Dupilumab is Efficacious in Patients with Prurigo Nodularis Regardless of Stable Use of **Topical Corticosteroids and Topical Calcineurin Inhibitors: Pooled** Results from Two **Phase 3 Trials (LIBERTY-PN PRIME and PRIME2)**

DUPILUMAB

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Background

- Prurigo nodularis (PN) is a chronic inflammatory disease characterized by severely itchy cutaneous nodules that substantially affect quality of life[1–3]
- Although topical treatments are frequently prescribed, these therapies have limited evidence of efficacy, and/or associated side effects[1]
- Two independent, randomized, phase 3 clinical trials, LIBERTY-PN PRIME (NCT04183335) and PRIME2 (NCT04202679), demonstrated the efficacy and safety of dupilumab in patients with PN inadequately controlled with topical therapies or for whom those therapies were not advisable[4]

Methods

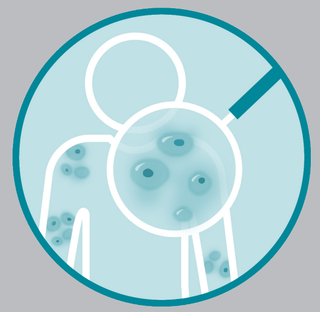
Study design

- Population: Adult patients with PN inadequately controlled with topical prescription therapies or for whom those therapies are inadvisable
- Subgroups: Patients with or without a stable[a] use of TCS/TCI
- Treatment: Dupilumab 300 mg every 2 weeks (q2w) or matched placebo for 24 weeks; low to moderate topical corticosteroids (TCS)/topical calcineurin inhibitors (TCI) or antidepressants were permitted if patients were on a stable regimen prior to screening and enrolment, provided they expected the dose to not be changed throughout the study

Study endpoints

- Proportion of patients with ≥4-point reduction in WI-NRS[b] from baseline at Week 24[c]
- Proportion of patients with Investigator's Global Assessment for PN Stage of disease (IGA PN-S)[d] score 0 or 1 at Week 24
- Mean change from baseline in health-related quality of life (HRQoL), as measured by Dermatology Life Quality Index (DLQI)[e] at Week 12 and Week 24

[a]Stable use was defined as maintaining the same medicine (low-to-medium potency TCS and/or TCI) during the study, with the same frequency of treatment (once or twice daily) from 2 weeks prior to screening. For patients without stable use of TCS/TCI at baseline, TCS/TCI were considered prohibited medication during the trial. [b]**WI-NRS, patient-reported outcome**, worst pruritus in the past 24 hours (range 0–10; 0 = no itch, 10 = very severe itch). [c]Meaningful improvement thresholds were defined in the context of the LIBERTY-PN PRIME/PRIME2 studies.[5,6] [d]IGA PN-S, clinician-assessed outcome, (0 = clear [no nodules], 1 = almost clear [1–5 nodules], 2 = mild [6–19 nodules], 3 = moderate [20–99 nodules], 4 = severe [>100 nodules]). [e]**DLQI**, patient-reported outcome (range 0–30; 0 = no effect and 30 = extremely large effect on health-related quality of life).



Objective

- **To report the effect of dupilumab on pruritus, skin lesions, and quality of life in patients with PN, with or without stable background use of TCS and/or TCI, using pooled data from two phase 3 trials: LIBERTY PN PRIME and PRIME2 trials**

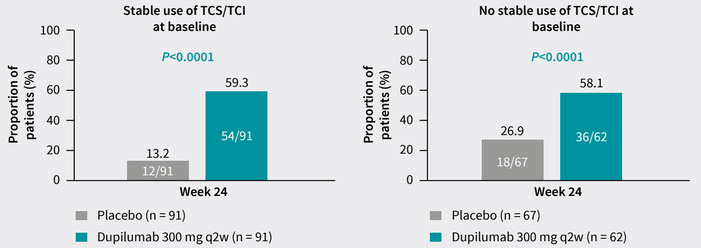
Conclusions

- **Dupilumab treatment improves itch, skin lesions, and quality of life in patients with PN, with an acceptable safety profile regardless of concomitant treatment with topical therapies (TCS/TCI)**

Results

Figure 1. Proportion of patients achieving ≥4-point improvement in WI-NRS at Week 24 by stable use of TCS/TCI.

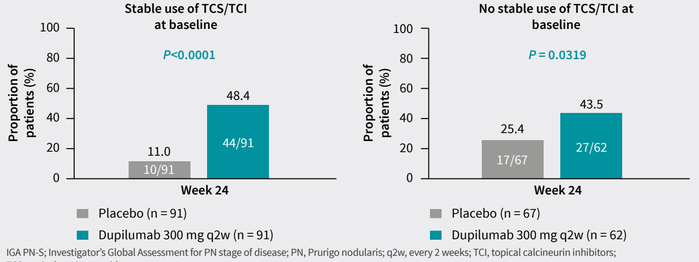
At Week 24, significantly more patients treated with dupilumab achieved ≥4-point improvement in WI-NRS vs placebo, regardless of stable use of TCS/TCI



q2w, every 2 weeks; TCI, topical calcineurin inhibitors; TCS, topical corticosteroids; WI-NRS, Worst-Itch Numerical Rating Scale.

Figure 2. Proportion of patients achieving an IGA PN-S score of 0 or 1 at Week 24 by stable use of TCS/TCI.

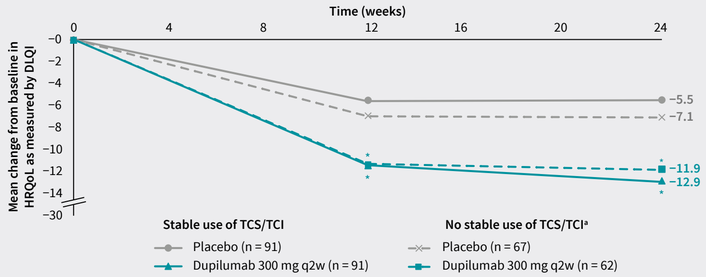
At Week 24, the proportion of patients achieving an IGA PN-S score of 0 or 1 was significantly higher in the dupilumab group vs placebo, regardless of stable use of TCS/TCI



IGA PN-S; Investigator's Global Assessment for PN stage of disease; PN, Prurigo nodularis; q2w, every 2 weeks; TCI, topical calcineurin inhibitors; TCS, topical corticosteroids.

Figure 3. Mean change from baseline in HRQoL, as measured by DLQI by stable use of TCS/TCI.

Dupilumab treatment had a positive effect on HRQoL, regardless of stable use of TCS/TCI



*P value vs placebo <0.0001.
[a]Although the placebo response was higher for patients with no stable use of TCS/TCI at baseline, the effect of dupilumab treatment was comparable in the two subgroups at both Week 12 and Week 24.
DLQI, Dermatology Life Quality Index; HRQoL, Health-related quality of life; q2w, every 2 weeks; TCI, topical calcineurin inhibitors; TCS, topical corticosteroids.

Table 1. Safety summary by stable use of TCS/TCI.

	Stable use of TCS/TCI		No stable use of TCS/TCI	
	Placebo (n = 68)	Dupilumab 300 mg q2w (n = 91)	Placebo (n = 67)	Dupilumab 300 mg q2w (n = 61)
Any TEAE, n (%)	48 (53.3)	54 (59.3)	32 (47.8)	37 (60.7)
Any severe TEAE, n (%)	3 (3.3)	2 (2.2)	3 (4.5)	3 (4.9)
Any TEAE leading to death, n (%)	0	0	0	0
Any TEAE leading to permanent discontinuation of study drug, n (%)	1 (1.1)	0	2 (3.0)	0
TEAEs reported in ≥ 5% of patients in any treatment group (MedDRA PT), n (%)				
COVID-19	1 (1.1)	0	4 (6.0)	1 (1.6)
Headache	5 (5.6)	6 (6.6)	4 (6.0)	2 (3.3)
Neurodermatitis	7 (7.8)	3 (3.3)	2 (3.0)	0
Accidental overdose	3 (3.3)	4 (4.4)	4 (6.0)	5 (8.2)
Other TEAEs of interest, n (%)				
Injection Site Reactions (HLT)	5 (5.6)	4 (4.4)	4 (6.0)	2 (3.3)
Conjunctivitis (narrow)[a]	2 (2.2)	3 (3.3)	0	2 (3.3)
Herpes viral infections (HLT)	0	2 (2.2)	0	2 (3.3)
Severe or serious infection	0	1 (1.1)	2 (3.0)	1 (1.6)
COVID-19 pneumonia	0	0	0	1 (1.6)
Pelvic inflammatory disease	0	1 (1.1)	0	0
Pyelonephritis acute	0	1 (1.1)	0	0
COVID-19	0	0	1 (1.5)	0
Sepsis	0	0	1 (1.5)	0

[a]Conjunctivitis (narrow term) which includes the MedDRA PTs conjunctivitis, conjunctivitis bacterial, conjunctivitis viral, conjunctivitis adenoviral, conjunctivitis allergic, and atopic keratoconjunctivitis.
COVID-19, Coronavirus disease 2019; HLT, High Level Term; MedDRA, Medical Dictionary for Regulatory Activities; PT, Preferred Term; q2w, every 2 weeks; TCI, topical calcineurin inhibitors; TCS, topical corticosteroids; TEAE, treatment emergent adverse event.

*This author has been included to serve as a presenter.

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