3
21.1
17.6
0 3 6 12
655 449 439 413
c)
Mean affected BSA over time (± SE)
Severe (40–100)
Moderate (16–39.9)
Mild (0.1–15.9)
43.6
18.2
14.2
10.2
Study month 0 3 6 12
Patients (n) 605 414 404 385
d)
Mean POEM over time (± SE)
Very severe (25–28)
Severe (17–24)
Moderate (8–16)
Mild (3–7)
Clear/almost clear (0–2)
19.7
8.7
7.7
7.1
0 3 6 12
758 861 726 574
e)
Mean DLQI over time (± SE)
Severe (11–30)
Moderate (6–10)
Mild (0–5)
13.7
5.3
4.4
3.9
Study month 0 3 6 12
Patients (n) 583 424 381 310
f)
Mean CDLQI over time (± SE)
Very severe (19–30)
Severe (13–18)
Moderate (7–12)
Mild (2–6)
Clear (0–1)
12.2
2.7
2.9
4.8
0 3 6 12
11 7 7 6
g)
Mean pruritus NRS over time (± SE)
Severe (7–30)
Moderate (4–6)
Mild (0–3)
6.3
2.5
2.1
1.7
Study month 0 3 6 12
Patients (n) 580 429 390 310

◂**Fig. 1** Mean (SE) clinician- and patient-reported outcomes over time in the follow-up population: **a** EASI, **b** SCORAD, **c** BSA affected, **d** POEM, **e** DLQI, **f** CDLQI, **g** pruritus NRS. *BSA* body surface area; *CDLQ* Children's Dermatology Life Quality Index; *DLQI* Dermatology Life Quality Index; *EASI* Eczema Area and Severity Index; *NRS* Numerical Rating Scale; *POEM* Patient-Oriented Eczema Measure; *SCORAD* SCORing Atopic Dermatitis; *SE* standard error

treatment, it was estimated that the probability of a patient temporarily discontinuing dupilumab treatment was 6% and 9%, respectively (Fig. 2a). Additionally, it was estimated that at month 6 and month 12, the probability of a patient permanently discontinuing dupilumab treatment was 2% and 6%, respectively (Fig. 2b).

At month 12, the proportion of patients who completed the HCRUQ reporting hospitalization or emergency room/urgent care center visits due to eczema in the 3 months prior to visit month after initiating dupilumab decreased from 11.1% at baseline to 1.7% (Fig. 3a). Unbearable itch, eczema flares and skin infections were reported as reasons for hospitalization or emergency room/urgent care center visits due to eczema in the 3 months prior to visit month before initiating dupilumab. At month 12, 8/462 (1.7%) of patients in the follow-up group who completed the HCRUQ reported hospitalization or emergency room/urgent care center visit(s), of which 5/8 (63%) reported the reason for the visit as due to eczema flare, 2/8 (25%) reported the reason as other, and 1/8 (13%) reported the reason as skin infection. No patients reported unbearable itch as a reason (Fig. 3b).

Adverse events were consistent with the known safety profile of dupilumab (Table 3). From the 955 patients in the safety population, 359 (39.9%) had any TEAE, 187 (20.8%) had any treatment-related TEAE, 22 (2.4%) had any treatment-emergent serious AE, and 23 (2.6%) had any TEAE leading to permanent treatment discontinuation (Table 3). One patient (1/955; 0.1%) had any TEAE leading to death; however, the reported cause of death was cardiac arrest, which was deemed unrelated to treatment. TEAEs reported by at least 5% of patients were allergic conjunctivitis (72; 7.6%), COVID-19 (49; 5.1%) and conjunctivitis (50; 5.2%) (Table 4).

DISCUSSION

After dupilumab initiation, patients enrolled in GLOBOSTAD showed rapid improvements in AD signs, symptoms and QoL, with clinically meaningful improvements in both physician-assessed and PRO outcome measures for EASI, SCORAD, BSA affected, POEM, DLQI, CDLQI and pruritus NRS at 3 months, which continued to improve or were sustained through 1 year of therapy. At month 3, affected BSA extent decreased from

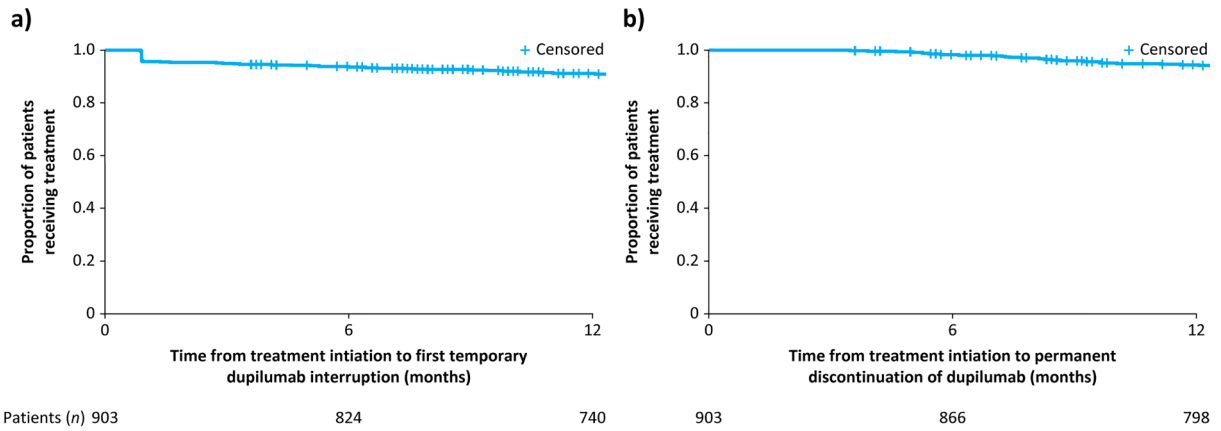


Fig. 2 **a** Kaplan–Meier curve for time to first temporary dupilumab interruption (follow-up population); **b** Kaplan–Meier curve for time to permanent discontinuation of dupilumab (follow-up population)

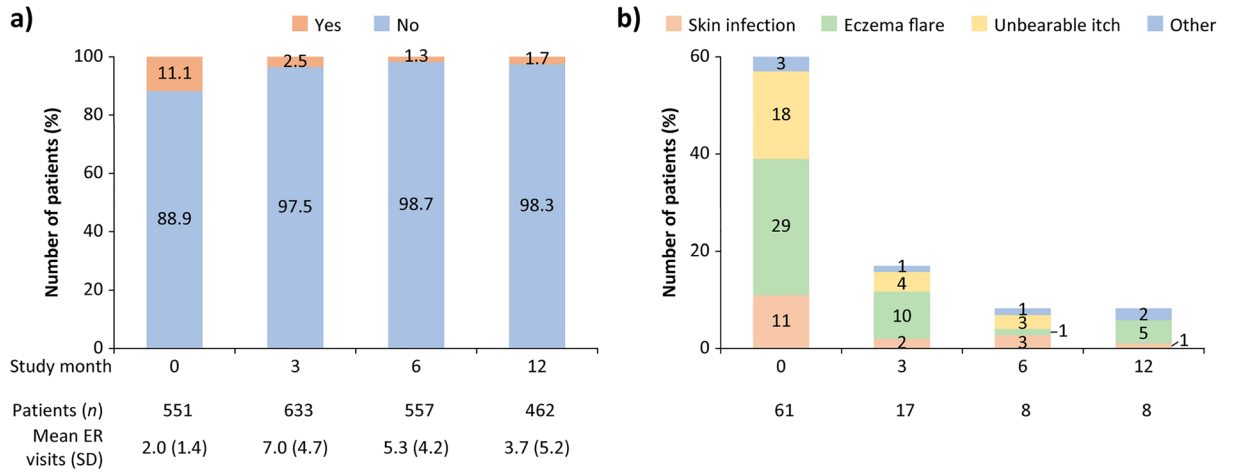


Fig. 3 **a** Proportion of patients reporting hospitalization or visits to the emergency room/urgent care center due to eczema in the 3 months prior to visit month after initiating dupilumab treatment (follow-up population); **b** reasons for visit to the emergency room/urgent care center due to eczema in the 3 months prior to visit month after initiating dupilumab treatment (follow-up population)

baseline, showing improvement in AD signs that were sustained until month 12.

The primary reason patients were enrolled in the GLOBOSTAD study was failure of prior treatments, as evidenced by patients having moderate-to-severe AD despite a high reported use of systemic therapies [23]. This interim 1-year analysis of real-world observational data demonstrates the effectiveness of dupilumab at rapidly achieving and maintaining improvements in AD signs and symptoms in patients with moderate-to-severe AD in a real-world setting during the first year following dupilumab initiation. These results were consistent with or show greater dupilumab efficacy compared with prior findings in adults, adolescents who were enrolled in phase 3 clinical trials with a duration of 16 weeks that were open-label [20] or placebo controlled [14, 15, 19, 30], as well as in a 76-week open-label extension study [18], and the real-world 1-year patient data from the PROSE registry [31].

The low rate of dupilumab treatment discontinuations due to lack of effectiveness or AE within the 1-year follow-up reported here, as well as the discontinuation of 3.4% of patients due to reduction in AD signs and symptoms, reflects the overall favorable benefit–risk profile of dupilumab. Additionally, persistence with dupilumab therapy was greater than in previously reported real-world studies [32, 33]. Interim 1-year results from the GLOBOSTAD 5-year study support the conclusion of the previous long-term real-world study that dupilumab is well tolerated in an ethnically diverse patient population. This was further

Table 3 Treatment-emergent adverse events within the 1-year timeframe of the current interim analysis

	n **(%)** ***n*** **= 955***
Patients with any TEAE	359 (39.9%)
Patients with any treatment-related TEAE	187 (20.8%)
Patients with any treatment-emergent SAE	22 (2.4%)
Patients with any TEAE leading to death**	1 (0.1%)
Patients with any TEAE leading to permanent discontinuation of dupilumab	23 (2.6%)

TEAE treatment-emergent adverse event; *SAE* serious adverse event

*n = number of patients in the enrollment/safety population

**Reported cause of death was cardiac arrest (PT), which was deemed unrelated to treatment

Table 4 Treatment-emergent adverse events (by MedDRA Preferred Term) reported by at least 5% of patients

TEAE reported in ≥ 5% of patients by Preferred Term	Patients with ≥ 1 event, *n* (%) *n* = 955*	Total number of TEAE	Patients with ≥ 1 treatment-related event, *n* (%) *n* = 955*	Treatment-related TEAE	Patient discontinued dupilumab treatment *n* = 955*	nP/100 PY
Allergic conjunctivitis	73 (7.6%)	83	52 (5.4%)	60	2 (0.2%)	8.33
COVID-19	49 (5.1%)	50	1 (0.1%)	1	0 (0)	0.14
Conjunctivitis	50 (5.2%)	57	45 (4.7%)	51	4 (0.4%)	7.08

MedDRA Medical Dictionary for Regulatory Activities; *nP* number of patients; *PY* patient-years

*n = number of patients in the safety population. Allergic conjunctivitis is defined as an inflammatory response of the conjunctiva to an allergen; conjunctivitis is defined as inflammation of the conjunctiva of the eye due to infection

substantiated by the HCRUQ results, which showed a decrease compared with baseline in the proportion of patients reporting hospitalization or a visit to the emergency room/urgent care facilities at 12 months compared.

The findings in this study are limited by the real-world design of the GLOBOSTAD registry, including no a priori statistical hypothesis and a lack of placebo or comparator group. The improvements observed cannot be entirely attributed to dupilumab, because after patients initiated dupilumab as part of their country-specific guidelines, there was no restriction on the use of concomitant treatments for AD, as patients were being treated per the standard of care in a real-world setting. Lastly, the low number of adolescents enrolled in the study limits conclusions in this study on long-term use of dupilumab in adolescents.

CONCLUSION

Interim 1-year data from the ongoing GLOBOSTAD study show that adult and adolescent patients with moderate-to-severe AD who initiated dupilumab according to their country-specific guidelines experienced rapid, robust and sustained improvements across multiple disease domains, including AD signs, symptoms and QoL. The real-world safety profile of dupilumab was acceptable and consistent with the known dupilumab safety profile. The low rates of discontinuations due to an AE or lack of efficacy within 1 year after initiating dupilumab treatment is aligned with those of previously reported studies, demonstrating the favorable benefit-risk profile of dupilumab.

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Data Availability. The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request. Qualified researchers may request access to study documents (including the clinical study report, study protocol with any amendments, blank case report form and statistical analysis plan) that support the methods and findings reported in this manuscript. Individual anonymized participant data will be considered for sharing once the indication has been approved by a regulatory body, if there is legal authority to share the data and there is not a reasonable likelihood of participant reidentification. Submit requests at https://vivli.org/.

Declarations

Conflict of Interest. P. Calzavara-Pinton is an advisory board member for AbbVie, Almirall, Galderma, LEO Pharma, Meda, and Sanofi. C-Y. Chu is an investigator for AbbVie, Dermira, Eli Lilly, Novartis, Oneness Biotech, Pfizer, Regeneron Pharmaceuticals Inc., Roche, and Sanofi; a consultant for AbbVie, Eli Lilly, Novartis, Pfizer, Roche, and Sanofi; a speaker for AbbVie, Eli Lilly, Mylan, Novartis, Pfizer, Roche, Sanofi, and Viatris; and an advisory board member for Mylan, Pfizer, Roche, and Sanofi. Hilde Lapeere is on the advisory boards of AbbVie, LEO Pharma, Eli Lilly, Pfizer, and Sanofi. M. Rossi is a speaker for AbbVie, Galderma, La Roche-Posay, LEO Pharma, Pfizer, and Sanofi. S.M. Ferrucci is an advisory board member for AbbVie, Eli Lilly, and Sanofi; a principal Investigator for Almirall, Menarini, and Pfizer; and reports honoraria for lectures and research grants from Novartis. W-H. Chung has nothing to disclose. A-C. Fougerousse is a consultant for AbbVie, Galderma, LEO Pharma, Lilly, and Sanofi; and a consultant for AbbVie, Eli Lilly, and Sanofi. D.S. Fomina reports honoraria from CSL Behring, Novartis, Sanofi, and Shire. G. Holzer is an advisory board member for AbbVie, Almirall, Eli Lilly, Galderma, LEO Pharma, and Sanofi. J. Čelakovská has nothing to disclose. M. Al-Ahmad is an advisory board member and speaker for AstraZeneca, GSK, and Novartis. T. Tzellos has received honoraria from and is an advisory board member and speaker for AbbVie; and has received honoraria from and is an advisory board member for Boehringer Ingelheim and Sanofi. J. Wu is an employee of Sanofi, and may hold stock and/or stock options in the company. M. Ardeleanu is an employee and shareholder of Regeneron Pharmaceuticals Inc. K. Bosman is an employee and shareholder of Sanofi.

Ethical Approval. The study was conducted in accordance with the Declaration of Helsinki, the International Conference on Harmonisation Good Clinical Practice guideline and applicable regulatory requirements. The local institutional review board or ethics committee at each study center oversaw trial conduct and documentation. All patients, or their parents/guardians, provided written informed consent before participating in the trial. Pediatric patients provided assent according to the ethics committee (institutional review board/independent ethics committee)-approved standard practice for pediatric patients at each participating center.

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