

# **Efficacy and Safety of Ruxolitinib Cream Among Patients Aged $\geq 65$ Years With Atopic Dermatitis: Pooled Results From Two Phase 3 Studies (TRuE-AD1 and TRuE-AD2)**

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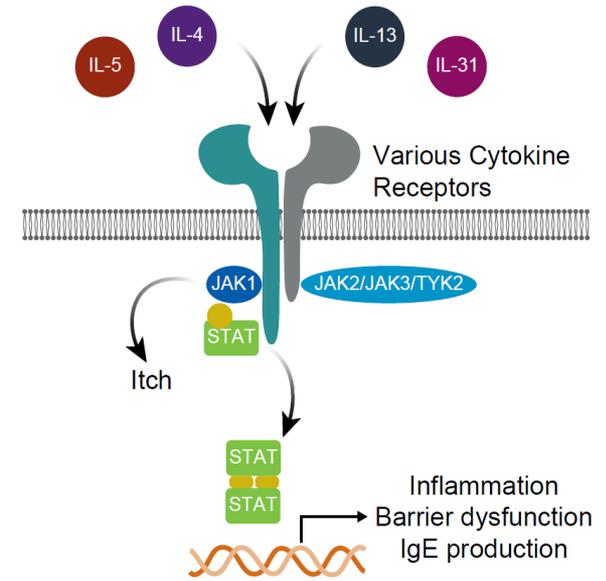
# Presenting Author Disclosures

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- JCS has served as an advisor for AbbVie, LEO Pharma, Menlo Therapeutics, Novartis, Pierre Fabre, and Trevi; has received speaker honoraria from AbbVie, Eli Lilly, Janssen-Cilag, LEO Pharma, Novartis, Sanofi-Genzyme, and Sun Pharma; and has received clinical trial funding from AbbVie, Almirall, Amgen, Galapagos, Holm, Incyte Corporation, InflaRX, Janssen-Cilag, Menlo Therapeutics, Merck, Novartis, Pfizer, Regeneron, Trevi, and UCB

# JAK-Targeted Therapy for Atopic Dermatitis

- Atopic dermatitis (AD) is a highly pruritic inflammatory skin disease<sup>1</sup>
- Janus kinases (JAKs) act downstream of proinflammatory cytokines and itch mediators involved in AD pathogenesis<sup>1,2</sup>
- Ruxolitinib cream is a topical formulation of ruxolitinib, a selective inhibitor of JAK1 and JAK2<sup>3</sup>
- In two phase 3 AD studies of identical design, ruxolitinib cream demonstrated sustained anti-inflammatory activity with antipruritic action vs vehicle and was well tolerated<sup>4</sup>
- Published literature describing patients  $\geq 65$  years of age with AD is limited
- **Objective:** To evaluate the efficacy and safety of ruxolitinib cream (RUX) using pooled data from two phase 3 AD studies in patients aged  $\geq 65$  years with AD

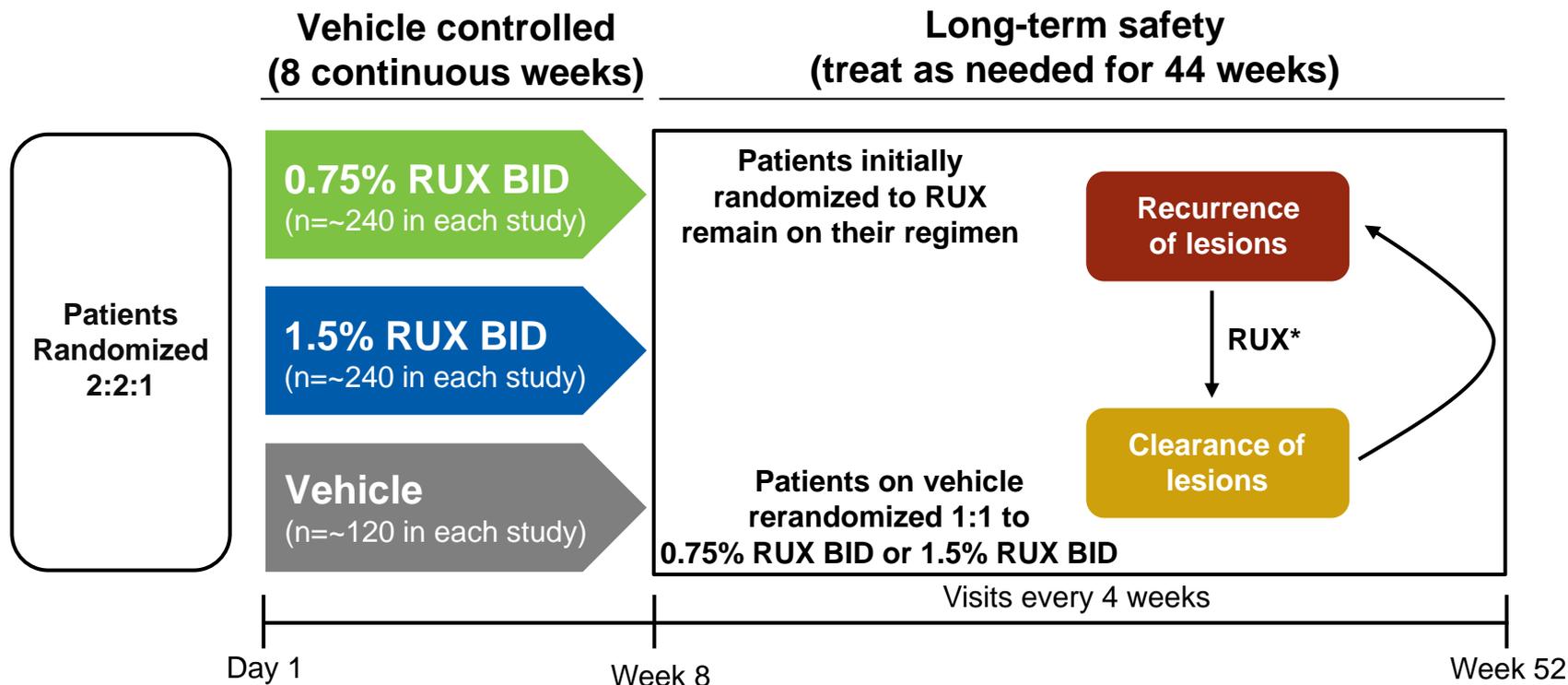


Reproduced from Kim BS, et al. 2020.<sup>5</sup> Use of this figure is permitted under the terms of the Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by-nc-nd/4.0/>); no changes to this figure have been made.

IgE, immunoglobulin E; IL, interleukin; STAT, signal transducer and activator of transcription; TYK2, tyrosine kinase 2.

1. Bao L, et al. *JAKSTAT*. 2013;2(3):e24137; 2. Oetjen LK, et al. *Cell*. 2017;171(1):217-228; 3. Quintas-Cardama A, et al. *Blood*. 2010;115(15):3109-3117; 4. Papp K, et al. *J Am Acad Dermatol*. 2021:doi:10.1016/j.jaad.2021.04.085. [Epub ahead of print]; 5. Kim BS, et al. *J Allergy Clin Immunol*. 2020;145(2):572-582.

# Study Design



BID, twice daily; BSA, body surface area; RUX, ruxolitinib cream.

\* Patients self-evaluated recurrence of lesions between study visits and treated lesions with active AD ( $\leq 20\%$  BSA). If lesions cleared between study visits, patients stopped treatment 3 days after lesion disappearance. If new lesions were extensive or appeared in new areas, patients contacted the investigator to determine if an unscheduled additional visit was needed.

# Overall Study Endpoints\*

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- **Primary Endpoint**

- Proportion of patients achieving IGA-TS (score of 0 or 1 with  $\geq 2$ -grade improvement from baseline) at Week 8

- **Key Secondary Endpoints**

- Proportion of patients achieving  $\geq 75\%$  improvement in EASI score (EASI-75) at Week 8 vs baseline
- Proportion of patients with a  $\geq 4$ -point improvement in itch NRS score (NRS4) at Week 8 vs baseline
- Proportion of patients with a  $\geq 6$ -point improvement in the PROMIS Short Form sleep disturbance (8b) 24-hour recall score at Week 8

- **Additional Secondary Endpoint**

- Proportion of patients achieving  $\geq 50\%$  and  $\geq 90\%$  improvement in EASI score (EASI-50 and EASI-90) at Week 8 vs baseline

# Eligibility Criteria

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- **Key Inclusion Criteria**

- Patients aged  $\geq 12$  years with AD  $\geq 2$  years
- IGA score of 2 or 3
- 3%–20% affected BSA

- **Key Exclusion Criteria**

- Unstable course of AD
- Other types of eczema
- Immunocompromised status
- Any serious illness/medical condition that could interfere with study conduct, interpretation of data, or patient's well-being
- Use of AD systemic therapies during the washout period or during the study
- Use of AD topical therapies (except bland emollients) during the washout period or during the study

# Demographics Among Patients Aged $\geq 65$ Years

- 1249 patients (median [range] age, 32.0 [12–85] years) were enrolled in both studies
  - 115 (9.2%) patients were aged  $\geq 65$  years
- Distribution of baseline demographics was similar across treatment groups

Demographic Characteristic	Vehicle (n=26)	0.75% RUX (n=50)	1.5% RUX (n=39)	Total (N=115)
Age, median (range), y	70.0 (65–82)	69.0 (65–85)	70.0 (65–85)	70.0 (65–85)
65–74, n (%)	20 (76.9)	42 (84.0)	34 (87.2)	96 (83.5)
75–84, n (%)	6 (23.1)	7 (14.0)	4 (10.3)	17 (14.8)
$\geq 85$ , n (%)	0	1 (2.0)	1 (2.6)	2 (1.7)
Female, n (%)	16 (61.5)	30 (60.0)	18 (46.2)	64 (55.7)
Race, n (%)				
White	22 (84.6)	38 (76.0)	35 (89.7)	95 (82.6)
Black	3 (11.5)	8 (16.0)	4 (10.3)	15 (13.0)
Asian	1 (3.8)	4 (8.0)	0	5 (4.3)
Region, n (%)				
North America	24 (92.3)	44 (88.0)	32 (82.1)	100 (87.0)
Europe	2 (7.7)	6 (12.0)	7 (17.9)	15 (13.0)

# Baseline Clinical Characteristics Among Patients Aged $\geq 65$ Years

- Distribution of baseline clinical characteristics was similar across treatment groups

Clinical Characteristic	Vehicle (n=26)	0.75% RUX (n=50)	1.5% RUX (n=39)	Total (N=115)
BSA, mean (SD), %	7.4 (3.7)	9.7 (5.5)	8.7 (4.8)	8.8 (4.9)
Baseline EASI, mean (SD)	6.9 (2.8)	7.9 (5.1)	8.1 (5.4)	7.7 (4.7)
Baseline IGA, n (%)				
2	5 (19.2)	14 (28.0)	12 (30.8)	31 (27.0)
3	21 (80.8)	36 (72.0)	27 (69.2)	84 (73.0)
Itch NRS score, mean (SD)*	5.4 (2.4)	5.2 (2.3)	4.9 (2.5)	5.1 (2.4)
Itch NRS score $\geq 4$ , n (%)*	17 (65.4)	36 (72.0)	27 (69.2)	80 (69.6)
PROMIS sleep disturbance, mean (SD) <sup>†‡</sup>	19.2 (6.7)	19.3 (5.1)	20.4 (6.4)	19.7 (5.9)
Duration of disease, median (range), y	19.7 (0.8–79.1)	28.8 (1.8–68.8)	10.2 (0–69.2)	19.8 (0–79.1)
Facial involvement, n (%)	7 (26.9)	13 (26.0)	7 (17.9)	27 (23.5)
Number of flares in last 12 mo, mean (SD)	4.5 (5.5)	4.8 (4.5)	6.7 (15.9)	5.4 (10.0)

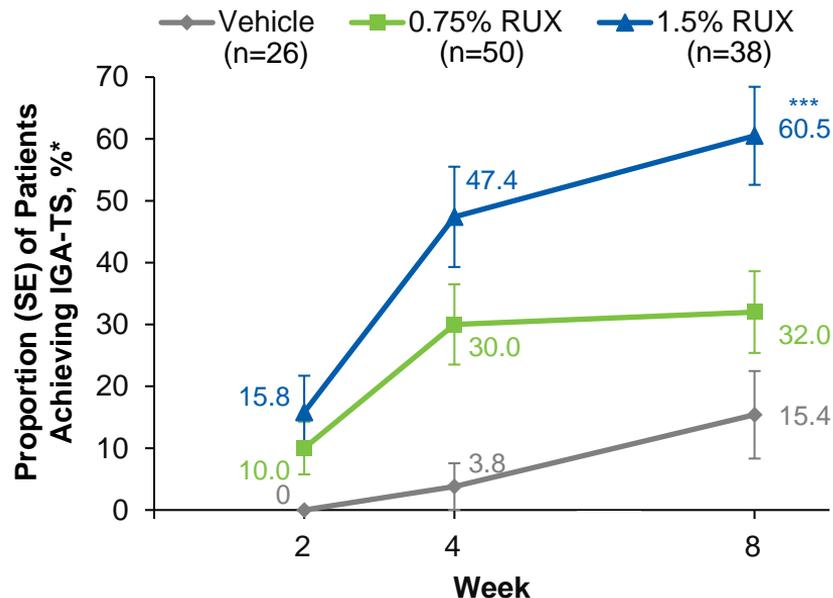
\* Data missing from 4 patients (vehicle, n=2; 0.75% RUX, n=1; 1.5% RUX, n=1).

<sup>†</sup> Data missing from 5 patients (vehicle, n=1; 0.75% RUX, n=4).

<sup>‡</sup> Raw scores.

# Proportion of Patients Aged $\geq 65$ Years Achieving IGA-TS

- Substantially more patients achieved IGA-TS at Week 8 with 0.75% and 1.5% ruxolitinib cream vs vehicle (32.0% and 60.5% vs 15.4%, respectively)

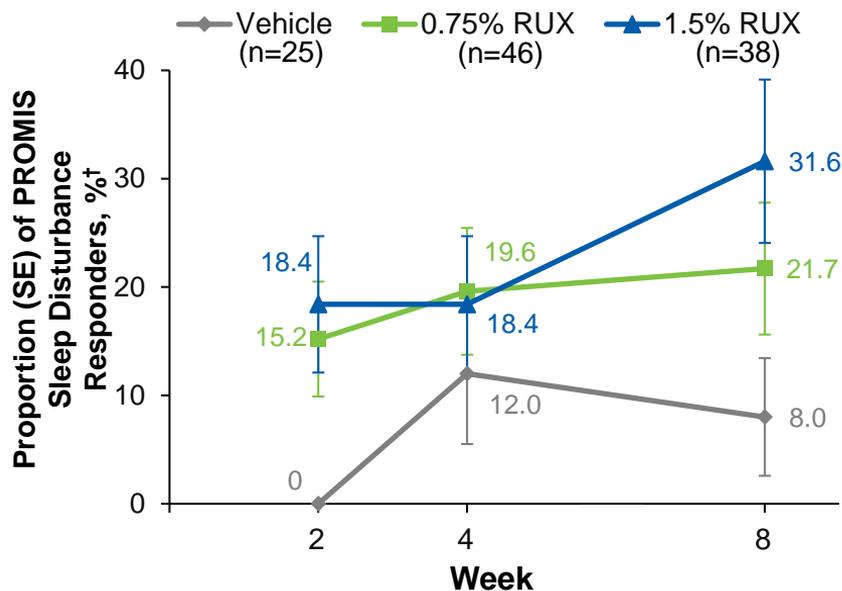
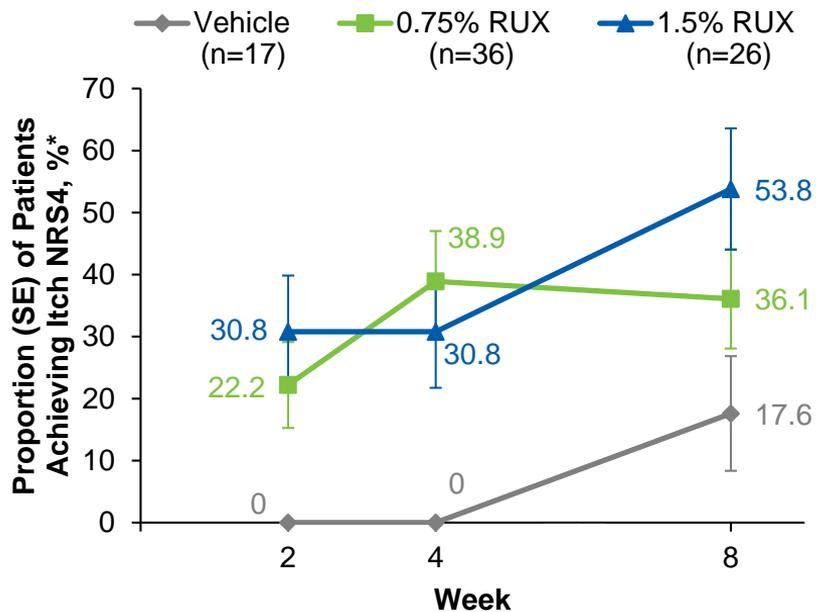


\* Defined as patients achieving an IGA score of 0 or 1 with an improvement of  $\geq 2$  points from baseline. Patients with missing post-baseline values were imputed as nonresponders at Weeks 2, 4, and 8.

\*\*\*  $P < 0.001$  from Fisher exact test.

# Clinically Meaningful Improvement in Itch NRS and PROMIS Sleep Disturbance Score in Patients Aged $\geq 65$ Years

- More patients who applied either 0.75% or 1.5% ruxolitinib cream demonstrated clinically meaningful improvement in itch (itch NRS4) and PROMIS sleep disturbance ( $\geq 6$ -point improvement) vs vehicle at Week 8

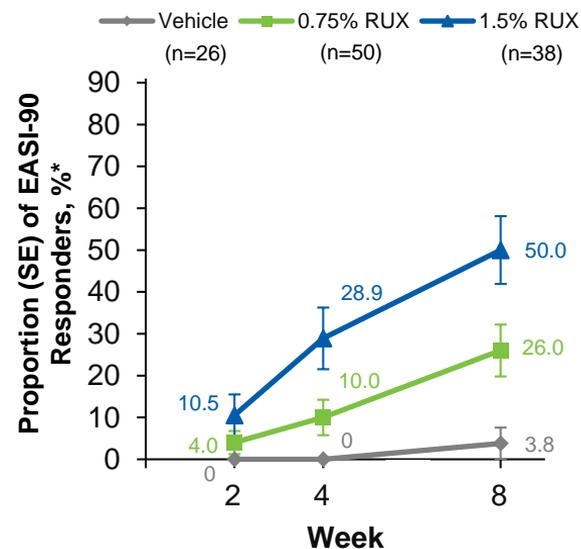
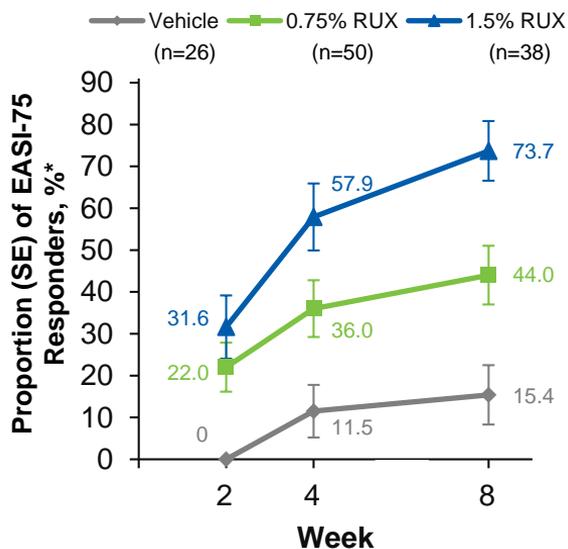
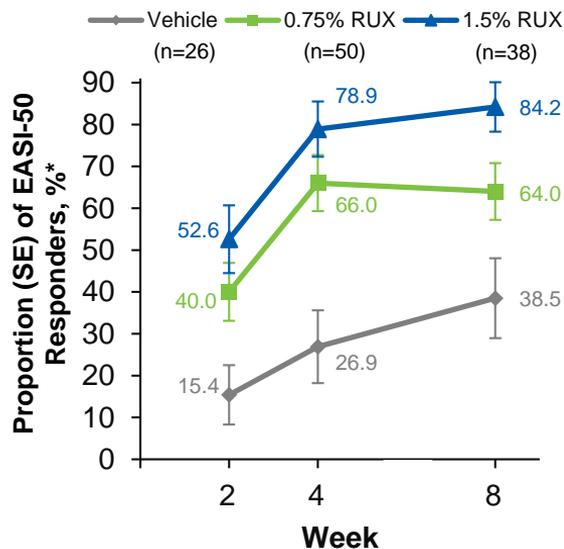


\* Patients in the analysis had an itch NRS score  $\geq 4$  at baseline. Patients with missing post-baseline values were imputed as nonresponders at Weeks 2, 4, and 8.

† Defined as a  $\geq 6$ -point improvement from baseline in the PROMIS sleep disturbance score 8(b). Patients with missing post-baseline values were imputed as nonresponders at Weeks 2, 4, and 8.

# Proportion of Patients Aged $\geq 65$ Years Achieving EASI-50, -75, and -90

- Substantially more patients applying 0.75% and 1.5% ruxolitinib cream achieved EASI-50 (64.0% and 84.2% vs 38.5%), EASI-75 (44.0% and 73.7% vs 15.4%), and EASI-90 (26.0% and 50.0% vs 3.8%) at Week 8 vs vehicle



\* Patients with missing post-baseline values were imputed as nonresponders at Weeks 2, 4, and 8.

# Safety in Patients Aged $\geq 65$ Years

- Ruxolitinib cream was well tolerated
- No serious AEs considered related to ruxolitinib cream were reported
- No TEAEs suggestive of systemic JAK inhibition were observed

n (%)	Vehicle (n=26)	0.75% RUX (n=50)	1.5% RUX (n=39)
Patients with TEAE	7 (26.9)	16 (32.0)	13 (33.3)
Most common TEAEs*			
Application site pain	1 (3.8)	1 (2.0)	2 (5.1)
Bronchitis	0	2 (4.0)	1 (2.6)
Basal cell carcinoma	0	2 (4.0)	0
Patients with treatment-related AE	1 (3.8)	2 (4.0)	2 (5.1)
Patients with application site reaction	1 (3.8)	1 (2.0)	2 (5.1)
Patients who discontinued due to a TEAE	0	2 (4.0)	1 (2.6)
Patients with serious TEAE <sup>†</sup>	0	1 (2.0)	1 (2.6)

TEAE, treatment-emergent adverse event.

\* Defined as  $\geq 2$  patients in any treatment group.

<sup>†</sup> No serious TEAEs were considered related to treatment with ruxolitinib cream.

# Conclusions

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- Ruxolitinib cream demonstrated considerable anti-inflammatory and antipruritic effects in patients aged  $\geq 65$  years with AD
  - Substantially greater efficacy was observed with ruxolitinib cream vs vehicle
- The AE profile was similar to vehicle; the rate of application site reactions was low
- The overall efficacy and safety profile of ruxolitinib cream in patients aged  $\geq 65$  years with AD was comparable to the overall patient population<sup>1</sup>
- These results demonstrate the potential of ruxolitinib cream as an effective and well-tolerated topical treatment for patients aged  $\geq 65$  years with AD