

Patient Preferences for Systemic Psoriasis Treatments: Initial Findings from a Multi-Country Discrete Choice Experiment



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Background

As systemic treatment options for moderate-to-severe psoriasis (PsO) continue to expand,¹ understanding how patients prioritize different treatment attributes is increasingly important to inform patient-centered treatment decision-making.

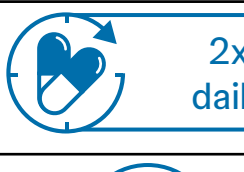
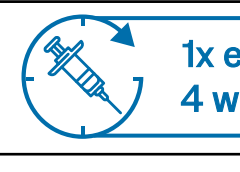
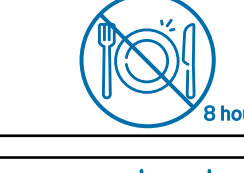
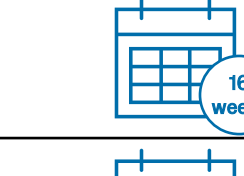
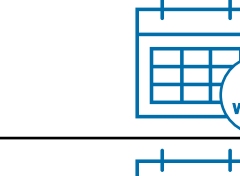
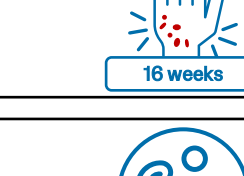
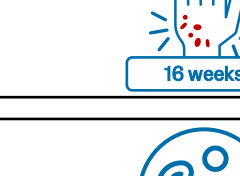
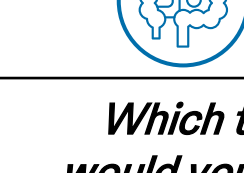
Objectives

- This study used a discrete choice experiment (DCE) to quantify patient preferences for key attributes of systemic PsO treatments and assess how these attributes influence treatment choices.
- Initial findings from the multi-country study provide early insights into the treatment characteristics that matter most to patients.

Methods

- ENCOMPASS Patient Preference (ENCOMPASS-PP) is a multi-country DCE developed following ISPOR Good Research Practices.²⁻⁴
- The DCE was developed through a targeted literature review, multidisciplinary steering committee input, and combined concept-elicitation/cognitive patient interviews.^{5,6}
- Participants included adults with PsO in Australia, the UK, and the US who met International Psoriasis Council criteria for systemic treatment eligibility.
- Participants were recruited using physician referrals, recruiter databases, research panels, social media, and patient advocacy groups.
- Participants completed seven experimentally designed choice tasks. Each task contained two hypothetical systemic treatment profiles described according to seven attributes: skin clearance at 16 and 52 weeks; itch control at 16 weeks; annual risks of infection and gastrointestinal symptoms; treatment administration (mode and frequency); and fasting requirements (Figure 1).
- An exploratory follow-up scenario assessed whether participants would retain their initially preferred treatment if it carried a 10% annual risk of acne vs an alternative with no acne risk.
- Preferences were estimated using a multinomial logit model. Relative Attribute Importance (RAI) was calculated to represent the percentage of participants' decisions that were determined by each attribute over the included level ranges.

Figure 1: Example Discrete Choice Experiment

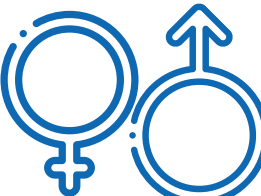
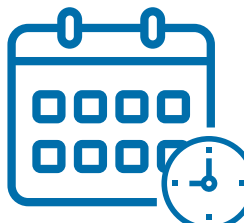
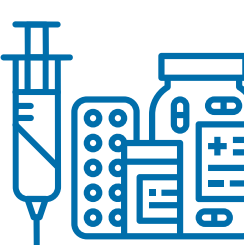
Treatment A		Treatment B	
 2x daily	Oral pill, twice daily	 1x every 4 weeks	Injection, every 4 weeks
 30 mins	Treatment must be taken on an empty stomach. After taking medication patients must wait 30 mins before eating.		No intake requirements
 16 weeks	50 out of 100 people (50%) have <i>complete or nearly complete skin clearance</i> at 16 weeks	 16 weeks	30 out of 100 people (30%) have <i>complete or nearly complete skin clearance</i> at 16 weeks
 52 weeks	70 out of 100 people (70%) have <i>complete or nearly complete skin clearance</i> at 52 weeks	 52 weeks	50 out of 100 people (50%) have <i>complete or nearly complete skin clearance</i> at 52 weeks
 16 weeks	65 out of 100 people (65%) have <i>itch control</i> at 16 weeks	 16 weeks	55 out of 100 people (55%) have <i>itch control</i> at 16 weeks
	5 out of 100 people (5%) have an <i>infection</i> in a given year		15 out of 100 people (15%) have an <i>infection</i> in a given year
	10 out of 100 people (10%) have <i>gastrointestinal symptoms</i> in a given year		25 out of 100 people (25%) have <i>gastrointestinal symptoms</i> in a given year
Which treatment would you choose?			

Results

Study Population

- Participants had a mean age of 44.8 years, and most (84.6%) had PsO affecting at least 5% of body surface area; 52.0% had been diagnosed more than 3 years previously. Topical and oral treatments were the most commonly reported current treatments (68.3% and 46.5%, respectively) and previous treatments (63.9% and 39.6%, respectively) (Figure 2).

Figure 2. Participant Characteristics

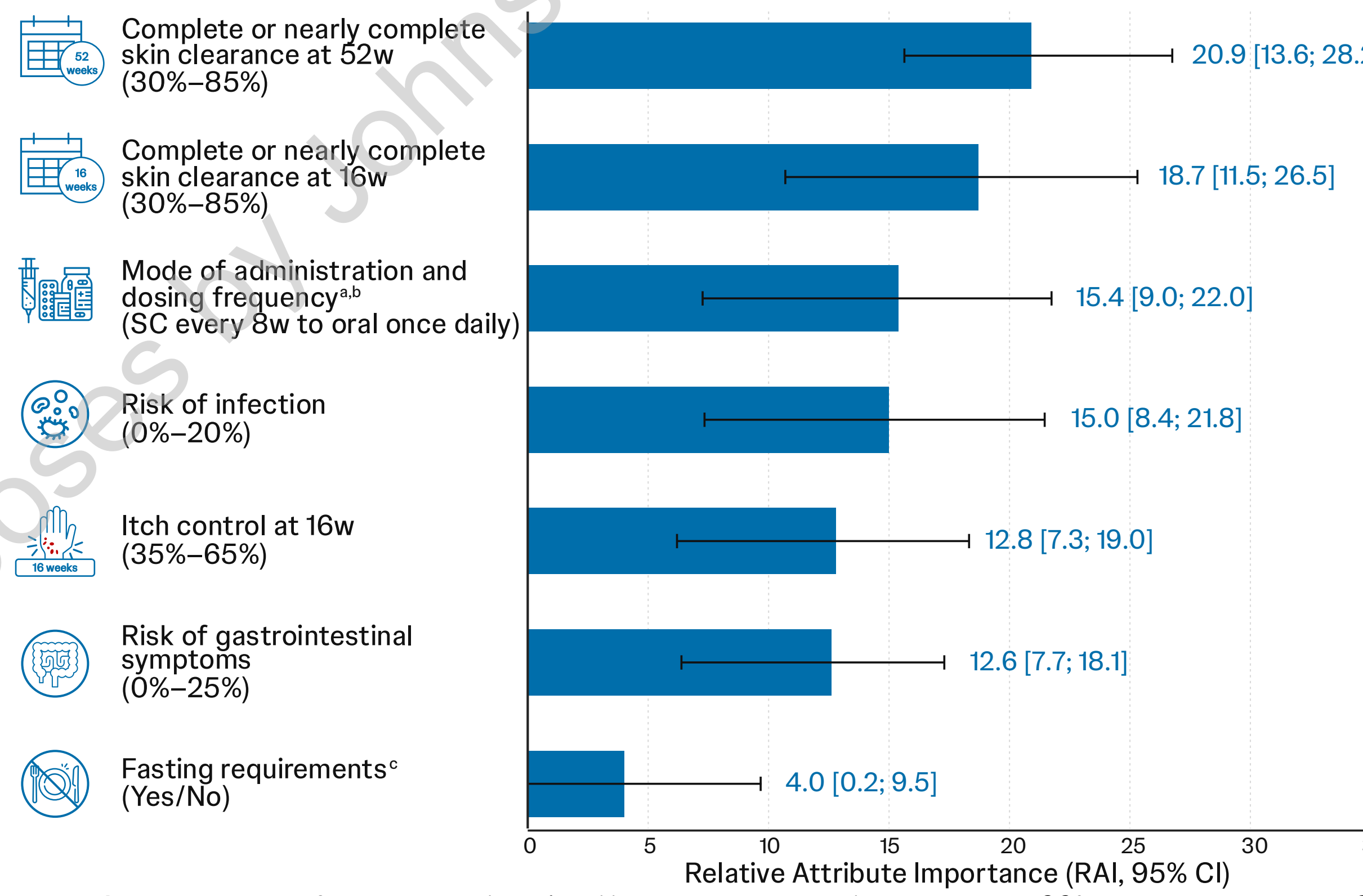
	 Overall (N=202)	 United Kingdom (N=81; 40.1%)	 United States (N=68; 33.7%)	 Australia (N=53; 26.2%)	
AVERAGE AGE (YEARS)					
	Mean (SD)	44.8 (9.9)	45.1 (10.6)	43.4 (9.3)	46.2 (9.4)
	Min–Max	18.0–65.0	18.0–64.0	22.0–65.0	24.0–65.0
	Median (Q1–Q3)	44.5 (39.0–51.8)	45.0 (39.0–53.0)	42.0 (38.0–48.2)	46.0 (40.0–52.0)
SEX AT BIRTH					
	Male	119 (58.9%)	42 (51.9%)	45 (66.2%)	32 (60.4%)
	Female	83 (41.1%)	39 (48.1%)	23 (33.8%)	21 (39.6%)
TIME SINCE PSORIASIS DIAGNOSIS					
	Less than 1 year ago	28 (13.9%)	13 (16.0%)	11 (16.2%)	4 (7.5%)
	1 – 3 years	68 (33.7%)	21 (25.9%)	18 (26.5%)	29 (54.7%)
	4 – 5 years	50 (24.8%)	13 (16.0%)	25 (36.8%)	12 (22.6%)
	>5 years	55 (27.2%)	33 (40.7%)	14 (20.6%)	8 (15.1%)
	Unknown/not sure	1 (0.5%)	1 (1.2%)	0 (0.0%)	0 (0.0%)
BODY SURFACE AREA AFFECTED					
	<2%	5 (2.5%)	4 (4.9%)	1 (1.5%)	0 (0.0%)
	2% to 4%	26 (12.9%)	10 (12.3%)	7 (10.3%)	9 (17.0%)
	5% to 6%	83 (41.1%)	39 (48.1%)	26 (38.2%)	18 (34.0%)
	7% to 9%	56 (27.7%)	18 (22.2%)	16 (23.5%)	22 (41.5%)
	10% or more	32 (15.8%)	10 (12.3%)	18 (26.5%)	4 (7.5%)
CURRENT TREATMENTS*					
	Biologic treatment	68 (33.7%)	22 (27.2%)	24 (35.3%)	22 (41.5%)
	Oral treatment	94 (46.5%)	24 (29.6%)	46 (67.6%)	24 (45.3%)
	Topical treatment	138 (68.3%)	66 (81.5%)	44 (64.7%)	28 (52.8%)
	Phototherapy	17 (8.4%)	10 (12.3%)	4 (5.9%)	3 (5.7%)
PREVIOUS TREATMENTS*					
	Biologic treatment	20 (9.9%)	11 (13.6%)	5 (7.4%)	4 (7.5%)
	Oral treatment	80 (39.6%)	23 (28.4%)	29 (42.6%)	28 (52.8%)
	Topical treatment	129 (63.9%)	49 (60.5%)	42 (61.8%)	38 (71.7%)
	Phototherapy	49 (24.3%)	17 (21.0%)	18 (26.5%)	14 (26.4%)
	No previous treatment	37 (18.3%)	18 (22.2%)	12 (17.6%)	7 (13.2%)

Abbreviations: Q1= First quartile; Q3= Third quartile; SD= Standard deviation
*Answers are not mutually exclusive

Key Drivers of Treatment Preference

- Chance of skin clearance at 52 weeks and 16 weeks were the most influential treatment characteristics (RAI: 20.9% and 18.7%, respectively; Figure 3). Followed by mode of administration (RAI 15.4%).

Figure 3. Patient Insights from Qualitative Survey Pretesting Interviews

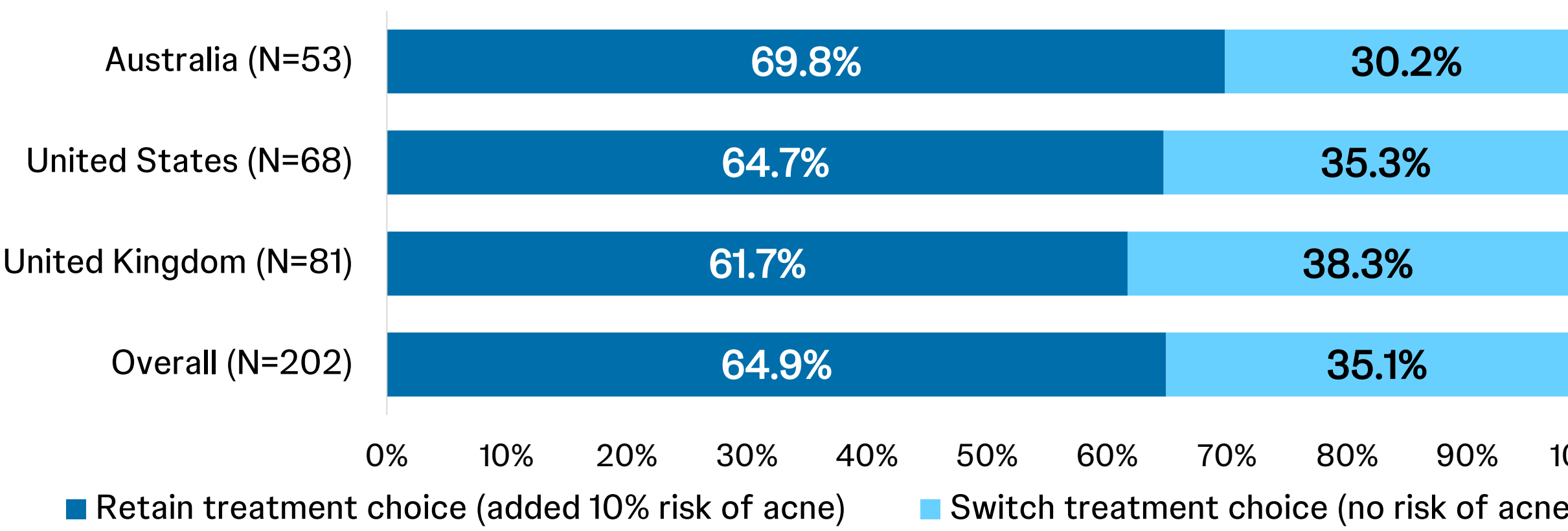


Note: RAI was calculated from each attribute's utility range and normalized to sum to 100%; error bars represent 95% CIs. RAI is conditional on the attributes included and the level ranges for each attribute.
^a Mode of administration and dosing frequency were combined and represented as six levels: oral (once or twice daily) and SC injection (every 4, 8, 12, or 16 weeks); ^b Range is calculated from least preferred SC though there was no statistically significant difference between SC levels; ^c Fasting requirement: none versus fasting plus a 30-minute wait before eating.
Abbreviations: CI = confidence interval; RAI = relative attribute importance; SC = subcutaneous.

Impact of Acne Risk on Treatment Choice

- When a 10% risk of moderate-to-severe acne was added to participants' initially preferred treatment, 64.9% (131/202) retained their original choice, whereas 35.1% (71/202) changed to the alternative with no acne risk (Figure 4).

Figure 4. Impact of a 10% Risk of Moderate-to-severe Acne on Treatment Switching



Note: In a follow-up question, a 10% risk of moderate-to-severe acne was added to participants' initially selected treatment, while the alternative had no acne risk. Participants then chose whether to maintain the initial choice of treatment even with the added risk of acne, or switch to the treatment without acne risk. Results are descriptive; no between-country statistical comparisons were performed.

Conclusions

- Efficacy was the strongest driver of treatment preference, with patients placing similar importance on skin clearance at 16 and 52 weeks.
- Route of administration was an important determinant of treatment choice. Qualitative findings suggest that oral treatments were often perceived as more convenient than injections.
- Fasting requirements had relatively little impact on treatment preference.
- Acne risk meaningfully influenced treatment decisions; 35% of patients would change their initially preferred treatment if a 10% acne risk were introduced.
- Findings support incorporating patient preferences into treatment decision-making and future therapy development.

Treatment Administration Characteristics

- Mode of administration was an important driver of treatment choice (RAI=15.4%).
 - Patients preferred once- or twice-daily oral treatment over SC injection every 16 weeks
 - SC injection frequency did not significantly influence treatment choice across the 4-, 8-, 12-, and 16-week dosing intervals evaluated.
- Fasting requirements had the smallest influence on treatment choice (RAI=4.0%), with no statistically significant difference versus no fasting requirement.

Contextualizing Mode and Frequency of Administration Preferences

- Qualitative pretesting interviews conducted with patients provided insights that can support the interpretation of quantitative results.
- In the DCE, mode of administration and frequency were incorporated as a single attribute to ensure that no implausible combinations were presented in choice tasks.
- Illustrative quotes in Figure 5 provide patient perspectives on mode of administration and frequency, describing how these two concepts influence preferences individually and in combination.

Figure 5. Qualitative Interview Quotes Supportive of Quantitative Findings

Oral administration was preferred over injections

Interviews indicated that oral treatments were often viewed as more convenient than injections, with participants citing avoidance of needles, injection-site reactions, storage requirements, travel, and clinic visits.

- If I could take a pill, I think that would be better because it's better than poking myself. [US003](#)
- With the injections, I often got big bruises or lumps on my legs... With the tablets, it's just hassle-free. [DE004](#)
- I'd take the oral treatment. I feel like it's almost easier to include in my daily, you know, ritual, if you want to call it that. But my daily you know-I take tablets, you know, often so it's almost easier to just take another one [...] taking the tablet is almost quicker and easier, I would say. [AU004](#)

Mode of administration was an important factor influencing choice

Patient interviews suggested that injectable treatments are associated with additional treatment burden.

- I would be open to that idea, though I am not a fan of needles in the first place. [JP004](#)
- I'd be more open to it. Absolutely. But... that's still... a bit more of a hassle than taking a tablet... I'd need to make sure that I'm disposing of my sharps correctly. [AU007](#)

Fasting requirements had limited overall influence, although acceptability varied

- Yes, of course, no problem. If the benefit outweighs everything else, yes, absolutely. I'd be 100% on board. [FR008](#)
- Yes, I would have no problem. Taking it ... half an hour before having breakfast is not a problem for me. [IT004](#)