

Predictors of Psoriasis Relapse After Guselkumab Withdrawal: An Observational Analysis of Chinese Patients

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Background

- Guselkumab, a fully human monoclonal antibody that inhibits the biological activity of interleukin-23,¹ has received conditional approval in China for the treatment of moderate-to-severe plaque psoriasis based on results from global studies^{2,3}
- A post-approval commitment (PAC) study (NCT04914429) previously demonstrated the efficacy of guselkumab in Chinese patients with moderate-to-severe psoriasis,⁴ and was conducted to understand maintenance of response after guselkumab withdrawal and time to psoriasis relapse in a real-world setting
- The primary results on maintenance of response following withdrawal of guselkumab are shown in a concurrent presentation

Objective

- Here we explore potential predictors of psoriasis relapse after withdrawal of guselkumab treatment in Chinese patients with moderate-to-severe plaque psoriasis

Methods

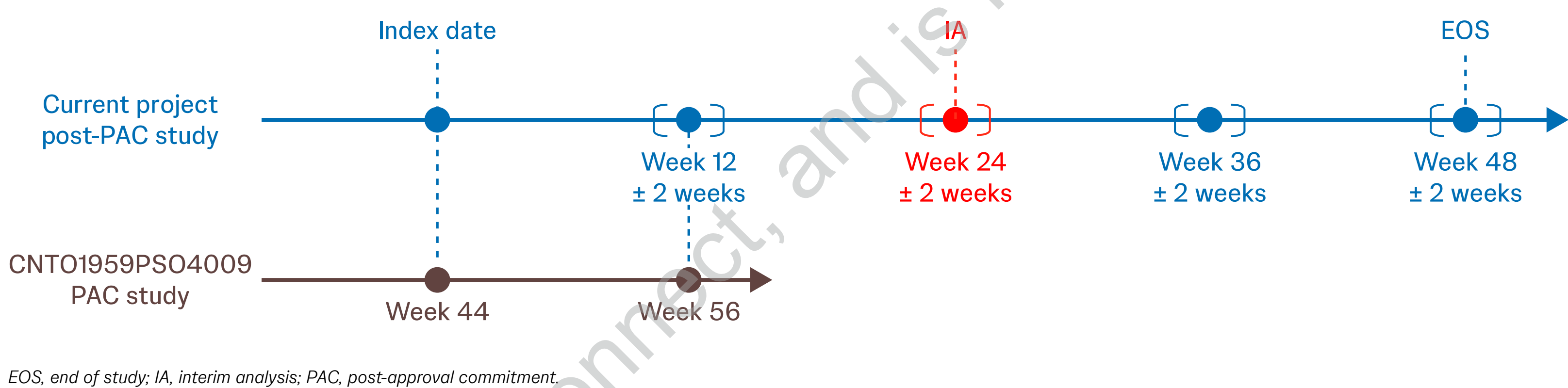
Study design

- This post-PAC, prospective, observational real-world study included Chinese adult patients with moderate-to-severe plaque psoriasis who achieved a Psoriasis Area and Severity Index (PASI) 75 response at the time of receiving the last scheduled dose of guselkumab (Week 44) in the preceding PAC study (index date; **Figure 1**) and subsequently withdrew from guselkumab treatment

Secondary endpoints

- We present sociodemographic and clinical characteristics of patients in the relapse (i.e., those starting a systemic treatment for psoriasis after guselkumab withdrawal) and non-relapse groups
- Change in Dermatology Life Quality Index (DLQI) score during the study follow-up period was also assessed
- Associations between patients' demographic and clinical features with clinical outcomes of relapse or non-relapse were explored using Cox proportional hazards models to estimate hazard ratios (HRs) and 95% confidence intervals (CIs)

Figure 1: Study design



Results

Demographic characteristics at the index date

- Of 243 eligible patients included in this post-PAC study, 103 (42.4%) experienced a relapse of psoriasis
- Among patients in the relapse group (**Table 1**):
 - mean (standard deviation [SD]) age was 41.7 (13.0) years
 - 87.4% were male
 - 15.5% had a family history of psoriasis
 - 68.0% previously received systemic treatment; 5.8% previously received a biologic
- Among patients in the non-relapse group (n = 140) (**Table 1**):
 - mean (SD) age was 40.8 (11.8) years
 - 74.3% were male
 - 11.4% had a family history of psoriasis
 - 55.0% previously received systemic treatment; 4.3% previously received a biologic

DLQI scores over time

- At the index date, DLQI scores were available for 80 (77.7%) patients in the relapse group and 107 (76.4%) patients in the non-relapse group
- Mean DLQI scores worsened from the index date to Week 48 in the post-PAC study
- In the relapse group:
 - mean DLQI (SD) score at the index date was 1.9 (3.11)
 - mean DLQI (SD) change from the index date was (**Figure 2**)
 - 0.9 (3.94) at Week 12
 - 8.1 (7.17) at Week 48
- In the non-relapse group:
 - mean DLQI (SD) score at the index date was 3.0 (4.93)
 - mean DLQI (SD) change from the index date was (**Figure 2**)
 - 0.1 (4.89) at Week 12
 - 6.6 (7.70) at Week 48

Effects of demographic and clinical characteristics on psoriasis relapse

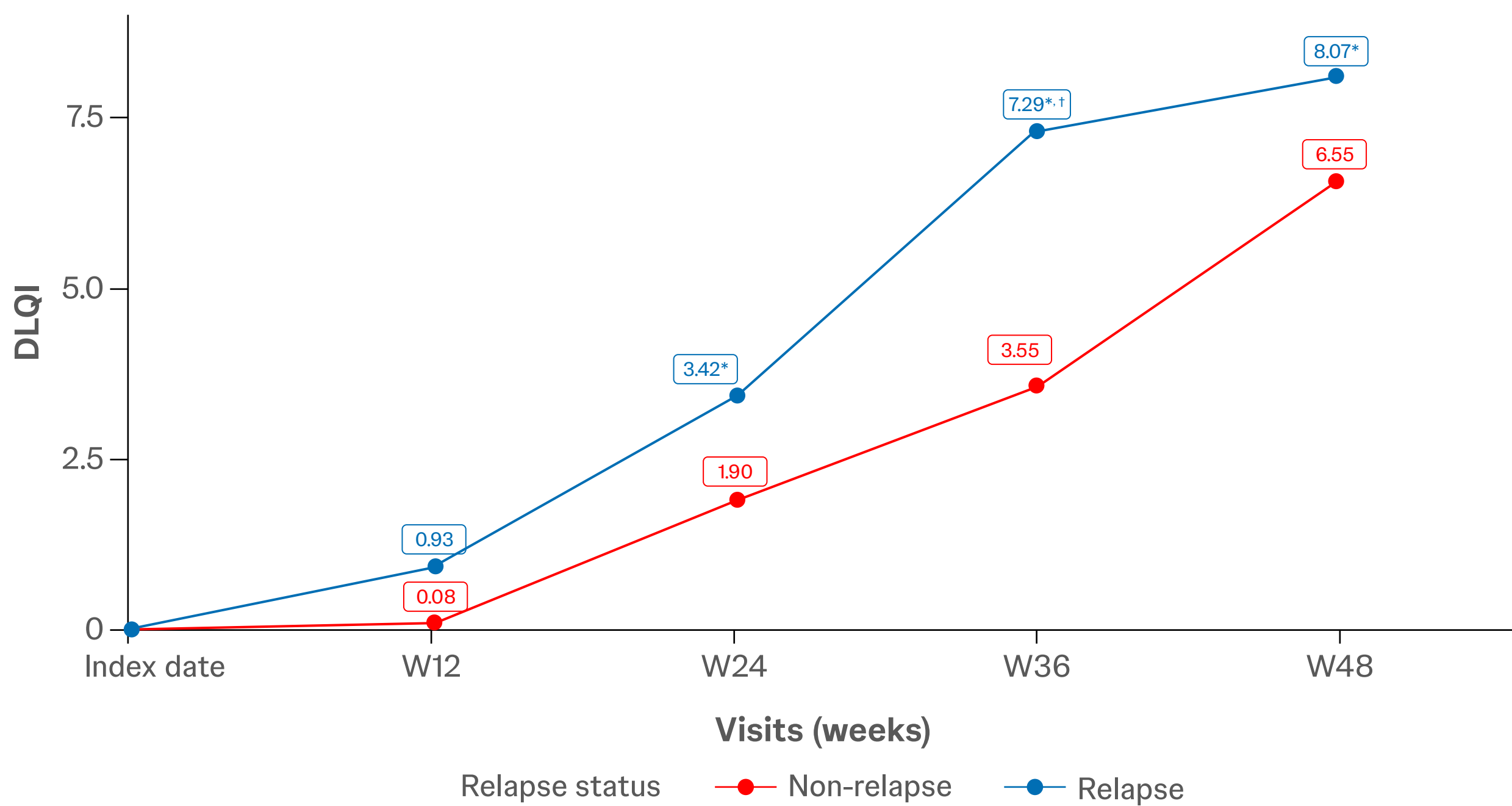
- Multivariate Cox regression analysis (**Figure 3**) showed:
 - an increased risk of relapse for patients with overweight status compared with those with normal body mass index (HR 1.813 [95% CI 1.021–3.217]; $P = 0.042$)
 - a numerically greater, but nonsignificant, risk for patients with obese status compared with those with normal body mass index (HR 1.811 [95% CI 0.991–3.311]; $P = 0.054$)
 - an increased risk of relapse for patients who received previous systemic treatment compared with those who received no prior systemic treatment (HR 1.915 [95% CI 1.163–3.154]; $P = 0.011$)
 - a numerically greater, but nonsignificant, risk of relapse for patients with a history of past biologic treatment compared with bio-naïve patients (HR 2.443 [95% CI 0.977–6.111]; $P = 0.056$)

Table 1: Demographic characteristics at the index date, by relapse status

	Relapse (n = 103)	Non-relapse (n = 140)
Demographics		
Age, years	Mean (SD)	41.7 (13.0)
	Range	19–74
Male, n (%)	90 (87.4)	104 (74.3)
BMI, n (%)	Underweight (BMI < 18.5 kg/m ²)	1 (1.0)
	Normal (18.5 ≤ BMI < 24 kg/m ²)	32 (31.1)
	Overweight (24 ≤ BMI < 28 kg/m ²)	43 (41.7)
	Obese (BMI ≥ 28 kg/m ²)	27 (26.2)
Family history of psoriasis, n (%)	16 (15.5)	16 (11.4)
Treatment history*, n (%)	Phototherapy	53 (51.5)
	Systemic treatment	70 (68.0)
	Biologics	6 (5.8)
		6 (4.3)

*Treatment history was based on the time of enrollment in the initial PAC study. Patients may have received ≥ 1 type of previous treatment. BMI, body mass index; SD, standard deviation.

Figure 2: Mean DLQI score over time, by relapse status



*Significant in visits; †Significant in relapse status visits. DLQI, Dermatology Life Quality Index; W, Week.

Figure 3: Effects of demographic and clinical characteristics on psoriasis relapse – multivariate Cox regression model

Demographic variables at the index date				Clinical variables at the index date			
		HR (95% CI)	P value			HR (95% CI)	P value
Age		0.989 (0.968–1.012)	0.349	PASI score	Mild (PASI < 3)	Ref	Ref
					Moderate (3 ≤ PASI < 10)	1.551 (0.543–4.428)	0.413
	BMI, kg/m²			DLQI	0 or 1 no effect at all on patient's life	Ref	Ref
	Underweight (BMI < 18.5)	0.297 (0.039–2.291)	0.244		2–5 small effect on patient's life	1.303 (0.767–2.211)	0.327
	Normal (18.5 ≤ BMI < 24)	Ref	Ref		6–10 moderate effect on patient's life	0.255 (0.078–0.838)	0.024
	Overweight (24 ≤ BMI < 28)	1.813 (1.021–3.217)	0.042		11–20 very large effect on patient's life	0.832 (0.245–2.826)	0.769
	Obese (BMI ≥ 28)	1.811 (0.991–3.311)	0.054	IGA score	0 – Clear	Ref	Ref
Gender	Male	Ref	Ref		1 – Almost clear	1.037 (0.622–1.728)	0.890
	Female	0.566 (0.275–1.165)	0.122		2 – Mild	1.200 (0.422–3.412)	0.732
Smoking status	No	Ref	Ref				
	Yes	0.896 (0.529–1.520)	0.684				
Drinking status	No	Ref	Ref				
	Yes	1.450 (0.817–2.575)	0.204				
Past treatment status	No	Ref	Ref				
	Systemic treatment	1.915 (1.163–3.154)	0.011				
	Yes	1.915 (1.163–3.154)	0.011				
	No	Ref	Ref				
	Yes	2.443 (0.977–6.111)	0.056				
Biologics	No	Ref	Ref				
	Yes	2.443 (0.977–6.111)	0.056				
Family history of psoriasis	No	Ref	Ref				
	Yes	1.763 (0.943–3.298)	0.076				

BMI, body mass index; CI, confidence interval; DLQI, Dermatology Life Quality Index; HR, hazard ratio; IGA, Investigator Global Assessment; PASI, Psoriasis Area and Severity Index.

PRESENTED BY: B Yang at the EADV Congress 2025, September 17–20, 2025; Paris, France.

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