Skin Disease Education Foundation's

41st Annual Hawaii Dermatology Seminar™

Grand Wailea Hotel, Wailea, Maui, Hawaii; January 29–February 3, 2017

PA-01: A phase 2, multicenter, double-blind, randomized, vehicle-controlled clinical study to assess the safety and efficacy of a halobetasol/tazarotene fixed combination in the treatment of plaque psoriasis

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BACKGROUND: Psoriasis is a chronic, immune-mediated disease that varies widely in its clinical expression. Treatment options focus on relieving symptoms, reducing inflammation, induration, and scaling, and controlling the extent of the disease. The mainstay of psoriasis treatment is a topical corticosteroid; however, long-term safety remains a concern, particularly with the more potent formulations. Combination therapy with a corticosteroid and tazarotene may afford relief from inflammation, and a reduction in adverse events, such as skin atrophy.
OBJECTIVE: To investigate the efficacy and safety of a once daily application of a fixed combination halobetasol propionate 0.01% and tazarotene 0.045% (HP/TAZ) Lotion in comparison with its monads and vehicle in subjects with moderate or severe plaque psoriasis.
METHODS: Multicenter, randomized, double-blind, vehicle-controlled Phase 2 study in moderate or severe psoriasis (N = 212). Subjects randomized (2:2:2:1 ratio) to receive HP/TAZ, individual monads, or vehicle, once-daily for 8 weeks. Efficacy assessments included treatment success (defined as at least a 2-grade improvement from baseline in the IGA score and a score of 'clear' or 'almost clear'), and impact on individual signs of psoriasis at the target lesion. Safety and treatment emergent adverse events (TEAEs) was evaluated throughout.
RESULTS: HP/TAZ lotion demonstrated statistically significant superiority over vehicle as early as 2 weeks. At Week 8, 52.5% of subjects had treatment success compared with 33.3%, 18.6% and 9.7% in the HP ($P = .033$), TAZ ($P < .001$), and vehicle ($P < .001$) groups respectively. HP/TAZ lotion was superior to its monads and vehicle in reducing the psoriasis signs of erythema, plaque elevation, and scaling. At Week 8, treatment success was achieved by 54.2% of subjects for erythema, 67.8% for plaque elevation, and 64.4% for scaling. Most frequently reported TEAEs were application site reactions, and were more likely associated with the tazarotene component. Side effects such as skin atrophy were rare.
CONCLUSION: HP/TAZ lotion was consistently more effective than its monads or vehicle in achieving treatment success and reducing psoriasis signs of erythema, plaque elevation, and scaling at the target lesion. Safety data were consistent with the known safety profile of halobetasol propionate and tazarotene, and did not reveal any new safety concerns with the combination product.
CORRESPONDENCE: Linda Stein Gold; LSTEIN1@hfhs.org.
DISCLOSURES: L Stein Gold is an investigator, advisor and speaker for Valeant and Leo. J Sugarman is a Consultant and Principle investigator in research studies sponsored by Promius and Valeant Pharmaceuticals. Principle investigator in research studies sponsored by Leo Pharmaceuticals. D Pariser is a consultant for Bickel Biotechnology, consultant for Biofrotera AG, consultant for Celgene, consultant for Dermira, consultant for DUSA Pharmaceuticals, consultant/principal investigator for Leo Pharma, consultant for Novartis, advisor for Pfizer,consultant for Promius Pharmaceuticals, consultant for Regeneron, Consultant for TheraVida, consultant for Valeant, principle investigator for Abbott laboratories, Amgen, Bickel, Celgene, Eli Lilly, Leo, Novartis, Novo Nordisk, Ortho Dermatologics, Peplin, Pfizer, and received grants/research funding from Photocure ASA, Promius, Regeneron, Stiefel, and Valeant. R Pillai is an employee of Valeant Pharmaceuticals.

PA-02: A Phase 2b Study of Efficacy and Safety of SB204 Gel in the Treatment in Acne Vulgaris

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BACKGROUND: Results from a Phase 2b, multi-center, randomized, double-blind study comparing the efficacy, safety, and tolerability of a topical nitric oxide-releasing gel, SB204, to

1085-5629/13$-see front matter © 2016 Frontline Medical Communications
https://doi.org/10.12788/j.sder.2017.001

Vehicle in subjects with moderate to severe acne vulgaris are reported (NTC02242760).
METHODS: Subjects with moderate to severe acne were enrolled and randomized to receive SB204 2% BID, SB204 4% QD or BID, or Vehicle QD or BID for 12 weeks. A total of 213 subjects were randomized, 191 of whom completed the study.
RESULTS: All SB204 treatment groups had a greater least square mean percent reduction in both inflammatory ($P < .01$) and noninflammatory ($P < .05$) lesions from baseline to week 12 compared with the pooled vehicle group. In a time to event analysis, a difference in median inflammatory lesion count between SB204 4% once daily and Vehicle treated subjects was observed within 4 weeks. Once daily treatment with SB204 4% was as effective as twice daily dosing. There was a 6% difference in IGA "success" (score of "clear/almost clear" and > 2 grade change) favoring pooled SB204 versus Vehicle treated subjects. Overall SB204 exhibited good cutaneous tolerability at all concentrations and doses, with tolerability scores similar to vehicle treatment groups at all visits.
CONCLUSION: This study supports the safety and efficacy of SB204, and the selection of SB204 4% once daily for additional development in the treatment of acne vulgaris.
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DISCLOSURES: L Eichenfield reports grants and personal fees from Novan, outside the submitted work. L Stein-Gold has nothing to disclose. C Enloe reports other from Novan, Inc, during the conduct of the study; other from Novan, Inc, outside the submitted work; and Clinical Program Manager at Novan, Inc. M Dr. Rico reports other from Novan, Inc, during the conduct of the study; other from Novan, Inc, outside the submitted work; and Chief Medical Officer for Novan, Inc.

PA-03: An aqueous gel fixed combination of clindamycin phosphate 1.2% and benzoyl peroxide 3.75%: long-term use in adult females with moderate acne vulgaris

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OBJECTIVE: To evaluate long-term efficacy and safety of a fixed combination clindamycin phosphate 1.2% and benzoyl peroxide 3.75% (Clindamycin-BP 3.75%) aqueous gel in adult female subjects with moderate acne vulgaris.
METHODS: Total of 20 patients, 20-63 years of age (mean [SD] 38 ± 10) with moderate acne (IGA = 3) were treated with Clindamycin-BP 3.75% once-daily for 12 weeks. Patients who experienced ≥50% reduction in total lesion count continued treatment for a further 12 weeks. Mean (SD) percent reduction in lesion counts from baseline were assessed at Week 4, 8, 12, 18 and 24. In addition, patients who were 'clear' or 'almost clear' were reported at Week 12 and 24. Cutaneous tolerability (erythema, dryness, peeling, oiliness, pruritus, and burning) was assessed at baseline and each study visit.
RESULTS: Clindamycin-BP 3.75% demonstrated statistical significant improvement from baseline and between each visit. At Week 12, mean percent reduction in inflammatory and noninflammatory lesion counts was 70% and 58% respectively. Two patients failed to experience ≥50% lesion reduction by Week 12. At Week 24, mean percent reductions in inflammatory and noninflammatory lesion counts were 81% and 78%, and 72% of patients were 'clear' or 'almost clear'. Erythema (70% of patients) and oiliness (45%) were common at baseline. Severity of erythema dropped significantly by Week 12 ($P = .03$) and Week 24 ($P = .01$). Numbers of subjects experiencing oiliness dropped significantly ($P = .03$). Dryness, pruritus, burning, and peeling were not prevalent. There was one adverse event (sinus infection) that was not treatment-related.
CONCLUSION: Clindamycin-BP 3.75% demonstrates continued improvement in symptoms of moderate acne over 24 weeks, with good tolerability.
CORRESPONDENCE: Leon H Kircik, MD; wedoderm@bellsouth.net.
DISCLOSURES: L Kircik has served as an advisor and investigator for Valeant Pharmaceuticals. He also received funding from Leo, Valeant, PharmaDerm, and Aqua Pharmaceuticals either as an investigator, speaker, advisory board member.

PA-04: Assessing clinical response and minimal disease activity with the physician global assessment and body surface area composite tool: an analysis of apremilast phase 3 ESTEEM data

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BACKGROUND: The product of the static Physician Global Assessment (PGA) and body surface area (BSA; PGAxBSA) is a simple tool for quantitating psoriasis severity and clinical response to treatment.
OBJECTIVE: Define PGAxBSA score bands corresponding to clinical improvement categories based on Psoriasis Area and Severity Index (PASI) and Dermatology Life Quality Index (DLQI), and determine PGAxBSA-based criteria for minimal disease activity (MDA). These PGAxBSA-based MDA criteria can be used for treat to target strategies.
METHODS: Data from apremilast-treated patients in the ESTEEM studies (NCT01194219/NCT01232283) at Week 16 (n = 836) were used to assess PGAxBSA response equivalent to PASI-50/75/90, PASI-50+DLQI ≤5, and MDA (≥PASI-90+DLQI 0 or 1).
RESULTS: Patients (n = 202) achieving PASI-50 to <75 had a corresponding median/interquartile range (IQR) PGAxBSA of 18.0/(10.0-30.0) and 16.0/(8.7-27.0) (ESTEEM 1 and 2, respectively). PASI-50+DLQI ≤5 corresponded with median/

IQR PGAxBSA of 6.0/(2.0-14.4) and 4.1/(2.0-14.0) in ESTEEM 1 and 2, respectively. Patients achieving PASI-75 to <90 had a median/IQR PGAxBSA of 4.8/(3.0-10.0) and 4.0/(2.2-6.5) in ESTEEM 1 and 2, respectively; those achieving ≥PASI-90, 1.0/(0.2-2.1) and 1.0/(0.0-3.3) in ESTEEM 1 and 2, respectively. Patients achieving MDA had median/IQR PGAxBSA scores of 1.0/(0.0-2.0) and 1.0/(0.0-3.0) in the 2 studies.

LIMITATIONS: ESTEEM enrolled only patients with moderate to severe plaque psoriasis.

CONCLUSION: In apremilast-treated patients with moderate to severe psoriasis, the simple PGAxBSA tool is sensitive to change in disease severity. PGAxBSA was able to measure meaningful clinical response and MDA of psoriasis patients in the ESTEEM trials.

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DISCLOSURES: A Gottlieb has been a consultant and/or advisory board member for Amgen Inc, Astellas, Akros, Centocor (Janssen), Inc, Celgene Corporation, Bristol-Myers Squibb Co, Beiersdorf, Inc, Abbott Labs (AbbVie), Teva, Actelion, UCB, Novo Nordisk, Novartis, Dermipsor Ltd, Incyte, Pfizer, Can-Fite, Lilly, Coronado, Vertex, Karyopharm, CSL Behring Biotherapies for Life, GlaxoSmithKline, XenoPort, Catabasis, Meiji Seika Pharma Co, Ltd, Takeda, Mitsubishi Tanabe Pharma Development America, Inc, Genentech, Baxalta, and Kineta One; and received research/educational grants paid to Tufts Medical Center from Centocor (Janssen), Amgen, Abbott (AbbVie), Novartis, Celgene Corporation, Pfizer, Lilly, Coronado, Levia, Merck, XenoPort, Dermira, and Baxalta. JF Merola has been a consultant, investigator, advisory board member, and has received grants, and/or honoraria from AbbVie, Amgen, Biogen Idec, Celgene Corporation, Centocor/Janssen, Eli Lilly, Janssen, Momenta, Novartis, and Pfizer. E Levi and R Chen are employees of Celgene Corporation. K Duffin has been a consultant, steering committee member, and received grants, and/or honoraria from AbbVie, Amgen, Boehringer Ingelheim, Bristol-Myers Squibb, Celgene Corporation, Centocor/Janssen, Eli Lilly, Novartis, Pfizer, Regeneron, Stiefel, and XenoPort.

PA-05: Comparative efficacy of two dosages of brodalumab in psoriasis patients in different weight subgroups

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BACKGROUND: The efficacy and safety of brodalumab, an interleukin-17 receptor A (IL-17RA) antagonist, were studied in patients with moderate to severe plaque psoriasis (AMAGINE-1/-2/-3).

OBJECTIVE: To examine the efficacy and safety of brodalumab 140 and 210 mg Q2W in psoriasis patients corresponding to different weight subgroups.

METHODS: The integrated analysis included patients randomized to brodalumab 140 mg (n = 1458) or 210 mg (n = 1458) Q2W. Efficacy endpoints by baseline weight class and treatment group were summarized with descriptive statistics. Patients were grouped by baseline weight class in 10-kg increments, with patients ≤60 and >130 kg assigned to the lowest and highest weight classes, respectively. Safety was examined using a weight cutoff of 70 kg.

RESULTS: The percentages of patients with PASI 75, PASI 90, and sPGA scores of 0 or 1 at week 12, and the mean percent PASI improvement from baseline to week 12, were higher in the 210-mg group than in the 140-mg group for all weight classes except >60 to 70 kg. Differences between the brodalumab dose groups for these endpoints were significant for all weight classes >70 kg ($P < .05$). The percentages of patients achieving PASI 75 with brodalumab 140 vs 210 mg, respectively, were as follows: ≤60 kg: 92.2% vs 94.7%; >60 to 70 kg: 89.3% vs 86.8%; >70 to 80 kg: 77.6% vs 91.4%; >80 to 90 kg: 72.0% vs 88.9%; >90 to 100 kg: 65.9% vs 87.1%; >100 to 110 kg: 50.0% vs 80.3%; >110 to 120 kg: 46.9% vs 85.7%; >120 to 130 kg: 34.4% vs 74.5%; >130 kg: 26.2% vs 57.7%. A decline in response was observed in patients in higher weight classes with the 140-mg dose; however, patients in the brodalumab 210-mg group showed a consistently higher response rate up to 120 kg, ranging from 80.3% to 94.7%. The percentages of subjects with PASI 100 and sPGA score 0 at week 12 were significantly higher in the 210-mg group than in the 140-mg group for all weight classes >70 kg ($P < .05$). The percentages of patients achieving PASI 100 in the brodalumab 140- vs 210-mg groups, respectively, were as follows: ≤60 kg: 54.4% vs 67.0%; >60 to 70 kg: 44.7% vs 48.5%; >70 to 80 kg: 38.2% vs 52.5%; >80 to 90 kg: 27.6% vs 42.9%; >90 to 100 kg: 18.3% vs 33.2%; >100 to 110 kg: 14.5% vs 39.3%; >110 to 120 kg: 8.8% vs 25.3%; >120 to 130 kg: 1.6% vs 21.8%; >130 kg: 0.0% vs 12.4%. The percentages of patients ≤70 kg with treatment-emergent adverse events through week 12 (54.6% vs 53.3%) and >70 kg (56.8% vs 58.5%) were generally similar between the 140- and 210-mg groups.

LIMITATIONS: These results were based on a clinical study population and may not be generalizable to the broader population of patients with psoriasis.

CONCLUSION: An effect of weight was observed, evidenced by a decline in response in the higher weight groups. However, the brodalumab 210-mg dose demonstrated an acceptable risk-benefit profile and had greater efficacy than the 140-mg dose across all endpoints for patients >70 kg.

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DISCLOSURES: KA Papp has served as a consultant; scientific officer; member of a speaker's bureau, advisory board or steering committee; or received research grants or honoraria from AbbVie, Inc; Akesis Pharmaceuticals, Inc; Akros, Inc; Allergan, Plc; Alza Corporation; Amgen Inc; Anacor Pharmaceuticals; Ar-

tax Biopharma, Inc; Astellas Pharma, Inc; AstraZeneca; Baxter; Baxalta; Boehringer Ingelheim; Bristol-Myers Squibb; Can-Fite BioPharma; Celgene Corporation; Celtic Pharma; Cipher Pharmaceuticals, Inc; Dermira, Inc; Dow Pharma; Eli Lilly & Co; Ferring Pharmaceuticals, Inc; Formycon AG; Forward Pharma A/S; Fujisawa Pharmaceuticals Co, Inc; Funxional Therapeutics, Ltd; Galderma SA; Genentech, Inc; Genexion SA; Genzyme Corporation; Gilead Sciences; GlaxoSmithKline, Plc; Janssen Pharmaceuticals; Kyowa Hakko Kirin Co, Ltd; LEO Pharma, Inc; MedImmune, Inc; Meiji Seika Pharma Co; Merck & Co, Inc (MSD); Merck Serono; Mitsubishi Tanabe Pharma; Mylan; Novartis Pharmaceuticals Corporation; NovImmune SA; Pan-Genetics Pharmaceutical Corporation; Pfizer, Inc; Regeneron Pharmaceuticals, Inc; Roche; Sanofi-Aventis US LLC; Stiefel Laboratories; Takeda Pharmaceuticals, Inc; UCB, Inc; Valeant Pharmaceuticals North America LLC; and Vertex Pharmaceuticals, Inc. A Blauvelt has served as a scientific adviser and clinical study investigator for AbbVie, Inc; Amgen Inc; Boehringer Ingelheim; Celgene Corporation; Dermira, Inc; Genentech, Inc; GlaxoSmithKline; Janssen Pharmaceuticals; Eli Lilly & Co; Merck & Co, Inc; Novartis Pharmaceuticals Corporation; Pfizer, Inc; Regeneron Pharmaceuticals, Inc; Sandoz; Sanofi Genzyme; Sun Pharmaceutical Industries, Ltd; UCB, Inc; and Valeant Pharmaceuticals North America LLC; and as a paid speaker for Eli Lilly & Co. A Gottlieb currently serves as a consultant or as an advisory board member for Amgen Inc; Astellas Pharma, Inc; Akros, Inc; Centocor Biotech (Janssen); Inc, Celgene Corporation; Bristol-Myers Squibb Co; Beiersdorf, Inc; Abbott Laboratories (AbbVie); TEVA Pharmaceutical Industries, Ltd; Actelion Pharmaceuticals US, Inc; UCB, Inc; Novo Nordisk A/S; Novartis Pharmaceuticals Corporation; DermiPsor, Ltd; Incyte Corp; Pfizer, Inc; Can-Fite BioPharma, Ltd; Eli Lilly & Co; Coronado; Vertex Pharmaceuticals, Inc; Karyopharm Therapeutics; CSL Behring; GlaxoSmithKline; XenoPort, Inc; Catabasis Pharmaceuticals; Meiji Seika Pharma Co, Ltd; Takeda Pharmaceuticals, Inc; Mitsubishi Tanabe Pharma America, Inc; Genentech, Inc; Baxalta; Kineta One, LLC; KPI Therapeutics; Crescendo Biosciences; Aclaris; Amicus; and Reddy Labs, Ltd. A Gottlieb has previously received research or educational grants (paid to Tufts Medical Center) from Centocor Biotech (Janssen), Inc; Amgen Inc; Abbott Laboratories (AbbVie); Novartis Pharmaceuticals Corporation; Celgene Corporation; Pfizer, Inc; Eli Lilly & Co; Levia; Merck & Co, Inc; XenoPort, Inc; Dermira, Inc; and Baxalta. S Hsu has served as an investigator, consultant, or as an advisory board member for Centocor Biotech, Inc; Abbott Laboratories; Eli Lilly & Co; Genentech; Janssen Biotech, Inc; AbbVie, Inc; Sun Pharmaceutical Industries, Ltd/Ranbaxy; Medicis Pharmaceutical; Galderma; Promius Pharma; Dermik; Biogen; Amgen Inc; Novartis Pharmaceuticals Corporation; and Valeant Pharmaceuticals North America LLC. S Rastogi, T Lin, and R Israel are employees of Valeant Pharmaceuticals North America LLC and may hold stock and/or stock options in the company. R Pillai is an employee of Dow Pharmaceutical Sciences (a division of Valeant Pharmaceuticals North America LLC) and may hold stock and/or stock options in the company.

FUNDING/SUPPORT: This study was sponsored by Amgen Inc Medical writing support was provided by MedThink SciCom and funded by Valeant Pharmaceuticals North America LLC.

PA-06: Concomitant antibiotic use in patients with moderate to severe hidradenitis suppurativa who were treated with adalimumab or placebo in a phase 3 study (PIONEER II)

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BACKGROUND: Hidradenitis suppurativa (HS) is a chronic, inflammatory skin disease characterized by nodules, abscesses, and fistulas; the pathogenesis is not well understood. Despite limited efficacy and high recurrence rates, antibiotics are recommended as first-line treatment. Originator adalimumab (ADA) is a fully human anti-TNF-α L monoclonal antibody that targets noninfectious, inflammatory causes of HS.
OBJECTIVE: This subgroup analysis evaluated the effect of concomitant antibiotic use on the proportion of patients who achieved HS clinical response (HiSCR) while being treated with ADA or placebo in a phase 3, double-blind study (PIONEER II).
METHODS: The study enrolled adults with at least a 1-year history of moderate to severe HS who had an inadequate response to a 90-day trial of oral antibiotics. Patients were randomized 1:1 to receive ADA (160 mg at week 0, 80 mg at week 2, and 40 mg weekly starting at week 4) or placebo for 12 weeks, with randomization stratified by baseline Hurley stage and antibiotic use. Concomitant use of a stable dose of oral doxycycline or minocycline was permitted. The primary outcome was the proportion of patients who achieved HiSCR, defined as ≥ 50% reduction in total abscess and inflammatory nodule count with no increase in abscess or draining fistula counts relative to baseline. The *P* values for treatment effect were calculated using the Cochran-Mantel-Haenszel test and stratified patients by baseline Hurley stage and antibiotic use.
RESULTS: Of the 326 patients who were randomized, 63 (19%) were taking concomitant antibiotics, 172 (53%) had Hurley stage II HS, and 154 (47%) had Hurley stage III HS at baseline. Overall, 306 (94%) of patients completed 12 weeks of the study. Among patients who were taking concomitant antibiotics at baseline, the proportion who achieved HiSCR was 65% (20/31) for those who received ADA and 22% (7/32) for those who received placebo ($P < .001$). Among patients who were not taking antibiotics, HiSCR was achieved by 58% (76/132) and 29% (38/131) of patients who received ADA and placebo, respectively ($P < .001$). After 12 weeks of treatment with concomitant antibiotics and ADA or placebo, HiSCR was achieved by 64% (7/11) and 25% (3/12; $P = .100$) of patients with Hurley stage II and 65% (13/20) and 20% (4/20; $P = .004$) of patients with Hurley stage III disease, respectively. Similarly, among those who were not on antibiotics, a greater proportion of pa-

tients with Hurley stage II (62% vs 39%; $P = .004$) and Hurley stage III (52% vs 16%; $P < .001$) HS achieved HiSCR with ADA therapy compared with placebo.
CONCLUSION: Irrespective of concomitant, stable antibiotic use, more patients who received ADA achieved HiSCR at week 12 than did those who received placebo.
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DISCLOSURES: WP Gulliver has received honoraria from AbbVie, Inc, Actelion, Amgen, Celegene, Cipher, Janssen, Lilly, Leo, Novartis, Pfizer, Roche, and Valeant for participating on advisory boards and serving as a consultant and speaker. He has received research grants from AbbVie, Inc, Amgen, Janssen, and Novartis. H Bachelez has acted as consultant, speaker, advisor, and investigator for AbbVie, Inc. SY Paek has been a consultant and investigator for trials funded by AbbVie, Inc. AA Qureshi has acted as consultant to AbbVie, Inc, Amgen, Centers for Disease Control and Prevention, Janssen, Merck, Novartis, and Pfizer, and investigator for Amgen, Regeneron, and Sanofi. All honoraria were donated to charity. Z Geng and GD Mulder are full-time employees of AbbVie Inc, and may own stock and/or stock options.
FUNDING/SUPPORT: AbbVie, Inc, funded this study and participated in the study design, study research, data collection, analysis and interpretation of data, and writing, reviewing, and approving this abstract for presentation. All authors had access to the data, and participated in the development, review, and approval of the abstract, and ultimately in the decision to submit this abstract to HD for consideration. Editorial assistance provided by Shelly Asiala-Heckner, PharmD, of The JB Ashtin Group, Inc.

PA-07: Defining field cancerization of the skin using noninvasive optical coherence tomography imaging to detect and monitor actinic keratosis in ingenol mebutate 0.015%-treated patients – The Extension Study

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BACKGROUND: Field cancerization refers to DNA damage in the keratinocytes due to chronic ultraviolet radiation. This damage can be detected by Optical Coherence Tomography (OCT) imaging, and an original study completed in 2015 showed significant correlation between biopsied actinic keratosis as well as high clearance rate of actinic keratosis (AK) and subclinical actinic damage in patients treated with ingenol mebutate 0.015%. Given the high overall clearance rate in the original study (79.35%) and the overall patient benefit, the investigators conducted an extension study to treat the three clinical and subclinical lesions that had previously been untreated.
OBJECTIVE: The primary objectives of the extension study was to determine whether the actinic keratoses successfully treated during the original study remained clear one year later, and to treat the previously untreated lesions.
METHODS: 15 patients from the original 30 patient pilot study returned one year after treatment. All lesions treated and untreated were evaluated clinically, dermoscopically and with OCT at baseline and at day 60 following treatment of their previously untreated areas.
RESULTS: The majority of the lesions that were successfully treated by the completion of the original study remained clear with a $P < .0001$ at the start of, and throughout the extension study. Similar to the original study there was a statistically significant reduction of lesions in the now treated actinic keratoses.
LIMITATIONS: One limitation of this data is the fact that a large number of patients in the Original Study were unable to enroll in the Extension Study. Barriers to their enrollment included the fact that they had used another form of treatment on their AKs over the course of the year, some were traveling at the time, and others had relocated, and were unable to participate.
CONCLUSION: Our results suggest that AKs and actinic damage that are monitored adequately and respond well to treatment are likely to stay clear for at least one year following initial treatment. This is a promising finding given the fact that AKs can often be refractory and require multiple treatments with cryosurgery. Lesions in the Original Study that were refractory to treatment and were also present during the Extension Study showed features of seborrheic keratoses on non-invasive imaging, which could indicate a barrier to treatment response.
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DISCLOSURES: O Markowitz is an investigator for Michelson Diagnostics. She has also received honoraria from 3-gen. D Siegel is an advisory board member for Michelson Diagnostics. K Wang, A Levine, S Minhas, M Schwartz, and E Feldman have no conflicts of interest to declare.
FUNDING/SUPPORT: This study was funded by LEO Pharma.

PA-08: Development and validation of the satisfaction assessment for rosacea facial redness (SAT-RFR)

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BACKGROUND: The Satisfaction Assessment for Rosacea Facial Redness (SAT-RFR), a patient-reported outcomes measure, was developed to assess treatment satisfaction for rosacea-associated erythema.
METHODS: We interviewed 31 adults with moderate to severe erythema of rosacea (Clinician Erythema Assessment [CEA] score ≥3), then generated and modified items based on additional patient (n = 20) and expert clinician feedback. Reliability and validity were assessed at baseline in a randomized, vehicle-controlled study of oxymetazoline cream 0.5%, 1.0%, and 1.5% for moderate to severe rosacea-associated facial erythema.
RESULTS: The SAT-RFR consists of 10 items in 5 domains: Appearance, Sensations, Treatment Effectiveness, Treatment Application, and Treatment Overall. Three items (satisfaction

with appearance; symptom sensations) constitute the baseline version; all items constitute the follow-up version. The analysis population (n = 356) was mostly female (80.1%) with moderate to severe erythema. Inter-item correlation ($r < 0.80$), internal consistency (Cronbach $\alpha = 0.874$), and test-retest reliability (intraclass correlation coefficients of 0.75 and 0.77 in 2 analysis populations) were acceptable. Construct, item convergent, and divergent validity were good; most items correlated most strongly with their own domain ($r > 0.50$). SAT-RFR overall score and most domains' item scores were significantly different ($P < .05$) across CEA severity.

CONCLUSION: The SAT-RFR is an acceptable measure of treatment satisfaction in adults with rosacea-associated erythema.

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DISCLOSURES: IL Ferrusi, G Ahluwalia, and DA Andrae are employees of Allergan plc.

PA-09: Development and validation of the symptom assessment for rosacea facial redness (SA-RFR)

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BACKGROUND: The Symptom Assessment for Rosacea Facial Redness (SA-RFR), a new patient-reported outcome measure, was developed to assess severity of rosacea-associated erythema.

METHODS: We generated the SA-RFR through literature review, interviewing 31 adults with moderate to severe rosacea-associated erythema (Clinician Erythema Assessment [CEA] score ≥3), and experts. Patient interviews (n = 20) and expert clinical feedback guided revision of the questionnaire. Reliability and validity were examined at baseline in a randomized, vehicle-controlled study of oxymetazoline cream 0.5%, 1.0%, and 1.5% for moderate to severe rosacea-associated erythema.

RESULTS: The SA-RFR consists of 2 domains with 2 items each: Skin Appearance (facial redness; redness area) and Skin Sensations (warmth; burning). The analysis population (n = 356) was mostly female (80.1%) with moderate to severe erythema. Internal consistency reliability (Cronbach $\alpha \geq 0.71$) and test-retest reliability (intraclass correlation coefficients of 0.59 and 0.68 in 2 analysis populations) were acceptable. Items within respective domains exhibited reasonable convergent validity (item correlations ≥0.40) and good discriminant validity (items had higher correlation with their domains vs others). All SA-RFR items and domains significantly differentiated ($P < .05$) based on CEA severity.

CONCLUSION: The SA-RFR is an acceptable measure of the severity of erythema signs and symptoms in adults with rosacea.

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DISCLOSURES: IL Ferrusi, G Ahluwalia, and DA Andrae are employees of Allergan plc.

PA-10: Doxycycline 40 mg modified release capsules reduced inflammatory biomarker expression and improved clinical outcomes in papulopustular rosacea

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BACKGROUND: Pro-inflammatory molecules are thought to play a role in papulopustular rosacea (PPR). PPR associated biomarkers include cathelicidins, their proinflammatory peptide byproducts, serine proteases (eg, kallikrein [KLK]-5), and matrix metalloproteinases (MMPs). Doxycycline has been reported to inhibit MMP activity by directly binding the molecule, and by suppressing MMP genes.

METHODS: This 12 week study assessed treatment efficacy and the effect of doxycycline 40 mg modified release capsules (doxycycline MR) on skin cathelicidin and related biomarker activity in 170 subjects aged 18 to 70 with clinically diagnosed PPR (5 to 40 papules or pustules). Investigators assessed inflammatory lesions, IGA, and CEA at baseline, and at weeks 2, 4, 8, and 12. Tape stripping and skin biopsies (2 mm or 3 mm, baseline and week 12) were performed to assess rosacea biomarkers.

RESULTS: Doxycycline MR significantly reduced the inflammatory lesions and was significantly associated with treatment success (IGA of clear or near clear) at weeks 4, 8, and 12 ($P < .05$). Doxycycline MR treatment, success, and lower clinical severity were associated with significantly lower biomarker levels at week 12 compared to baseline ($P < .05$). Total protease activity was statistically lower at week 4 compared to baseline in the doxycycline MR treatment group ($P = .026$). In both the doxycycline MR and placebo treatment groups, clinical success was associated with statistically lower cathelicidin levels at weeks 8 and 12 compared to baseline ($P = .004$ and .041, respectively).

CONCLUSION: Doxycycline MR is efficacious in subjects with PPR, and the results of the current study are similar to those observed in previous studies. Furthermore, doxycycline MR therapy reduced cathelicidin and related biomarkers, indicating that these biomarkers may be a useful diagnostic tool, and supporting an anti-inflammatory mechanism for doxycycline in rosacea therapy.

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DISCLOSURES: A Di Nardo has served as an investigator and has received grants from Galderma Laboratories, LP. A Holmes is a salaried employee of Galderma Laboratories, LP. Y Muto has no disclosures. EY Huang has served as an investigator for Galderma Laboratories, LP. WJ Winkelman is a salaried employee of Nestlé Skin Health-SHIELD Center. RL Gallo has

served as an investigator for Galderma Laboratories, LP. MJ Rueda is a salaried employee of Galderma Laboratories, LP.

PA-11: Dupilumab in moderate to severe atopic dermatitis: results from two randomized phase 3 trials (SOLO 1 & 2)

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BACKGROUND: Dupilumab, a fully human monoclonal antibody against interleukin (IL)-4 receptor-α, inhibits signaling of IL-4 and IL-13, type 2 cytokines which may be key drivers of atopic/allergic diseases such as atopic dermatitis (AD).
OBJECTIVE: To report efficacy and safety of dupilumab in adults with moderate to severe AD in two phase 3 trials (SOLO 1: NCT02277743; SOLO 2: NCT02277769).
METHODS: Two identical, multinational, randomized, double-blind, placebo (PBO)-controlled trials enrolled patients (pts) aged ≥18 years with moderate to severe AD inadequately controlled with or inadvisable for topical medications. Pts were randomized (1:1:1) to subcutaneous PBO weekly (wkly [qw]), dupilumab 300mg every 2 wks (q2w) or dupilumab 300mg qw for 16 wks. Primary endpoint was proportion of pts with Investigator's Global Assessment (IGA) 0/1 and ≥2-point improvement from baseline (Wk0) at Wk16. Secondary endpoints included proportion of pts with ≥75% improvement in Eczema Area Severity Index (EASI-75), and peak pruritus numerical rating scale (NRS) score improvement ≥4 (key secondaries); % change in EASI and SCORing AD (SCORAD); and change in Patient Oriented Eczema Measure (POEM), Hospital Anxiety and Depression Scale (HADS) and Dermatology Life Quality Index (DLQI) (Wk0-Wk16). Safety was assessed.
RESULTS: 671 (SOLO 1) and 708 (SOLO 2) pts were enrolled. Compared with PBO, more dupilumab-treated pts achieved IGA 0/1 and ≥2-point improvement (SOLO 1: 10% vs 38%/37%; SOLO 2: 9% vs 36%/36%) at Wk16 (PBO vs q2w/qw; $P < .0001$, both regimens/trials). At Wk16, dupilumab increased proportions of pts achieving EASI-75 (SOLO 1: 15% vs 51%/53%; SOLO 2: 12% vs 44%/48%), and pruritus NRS improvement ≥4 (SOLO 1: 12% vs 41%/40%; SOLO 2: 10% vs 36%/39%); and improved (Wk0-Wk16) % change in EASI (SOLO 1: –37.6% vs –72.3%/–72.0%; SOLO 2: –30.9% vs –67.1%/–69.1%) and SCORAD (SOLO 1: –29.0% vs –57.7%/–57.0%; SOLO 2: –19.7% vs –51.1%/–53.5%), and change in POEM (SOLO 1: –5.1 vs –11.6/–11.0; SOLO 2: –3.3 vs –10.2/–11.3), HADS total (SOLO 1: –3.0, –5.2/–5.2; SOLO 2: –0.8, –5.1/ –5.8) and DLQI (SOLO 1: –5.3 vs –9.3/–9.0; SOLO 2: –3.6 vs –9.3/–9.5); PBO vs q2w/qw ($P < .0001$, each endpoint/regimen/trial except HADS in SOLO 1 [PBO vs q2w, $P = .0006$; qw, $P = .0003$]). Significant changes vs PBO ($P < .0001$) were seen by Wk2 in some secondary endpoints. Treatment groups had similar rates of treatment-emergent adverse events (TEAEs) (SOLO 1: 65%, 73%/69%; SOLO 2: 72%, 65%/66%; PBO, q2w/qw, respectively). Commonly-occurring TEAEs were AD exacerbations, injection-site reactions and nasopharyngitis. Dupilumab did not increase overall rate of infections.
CONCLUSION: In pts with moderate to severe AD, dupilumab significantly improved AD signs and symptoms, including patient-reported pruritus, anxiety/depression symptoms, and quality of life, and was generally well tolerated.
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DISCLOSURES: EL Simpson: Grants: Amgen, Anacor, Celgene, Chugai, Eli Lilly, Galderma, Genentech, MedImmune, Novartis, Pfizer, Tioga, Regeneron Pharmaceuticals, Inc. Consultancy: AbbVie, Anacor, Celgene, Dermira, Galderma, Genentech, GSK, MedImmune, Pfizer, Valeant, Sanofi and Regeneron Pharmaceuticals, Inc. T Bieber: Consultancy: Anacor, Astellas, Galderma, Novartis, Pfizer, Regeneron Pharmaceuticals, Inc, Roche, Sanofi. Honoraria: Anacor, Astellas, Galderma, Novartis, Pfizer, Roche. Investigator: Regeneron Pharmaceuticals, Inc. Board membership: Anacor, Astellas, Galderma, Novartis, Pfizer, Roche. E Guttman-Yassky: Board membership: Anacor, AnaptysBio, Celgene, Celsus, Dermira, Galderma, Leo Pharma, MedImmune, Novartis, Pfizer, Regeneron Pharmaceuticals, Inc, Sanofi Aventis, Stiefel/GSK, Vitae. Consultancy: AbbVie, Amgen, Anacor, AnaptysBio, BMS, Celgene, Celsus, Dermira, Drais, Eli Lilly, Galderma, Leo Pharma, MedImmune, Mitsubishi Tanabe, Novartis, Pfizer, Regeneron Pharmaceuticals, Inc, Sanofi Aventis, Stiefel/GSK, Vitae.

Grants: BMS, Celgene, Dermira, Janssen, Leo Pharma, Merck, Novartis, Regeneron Pharmaceuticals, Inc – grants/grants pending. LA Beck: Consultancy: AbbVie, Array Biopharma, Celgene, Genentech, Ironwood, Janssen, Leo Pharma, MedImmune, Novartis, Regeneron Pharmaceuticals, Inc, Unilever. Honoraria: AbbVie, Array Biopharma, Celgene, Genentech, Ironwood, Janssen, Leo Pharma, MedImmune, Novartis, Regeneron Pharmaceuticals, Inc, Unilever. Board membership: AbbVie, Array Biopharma, Celgene, Genentech, Ironwood, Janssen, Leo Pharma, MedImmune, Novartis, Regeneron Pharmaceuticals, Inc, Unilever. Other (investigator): Regeneron Pharmaceuticals, Inc. A Blauvelt: Consultancy: AbbVie, Amgen, Boehringer Ingelheim, Celgene, Dermira, Eli Lilly, Genentech, GSK, Janssen, Merck, Novartis, Pfizer, Regeneron Pharmaceuticals, Inc, Sandoz, Sanofi Genzyme, Sun, UCB, Valeant. Other (investigator): AbbVie, Amgen, Boehringer Ingelheim, Celgene, Dermira, Eli Lilly, Genentech, GSK, Janssen, Merck, Novartis, Pfizer, Regeneron Pharmaceuticals, Inc, Sandoz, Sanofi Genzyme, Sun, UCB, Valeant. Other (paid speaker): Eli Lilly. MJ Cork: Consultancy: Almirall, Amgen, Astellas, Bayer, Chugui, Galderma, Johnson and Johnson, Leo Pharma, Meda, Novartis, Pfizer, Regeneron Pharmaceuticals, Inc, Sanofi, Stiefel-GSK, Unilever. Other (investigator): Almirall, Astellas, Bayer, Johnson and Johnson, Leo Pharma, Novartis, Regeneron Pharmaceuticals, Inc, Sanofi, Stiefel-GSK. Board membership: Anacor, Amgen, Chugai, Galderma, Meda, Pfizer, Unilever. JI Silverberg: Investigator: Celgene, Eli Lilly, GSK, Regeneron Pharmaceuticals, Inc, Roche. Consultancy: AbbVie, Anacor, Eli Lilly, GSK, Pfizer, Proctor & Gamble, Medimmune, Regeneron Pharmaceuticals, Inc. Other (speaker): Regeneron Pharmaceuticals, Inc. M Deleuran: Other (investigator): AbbVie, Merck, Pierre Fabre, Regeneron Pharmaceuticals, Inc, Sanofi. Consultancy: Meda, Merck, Pfizer, Pierre Fabre, Regeneron Pharmaceuticals, Inc, Sanofi. Speaker: Leo Pharma, Meda, Pierre Fabre, Regeneron Pharmaceuticals, Inc, Sanofi. Y Kataoka: Honoraria: Sysmex. JP Lacour: Grants: AbbVie, Boehringer, Celgene, Eli Lilly, Galderma, Janssen, Merck, Novartis, Regeneron Pharmaceuticals, Inc, Roche. Honoraria: AbbVie, Celgene, Eli Lilly, Galderma, Novartis, Sanofi. Consultancy: AbbVie, Celgene, Eli Lilly, Galderma, Novartis, Sanofi. Board membership: AbbVie, Celgene, Eli Lilly, Galderma, Novartis, Sanofi. K Kingo: Other (investigator): Celgene, Merck, Mitsubishi Pharma, Novartis, Regeneron Pharmaceuticals, Inc, Sandoz. M Worm: Other (investigator): Regeneron Pharmaceuticals, Inc. Honoraria: Astellas, Biogen Idec, Leo Pharma, MSD, Novartis, Pfizer. Consultancy: Astellas, Biogen Idec, Leo Pharma, MSD, Novartis, Pfizer. Board membership: Astellas, Biogen Idec, Leo Pharma, MSD, Novartis, Pfizer. Y Poulin: Other (investigator): AbbVie, Amgen, Baxter, Boehringer Ingelheim, Bristol-Myers Squibb, Celgene, Centocor/Janssen, Eli Lilly, EMD Serono, Galderma, GSK, Leo Pharma, Merck, MedImmune, Novartis, Pfizer, Regeneron Pharmaceuticals, Inc, Takeda, UCB Pharma. A Wollenberg: Honoraria or Board Membership: Almirall, ALK Scherax, AMGEN, Anacor, Astellas, Bioderma, Celgene, Chugai, Galderma, GSK, Hans Karrer, LEO Pharma, L'Oreal, MEDA, MedImmune, MerckSharpDohme, Novartis, Pierre Fabre, Pfizer, Regeneron, Sanofi. Y Soo: Stock/stock options: Regeneron Pharmaceuticals, Inc. Employee: Regeneron Pharmaceuticals, Inc. NMH Graham: Stock/stock options: Regeneron Pharmaceuticals, Inc. Employee: Regeneron Pharmaceuticals, Inc. G Pirozzi: May hold stock/stock options: Sanofi. Employee: Sanofi. B Akinlade: Stock/stock options: Regeneron Pharmaceuticals, Inc. Employee: Regeneron Pharmaceuticals, Inc. H Staudinger: May hold stock/stock options: Sanofi. Employee: Sanofi. L Eckert: May hold stock/stock options: Sanofi. Employee: Sanofi. A Gadkari: Stock/stock options: Regeneron Pharmaceuticals, Inc. Employee: Regeneron Pharmaceuticals, Inc. M Ardeleanu: Stock/stock options: Regeneron Pharmaceuticals, Inc. Employee: Regeneron Pharmaceuticals, Inc.

FUNDING/SUPPORT: Research sponsored by Sanofi and Regeneron Pharmaceuticals, Inc. ClinicalTrials.gov Identifiers: NCT02277743; NCT02277769. Editorial assistance was provided by Carla Costa, PhD, of Excerpta Medica, funded by Sanofi and Regeneron Pharmaceuticals, Inc.

ACKNOWLEDGEMENTS: The authors would like to acknowledge the patients who participated in this study, the study investigators (see Supplementary Appendix), and the following for their contributions: Michael Andria, Anit Bajwa, Judith Cusick, Miriam Kore, Jacqueline Kuritzky, Linda Williams, Jeannie Yo, and Xiaoping Zhu (Regeneron Pharmaceuticals, Inc); and Dianne Barry and Elena Rizova (Sanofi).

PA-12: Ease of use and confidence with auto-injector to administer ixekizumab in a phase 3 trial evaluated with subcutaneous administration assessment questionnaire (SQAAQ)

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BACKGROUND: Many biologic agents are available as self-administered subcutaneous injections. In order for patients/caregivers to feel confident in their ability to administer therapy, an injection device should be easy to use. Ixekizumab (IXE) is a high-affinity monoclonal antibody that selectively targets interleukin (IL)-17A and is approved for the treatment of psoriasis.
OBJECTIVE: The objective of this study was to report the usability and patient-reported experience of IXE delivered via auto-injector.
METHODS: This was an analysis of the 12-week, open-label period of a Phase 3 trial in patients with moderate to severe psoriasis who were randomly assigned to an injection device (auto-injector or prefilled syringe). Presented here are analyses of the patients in the auto-injector group. The starting dose of

IXE was 160 mg at Week 0, followed by 80 mg every 2 weeks. Patients or caregivers reported their experiences injecting with the auto-injector at Weeks 0, 4, and 8 using the Subcutaneous Administration Assessment Questionnaire (SQAAQ), a 12-item questionnaire that provides an assessment of ease of use and confidence using a device to administer a subcutaneous injection of drug using a 7-point Likert scale ranging from "strongly disagree" to "strongly agree." Observed data are reported.

RESULTS: Of the 102 patients in the auto-injector group, 94 completed the 12-week period. At Week 0 over 90% of patients/caregivers agreed/strongly agreed with each of the items on the SQAAQ and at Week 8 over 95% agreed or strongly agreed with each item. Among the items, over 90% of patients/caregivers reported that they agreed/strongly agreed that the auto-injector was "overall, easy to use," "easy to learn how to use," and that they were "confident my dose is complete" based on SQAAQ responses at Weeks 0, 4, and 8. Overall the safety and efficacy profile was consistent with what has previously been reported. There were no serious adverse events or discontinuations associated with using the device. Mean percent improvement in PASI at Week 12 was 88% (LOCF).

LIMITATIONS: This was a small study.

CONCLUSION: The vast majority of patients and caregivers who used the auto-injector reported on the SQAAQ questionnaire that the device was overall easy to use and that they were confident in using the device when using it for the first time at Week 0. IXE delivered via an auto-injector had similar efficacy and safety findings as observed in the clinical trials for ixekizumab.

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DISCLOSURES: J Bagel is a speaker and/or conducts research and receives honoraria from Janssen, AbbVie, Novartis, Celgene, Leo Pharma, and Boehringer Ingelheim. KC Duffin receives grant/research support from Amgen, Eli Lilly and Company, Janssen, Stiefel, AbbVie, Bristol-Myers Squibb, Celgene, Novartis, and Xenopart; is a consultant and receives honoraria from Amgen, Eli Lilly and Company, Janssen, Stiefel, AbbVie, Bristol-Myers Squibb, Celgene, Pfizer, Novartis, and Xenoport; and is a member of Scientific Advisory Board and receives honoraria from Novartis, Eli Lilly and Company, Janssen, Celgene, Pfizer, and Xenoport. M Bukhalo and M Bobonich are consultants for Eli Lilly and Company and miscellaneous pharma. A Gill, F Zhao, B Pangallo, C Shuler, D Shrom, C Ojeh, and M Vincent are employees and minor stockholders of Eli Lilly and Company.

FUNDING/SUPPORT: The study was supported by Eli Lilly and Company.

PA-13: Efficacy and safety of adalimumab in nail-psoriasis patients with and without psoriatic arthritis from the first 26 weeks of a phase-3, randomized, placebo-controlled trial

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BACKGROUND: Concomitant nail disease is common in patients (pts) with plaque psoriasis (Ps) and even more in pts with coexisting psoriatic arthritis (PsA), which adds disease burden with higher negative impact on pt quality of life. We examined baseline characteristics and originator-adalimumab (ADA) treatment effect for pts with nail Ps, with or without PsA, from a phase 3, placebo (PBO)-controlled, clinial trial (clinicaltrials.gov NCT02016482).

METHODS: Results are reported from the double-blind PBO-controlled, Period A in which 217 pts with moderate to severe plaque Ps and fingernail Ps were included and randomized 1:1 to receive 40 mg ADA every other week (eow) from wk 1 (initial 80 mg dose at wk 0), or matching PBO for 26 wks. At wk 26, the primary endpoints -- the proportion of pts with ≥75% improvement in modified Nail Ps Severity Index (mNAPSI 75) and the proportion of pts with Physician's Global Assessment of Fingernail Psoriasis (PGA-F) of clear (0) or minimal (1) with ≥2-grade reduction from baseline -- were assessed in the presence or absence of PsA. Missing data were handled by Multiple Imputation. Safety was assessed using treatment-emergent adverse events (AEs).

RESULTS: Of the 217 randomized pts (108 PBO, 109 ADA), 188 (86.6%) completed 26 wks of treatment or early escaped to open label Period B per protocol. Both primary endpoints were achieved: mNAPSI 75 (3.4% PBO, 46.6% ADA; $P < .001$) and PGA-F 0 or 1 plus ≥2-point improvement from baseline (6.9% PBO, 48.9% ADA; $P < .001$). At baseline, 28.6% had PsA and mean duration was 7.91 years [SD 8.314]. AEs reported by history of PsA (yes vs no) were 56.3% PBO and 56.7% ADA vs 55.3% PBO and 57.0% ADA; serious AEs were 9.4% PBO and 10.0% ADA vs 2.6% PBO and 6.3% ADA; serious infections were 0 in both groups vs 2.6% PBO and 5.1% ADA. No malignancies, demyelinating disorder, tuberculosis or deaths were reported.

CONCLUSION: Pts who received ADA experienced significant improvements (mNAPSI and PGA-F 0 or 1 with grade >2 grade reduction) in nail Ps symptoms vs PBO, regardless of the involvement of PsA. Safety results were similar between treatment groups, regardless of the presence or absence of PsA.

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DISCLOSURES: B Elewski received grants for investigator services from AbbVie, Amgen, Janssen, Lilly, Merck, Novartis, Pfizer, Valeant, and Viament, and honoraria for consultant services from Pfizer, Lilly, Novartis, Valeant. P Rich received grants for investigator services from AbbVie, Allergan, Amgen, Anacor, Cassiopea, Dusa, Eli Lilly, Galderma, Janssen, Leo, Meiji, Merck, Neothetics, Novartis, Pfizer, Psolar, Ranbaxy,Sandoz, and Viamet, honoraria for advisory board participation from AbbVie, Eli Lilly, Novartis, Sandoz, and Valeant, and honoraria for consultant services from AbbVie, Novartis, and Polichem. F Behrens received grants for investigator services from Ab-

bVie, Amgen, Celgene, Janssen, Lilly, Novartis, Pfizer, Sandoz, and Sanofi, and honoraria for consultant services from Abbvie, Chugai, Celgene, Genzyme, Lilly, Novartis, Pfizer, Roche, and Sanofi. M Sundaram, Y Gu, D Williams, O Reyes receive a salary as AbbVie employees, and may also receive stocks and/or stock options.

FUNDING/SUPPORT: AbbVie Inc funded this study and participated in the study design; study research; collection, analysis and interpretation of data; and writing, reviewing and approving of this publication. All authors had access to the data, and participated in the development, review, and approval, and in the decision to submit this publication.

ACKNOWLEDGEMENT: The authors would like to acknowledge Jody Bennett, employed by AbbVie, for medical writing support in the production of this abstract.

PA-14: Efficacy and safety of apremilast with or without topical or phototherapy: subanalysis of the population with <PASI-75 in the ESTEEM 1 phase 3, randomized, controlled trial in patients with moderate to severe plaque psoriasis

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BACKGROUND: The phase 3 randomized ESTEEM 1 trial evaluated efficacy and safety of apremilast 30 mg BID (APR) vs placebo (PBO) in patients with moderate to severe plaque psoriasis.

OBJECTIVE: To assess the efficacy and safety of apremilast in patients with <75% reduction from baseline in Psoriasis Area and Severity Index (PASI) score (<PASI-75) treated with and without topical/phototherapy during Weeks 32 to 52 of the ESTEEM 1 trial.

METHODS: Patients were randomized (2:1) to APR or PBO. At Week 16, PBO patients switched to APR (PBO/APR). All patients were treated with APR through Week 32, followed by a randomized treatment withdrawal phase up to Week 52. The primary end point was PASI-75 at Week 16. At Week 32, in addition to APR, patients with <PASI-75 could receive topical therapies and/or ultraviolet B phototherapy (T/P) at the discretion of the investigator.

RESULTS: Of the 380 patients with <PASI-75 at Week 32, 210 received T/P (PBO/APR+T/P: n = 84; APR/APR+T/P: n = 126) and 170 did not receive T/P (PBO/APR without T/P: n = 51; APR/APR without T/P: n = 119). Topical agents used in patients with <PASI-75 in the PBO/APR and APR/APR groups, respectively, included corticosteroids (67.9%; 62.7%), vitamin D analogs (16.7%; 11.9%), corticosteroids + vitamin D analogs (38.1%; 46.0%), and a calcineurin inhibitor (1.2%; 0.8%); 11.9% (PBO/APR) and 8.7% (APR/APR) of patients received UVB phototherapy. At Week 52, PASI-75 was achieved by more patients receiving T/P vs without T/P (PBO/APR: 15.6% vs 4.4%, respectively; APR/APR: 12.2% vs 6.9%, respectively). At Week 52, mean percent decreases (ie, improvements) from baseline in PASI score were –61.3% (PBO/APR+T/P) vs –52.6% (PBO/APR without T/P) and –58.2% (APR/APR+T/P) vs –57.3% (APR/APR without T/P). During Weeks 32 to 52, the safety population included 378 patients: 210 patients received T/P (PBO/APR+T/P, n = 84, patient-years=28.0; APR/APR+T/P, n = 126, patient-years=44.3) and 168 patients did not receive T/P (PBO/APR without T/P, n = 51, patient-years=15.5; APR/APR without T/P, n = 117, patient-years=36.4). Adverse events (AEs) occurring in ≥5% of patients during Weeks 32 to 52 were upper respiratory tract infection, nasopharyngitis, and back pain. Diarrhea and nausea rates were low (<5%) and similar among the PBO/APR and APR/APR groups, regardless of T/P use. Based on exposure-adjusted incidence rates/100 patient-years, rates of AEs (including serious AEs) were similar in patients with vs without T/P use across both groups.

LIMITATIONS: Interpretation of these findings is limited by the exploratory nature of the analysis and the short-term, 16-week placebo-controlled treatment period.

CONCLUSION: In patients with <PASI-75 at Week 32, APR with or without T/P demonstrated an acceptable safety and tolerability profile. The trend toward higher PASI responses in patients receiving T/P with APR warrants further investigation.

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DISCLOSURES: K Reich has received honoraria as a consultant and/or advisory board member and/or acted as a paid speaker and/or participated in clinical trials sponsored by AbbVie, Amgen, Biogen, Boehringer Ingelheim, Celgene Corporation, Centocor, Covagen, Eli Lilly, Forward Pharma, GlaxoSmithKline, Janssen-Cilag, LEO Pharma, Medac, Merck Sharp & Dohme Corp, Novartis, Ocean Pharma, Pfizer (Wyeth), Regeneron, Takeda, UCB Pharma, and Xenoport. L Kircik has received honoraria and research grants as a consultant, investigator, speaker, and/or advisory board member for Abbott Laboratories, Acambis, Allergan, Amgen, Assos Pharma, Astellas Pharma US, Asubio, Berlex Laboratories (Bayer HealthCare Pharmaceuticals), Biogen Idec, Biolife, Biopelle, Breckinridge Pharma, Colbar, Celgene Corporation, Centocor, CollaGenex, Combinatrix, Connetics, Coria, Dermik Laboratories, Dow Pharmaceutical Sciences, Dusa, Embil Pharmaceuticals, EOS, Ferndale Laboratories, Galderma Laboratories, Genentech, GlaxoSmithKline, Health Point, Intendis, Innovail, Johnson & Johnson, Laboratory Skin Care, LEO Pharma, 3M, Medical International Technologies, Merck, Medicis Pharmaceutical, Merz, Nano Bio, Novartis AG, Nucryst Pharmaceuticals, Obagi, Onset, OrthoNeutrogena, Promius, QLT, PharmaDerm, Pfizer, Quatrix, Serono (Merck Serono International SA), SkinMedica, Stiefel Laboratories, TolerRx, Triax, Valeant Pharmaceuticals International, Warner-Chilcott, and ZAGE. M Paris is an employee of Celgene Corporation. J Bagel has no conflicts of interest to disclose.

PA-15: Efficacy and safety of continuous ixekizumab treatment for 60 weeks in moderate to severe plaque psoriasis: results from the UNCOVER-3 trial

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BACKGROUND: Ixekizumab is a high-affinity monoclonal antibody that selectively targets interleukin (IL)-17A.[1]
OBJECTIVE: The objective of this study was to describe the 60-week efficacy and safety of continuous ixekizumab treatment in patients with moderate to severe plaque psoriasis.
METHODS: UNCOVER-3 is a phase 3, placebo- and active-controlled trial in which patients were randomized in an induction period to placebo (N = 193), etanercept 50 mg twice weekly (N = 382), or 80 mg ixekizumab every 4 weeks (N = 386) or 2 weeks (N = 385) after an initial 160 mg starting dose. After 12 weeks, all patients entered into open-label treatment with ixekizumab Q4W. Disease severity was assessed using the static Physician Global Assessment (sPGA) and Psoriasis Area Severity Index (PASI). Data from patients continuously treated with ixekizumab from Week 0 to Week 60 were summarized using descriptive statistics with nonresponder imputation for missing data.
RESULTS: At Week 12, 722 ixekizumab-treated patients continued with open-label Q4W treatment. At Week 60, the PASI 75, 90, and 100 response rates were 87%, 78%, and 57%, respectively, and the sPGA 0,1 (complete clearance or minimal severity) response rate was 79%. The long-term safety and tolerability profile was similar to the induction period.[1]
LIMITATIONS: These data are from a single study relatively short in duration. Additional data are required to establish long-term efficacy and safety.
CONCLUSION: Continuous ixekizumab therapy over 60 weeks was highly efficacious and well tolerated in treating plaque psoriasis.

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DISCLOSURES: A Blauvelt has served as a scientific adviser and clinical study investigator for AbbVie, Amgen, AstraZeneca, Boehringer Ingelheim, Celgene, Dermira, Genentech, GSK, Janssen, Eli Lilly and Company, MedImmune, Merck, Novartis, Pfizer, Regeneron, Sandoz, Sanofi, UCB, and Vaneant, and as a paid speaker for Eli Lilly and Company. K Papp has received grant/research support from Abbott, Amgen, Anacor, Astellas, Celgene, Celtic, Dow Pharma, Eli Lilly and Company, and Galderma; has been a consultant for Abbott, 3M, Akesis, Allergan, Alza, Amgen, Astellas, Baxter, Boehringer Ingelheim, Celgene, Centocor, Cipher, Eli Lilly and Company, Forward Pharma, and Funxional therapeutics; and has served on speaker's bureaus for Abbott, Akesis, Amgen, and Astellas. R Langley has been a consultant for AbbVie, Eli Lilly and Company, and Amgen, and has served on speaker's bureaus for AbbVie, and Eli Lilly and Company. T Luger has received grant/research support from Novartis, Abbvie, Astellas, Galderma, La Roche Posay, MEDA Pharma, Janssen-Cilag, Biogen Idec, Janssen-Cilag, MEDA Pharma, Pfizer, and Wolff, and has been a consultant for AbbVie, Amgen, CERIES, Celgene, Clinuvel, La Roche Posay, Janssen, Pfizer, MEDA Pharma, Galderma, Symrise, Sandoz, Mundipharma, and Eli Lilly and Company. M Ohtsuki has been a consultant for miscellaneous pharma. C Leonardi has received grant/research support from AbbVie, Amgen, Anacor, Celgene, Coherus, Dermira, Eli Lilly and Company, Galderma, Janssen, Maruho, Merck, and Pfizer; has been a consultant for Abbvie, Amgen, Dermira, Janssen, Eli Lilly and Company, Leo, Sandoz, UCB, and Pfizer; and has served on the speaker's bureau for AbbVie. K Reich has served on the advisory board for AbbVie, Amgen, Biogen, Boehringer Ingelheim Pharma, Celgene, Forward Pharma, Janssen-Cilag, Leo, Eli Lilly and Company, Novartis, Pfizer, Regernon, Takeda, UCB Pharma, and Zenoport; has been a speaker and served as an author for AbbVie, Celgene, Janssen-Cilag, Leo, Eli Lilly and Company, Medac, and Novartis; has conducted clinical studies for AbbVie, Amgen, Boehringer Ingelheim Pharma, Celgene, Covagen, Forward Pharma, GlaxoSmithKline, Janssen-Cilag, Leo, Eli Lilly and Company, Medac, Merck Sharp & Dohme Corp, Novartis, Regeneron, Takeda, and UCB Pharma; and is a consultant for AbbVie, Boehringer Ingelheim Pharma, Covagen, Forward Pharma, Janssen-Cilag, Leo, Eli Lilly and Company, UCB Pharma, and Xenoport. L Zhang, S Ball, and C Ojeh are employees and minor stockholders of Eli Lilly and Company. K Gordon has received grant/research support from Eli Lilly and Company, Abbvie, Amgen, and Novartis, and has been a consultant for Eli Lilly and Company, Abbvie, Amgen, Celgene, Novartis, and Pfizer.
FUNDING/SUPPORT: The study was supported by Eli Lilly and Company.

PA-16: Efficacy and safety of onabotulinumtoxinA for moderate to severe forehead lines in subjects with upper facial lines

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BACKGROUND: This 12-mo, phase 3 study evaluated the safety and efficacy of onabotulinumtoxinA (onabotA) vs placebo (PBO) for forehead lines (FHL) with simultaneous upper facial lines (UFL) treatment.
METHODS: Neurotoxin-naive subjects with moderate/severe FHL, glabellar lines, and crow's feet lines (CFL) were randomized 2:2:1 to double-blind treatment with onabotA 40U (FG: frontalis 20U with glabellar complex 20U), 64U (UFL: FG 40U + CFL 24U), or PBO. After day 180, subjects could receive ≤2 open-label onabotA UFL treatments, with assessments to day 360. Achievement of ≥2-grade improvement in composite investigator/subject FHL severity on the Facial Wrinkle Scale (FWS) at maximum contraction (US primary endpoint, intent-to-treat [ITT] population) and investigator/subject none/mild FHL severity (EU coprimary endpoint, modified ITT [mITT] population [subjects with baseline Facial Lines Outcomes score ≥5, items 1, 4, 5]) were assessed at day 30. Also assessed were achievement of none/mild in FHL severity (investigator; ITT), ≥1-grade improvement in FHL severity at rest, and mostly/very satisfied on the Facial Lines Satisfaction Questionnaire (FLSQ; item 5 at day 60).
RESULTS: ITT and mITT populations comprised 787 subjects (onabotA FG, n = 318; onabotA UFL, n = 313; PBO, n = 156) and 568 subjects (onabotA FG, n = 222; onabotA UFL, n = 235; PBO, n = 111). At day 30, FWS ≥2-grade composite FHL improvement was achieved by more subjects with onabotA for FG (45.6%) and UFL (53.0%) vs PBO (0.6%; both $P < .001$). Achievement of FHL none/mild investigator/subject FWS ratings was also greater with onabotA for FG (90.5%/81.5%) and UFL (93.6%/88.9%) vs PBO (2.7%/3.6%; all $P < .0001$). FHL improvements were greater with onabotA vs PBO (ITT) based on FHL none/mild rating (FG, 90.3%; UFL, 94.9%; both $P < .0001$ vs PBO, 3.8%), ≥1-grade FHL improvement on FWS at rest (FG, 85.2%; UFL, 84.8%; both $P < .0001$ vs PBO, 18.7%), and mostly/very satisfied on FLSQ item 5 at day 60 (FG, 81.4%; UFL, 87.9%; both $P < .0001$ vs PBO, 3.2%); mITT analyses yielded similar findings. FHL improvement was maintained during open-label UFL treatment. Over 12 mos, 26.8% of onabotA-treated subjects reported treatment-related adverse events (AEs); 1 subject discontinued due to an AE that was unrelated to treatment. No new safety signals were detected with repeated, simultaneous UFL treatments.
CONCLUSION: OnabotA significantly improved the appearance of FHL in UFL-treated subjects; repeated treatments were well tolerated.
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DISCLOSURES: K De Boulle, P Werschler, MH Gold, S Bruce, G Sattler, and P Ogilvie serve as investigators for Allergan plc. C Mao, D Vitarella, X Lei, and B Hardas are employees of Allergan plc.

PA-17: Efficacy and safety of onabotulinumtoxinA for treatment of moderate to severe forehead lines

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BACKGROUND: This 12-month, phase 3 study evaluated the safety and efficacy of onabotulinumtoxinA (onabotA) vs placebo for moderate to severe forehead lines (FHL), with simultaneous glabellar complex (GL) treatment.
METHODS: Neurotoxin-naive subjects were randomized 3:1 to double-blind treatment with onabotA (40U: 20U FHL, 20U GL) or placebo administered via 10 injections. After day 180, subjects could receive ≤2 open-label onabotA treatments; assessments continued through day 360. Primary outcomes using Facial Wrinkle Scale (FWS) at day 30 were achievement of ≥2-grade improvement in FHL severity on composite investigator/subject assessments of FHL at maximum contraction (US primary endpoint, intent-to-treat [ITT] population) and achievement of none/mild FHL severity on investigator/subject assessments (EU coprimary endpoint, modified ITT [mITT] population, ie, randomized subjects with baseline Facial Lines Outcomes ≥5 on items 1, 4, and 5). Also assessed were achievements of none/mild in FHL severity (investigator; ITT only), ≥1-grade improvement in FHL severity at rest, and mostly/very satisfied on Facial Lines Satisfaction Questionnaire (FLSQ; item 5, day 60).
RESULTS: In total, the ITT and mITT populations comprised, respectively, 391 subjects (onabotA, n = 290; placebo, n = 101) and 254 subjects (onabotA, n = 194; placebo, n = 60). At day 30, achievement of FWS ≥2-grade composite improvement in FHL was significantly greater with onabotA (61.4%) vs placebo (0%; P < .0001; ITT). Achievement of none/mild in FHL investigator and subject FWS assessments were significantly greater with onabotA (94.8%/87.6%) vs placebo (1.7%/0.0%; $P = .003$, investigator; $P < .0001$, subject; mITT). FHL improvements were significantly greater with onabotA vs placebo (ITT) based on achievement of FHL none/mild rating (onabotA, 94.1%; PBO, 2.0%; $P < .0001$), ≥1-grade FWS improvement (onabotA, 85.6%; placebo, 19.8%; $P < .0001$), and FLSQ item 5, mostly/very satisfied (onabotA, 90.3%; placebo, 1.0%; $P < .0001$); mITT analyses yielded similar findings. Improvements in FHL were maintained during open-label treatment. With ≥1 onabotA treatment, 85/374 (22.7%) subjects experienced ≥1 treatment-

related adverse event (AE) and 2/374 (0.5%) discontinued due to an AE. No serious AEs were related to study treatment.
CONCLUSION: OnabotA significantly improved the appearance of FHL, with a high rate of subject satisfaction; repeated FHL/GL treatments maintained response and were well tolerated.
CORRESPONDENCE: Cheri Mao, mao_cheri@allergan.com.
DISCLOSURES: S Fagien, JL Cohen, W Coleman, G Monheit, and J Carruthers serve as investigators for Allergan plc. C Mao, D Vitarella, X Lei, and B Hardas are employees of Allergan plc.

PA-18: Efficacy and safety of topical dapsone gel 7.5% for treatment of acne vulgaris by Fitzpatrick Skin Type

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BACKGROUND: This analysis evaluated the safety and efficacy of once-daily dapsone gel 7.5% (DAP) in patients with acne vulgaris, stratified by Fitzpatrick skin type (I–III, IV–VI).
METHODS: Data were pooled from 2 identically designed, phase 3, multicenter, randomized, double-blind, vehicle (VEH)-controlled studies conducted in patients aged 12 years and older with moderate acne. Patients applied DAP or VEH topically once daily for 12 weeks. Efficacy was assessed using the investigator-assessed 5-point Global Acne Assessment Score (GAAS) and by lesion counts. Patients self-evaluated the impact of acne using the Acne Symptom and Impact Scale (ASIS). Adverse events (AEs) and dermal tolerability were also assessed.
RESULTS: In total, 4327 patients (2216 type I–III, 2111 type IV–VI) were included. Mean change from baseline at week 12 in GAAS scores was significantly greater with DAP vs VEH in patients with skin types I–III (–1.0 vs –0.8; $P < .001$) and IV–VI (–1.0 vs –0.9; $P < .001$). Additionally, 71.4% of patients with skin types I–III and 76.6% of patients with skin types IV–VI treated with DAP achieved ≥1-grade improvement in GAAS at week 12 compared with 62.8% and 67.9%, respectively, who received VEH ($P < .001$). In patients with skin types I–III and IV–VI, mean percent reduction from baseline to week 12 was significantly greater for DAP vs VEH in inflammatory lesions (types I–III: 54.3% vs 45.9%, $P < .001$; types IV–VI: 56.1% vs 51.0%, $P = .002$), comedones (types I–III: 45.5% vs 38.0%, $P < .001$; types IV–VI: 45.8% vs 41.4%, $P = .01$), and total lesions (types I–III: 48.9% vs 41.1%, $P < .001$; types IV–VI: 49.8% vs 45.1%, $P < .001$). For both skin type groups, improvements in inflammatory lesions occurred first, and similar patterns of improvement over time were seen in GAAS scores, comedones, and ASIS domains. Local dermal tolerability scores at week 12 and the incidence of reported AEs were similar in patients in both skin type groups and in patients treated with DAP and VEH.
CONCLUSION: Monotherapy with once-daily DAP was safe and effective for treatment of moderate acne in individuals with lighter and darker Fitzpatrick skin types, with significant improvement in overall acne severity and both inflammatory lesions and comedones.
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DISCLOSURES: SC Taylor, FE Cook-Bolden, A McMichael, JB Downie, DA Rodriguez, K Mariwalla, AF Alexis, and VD Callender serve as investigators for Allergan plc. N Fathali is an employee of Allergan plc.

PA-19: Efinaconazole 10% topical solution: case review of onychomycosis patients who were complete cures at Week 24.

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OBJECTIVE: To assess baseline demographics and disposition of onychomycosis patients who were complete cures at Week 24 following daily efinaconazole treatment.
METHODS: Post hoc analysis of two identical, multicenter, randomized, double-blind, vehicle-controlled studies in 1655 subjects aged 18-70 years with a clinical and mycological diagnosis of mild to moderate dermatophyte toenail onychomycosis (20-50% clinical involvement). Subjects were randomized (3:1) to efinaconazole 10% solution or vehicle, once-daily for 48 Weeks, with 4-week post treatment follow-up. Primary efficacy endpoint was complete cure, defined as 0% clinical involvement of the target toenail and mycological cure (negative KOH examination, and negative fungal culture of the target toenail sample). Case review of patients who were complete cures at Week 24.
RESULTS: Overall, 19 patients had a completely clear nail (0% clinical involvement) at Week 24, 13 patients were complete cures. These patients were predominantly younger (12/13 were aged <65 years), female (6/13), and with recent disease (5/13). No patient had recurrence of their disease over the following 28 weeks' treatment and follow-up. Achieving complete cure appears to be independent of baseline severity (20%-50% affected target toenail). Two male patients with moderate disease had clear nails by Week 12, although one experienced recurrence until Week 48.
CONCLUSION: Efinaconazole 10% topical solution has been

shown to be an effective and well-tolerated treatment for toenail onychomycosis. Although data suggest many patients will require long-term treatment as the toenail grows out, our case review highlights that some patients (typically younger females with recent disease who likely have faster growing, shorter nails) might expect to achieve complete cure within 24 weeks. Continued treatment appears to prevent recurrence.

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DISCLOSURES: B Elewski has received honoraria and grants while serving as a consultant and investigator for the following companies: Valeant Pharmaceuticals International Inc; Anacor Pharmaceuticals, Inc; Meiji Seika Pharma Co, and Viamet Pharmaceuticals, Inc. T Lin is an employee of Valeant Pharmaceuticals.

PA-20: Evaluation of physicochemical properties following syringe to syringe mixing of hyaluronic acid dermal fillers

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BACKGROUND: Mixing of soft tissue fillers with lidocaine, epinephrine, or saline to reduce pain or bruising has been described,[1] however, it has also been proposed that this process may alter the physicochemical properties of the filler.[2]

OBJECTIVE: The purpose of this study was to evaluate the properties of a soft tissue filler following dilution and syringe to syringe mixing.

METHODS: A crosslinked hyaluronic acid soft tissue filler (VYC-20L; 20 mg/mL) was diluted to 15 mg/mL by adding 0.25 mL of phosphate buffer to 0.75 mL of the dermal filler. A syringe containing the buffer was connected to the filler manufacturer's syringe with a luer lock and mixed by performing either 5 or 10 passes (one push and pull cycle was considered a pass). Once mixing was complete, the extrusion force was measured at a speed of 50 mm/min through a 30 gauge needle. Additionally, microscopy and videography were used to identify any inhomogeneities introduced by the mixing process. A commercially available, CE marked soft tissue filler (VYC-15L; 15 mg/mL) was used as a control.

RESULTS: The average extrusion force was higher for diluted samples than for the control article. Moreover, the extrusion graphs of diluted samples reveals an increase of the extrusion force along the displacement of the syringe (from the luer end to the plunger end). An increase in rugosity (roughness of the extrusion profile) was observed compared to the control. There were slight differences in the extrusion profile with increased mixing (10 vs 5 passes), however the increase in the extrusion force over the length of the syringe was still observed following 10 passes. Consistent with the extrusion force, the microscopic texture of the mixed hydrogel was observed to be particulate in nature when compared to the 15 mg/mL control. Further, differences in the microscopic appearance were observed across the length of the syringe with the material near the luer being more liquid and the material extruded from near the plunger more inhomogeneous, with large, visible particles. The control, unadulterated hydrogel had a consistent, smooth texture along the length of the syringe.

CONCLUSION: The results of this study show that dilution of soft tissue fillers with phosphate buffer by syringe to syringe mixing results in an inhomogeneous product most likely due to an inefficient mixing process. The resulting product is harder to extrude, with an inconsistent extrusion force and clear variation in the visual appearance of the filler across the length of the syringe, compared to a formulation designed and manufactured at the desired concentration.

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DISCLOSURES: MP Goldman is a consultant, has received honoraria from, and has performed research for Allergan plc, Alpheon, Galderma, and Merz. Julius Few serves on an advisory board for Allergan plc and Mentor; as a remunerated consultant for Allergan plc, Medicis, Palomar, Ulthera, and Venus Concepts; as a remunerated speaker for Allergan plc, Ulthera, and Venus Concepts; and has received research grants as an investigator for Allergan plc and Medicis. GT Shumate, S Binauld, S Pierre, and CK Hee are employees of and own stock or options in Allergan plc.

PA-21: Evaluation of the prevalence, risk factors, clinical characteristics, and burden of acne scars among active acne patients in Brazil, France and the USA

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OBJECTIVES: 1) Estimate acne scar prevalence among active acne patients who consulted a dermatologist; 2) identify/quantify acne scarring risk factors; 3) describe clinical characteristics of patients with acne scars.

METHODS: Dermatologists (Brazil, n = 120; France, n = 106; USA, n = 120) filled out a census form for each active acne patient seen in consultation over 5 consecutive days. For the first 4 patients with scars (the "scar cohort"), a case report form and a short questionnaire were filled out by the dermatologist and patient, respectively. Dermatologists recruited acne patients in Brazil (n = 1718, n = 480 survey respondents with scars), France (n = 1366, n = 420 survey respondents with scars), and the USA (n = 1972, n = 480 survey respondents with scars). Disease severity was assessed using a 5-point investigator global assessment scale.
RESULTS: Among active acne patients, 44% had scars in Brazil, 37% in France, and 43% in the USA. Among patients in Brazil, France, and the USA with different acne severities; 29.9%, 22.4%, and 27.9% of almost clear/mild patients had scars; 54.8%, 47.9%, and 50.7% of moderate patients had scars; and 73.8%, 78.6%, and 76.6% of severe/very severe patients had scars, respectively. Multivariate analysis revealed that severity, time between acne onset and effective treatment, and acne relapse were significant risk factors of scar development.
CONCLUSION: Scarring is frequent among patients with active acne. Acne of any severity can lead to scarring, although scars are more frequent in severe/very severe disease. Early treatment may effectively decrease acne scarring risk.
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DISCLOSURES: B Dréno has served as an advisor and consultant for Galderma International. A Layton has served as an advisor and consultant for Galderma International. V Bettoli has served as an advisor and consultant for Galderma International. VT Lozada has served as an advisor and consultant for Galderma Internation. MJ Rueda is a salaried employee of Galderma Laboratories, LP.
FUNDING/SUPPORT: This study was conducted on behalf of the Global Alliance to Improve Outcomes in Acne and sponsored by Galderma International and Galderma R&D. All authors are either unpaid consultants or employees of Galderma.

PA-22: Green synthesis and evaluation of natural cosmetics for tropical skins

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BACKGROUND: The maintenance of beautiful skin is the desire of many people all over the world, thus, the application of safe cosmetic products is inevitable. Many tropical cosmetics and spot remover are usually associated with side-effects which are sometimes not reversible.
OBJECTIVE: The objective of the research was to customise natural cosmetics products void of all artificial constituents for tropical skins and also identified key natural anti-tyrosinase compounds for dark spot removal in formulated cosmetics.
METHODS: An innovative green synthetic route was adopted for the direct characterisation of some conventional and non-conventional tropical seeds which include *Sebal causarium, Cola gigantea, Blighia sapida, Cordia sebestena, Daniellia oliveri, Elaeis guineensis, Citrus aurantifolia, Citrus paradise, Vitellaria paradoxa, Citrullus vulgaris, Mormodica charantea, Delonix regia, Moringa oleifera, Kigelia africana and Prosopis africana*. The principle of green chemistry was adopted for the preparation of natural antiseptic creams and soaps which were free of all artificial antibiotics, colourings, fragrance and preservatives. Isolated compounds were characterized using mass spectrometry, nuclear magnetic resonance and fourier transform infra-red spectroscopy. Various chemoinformatic tools were used to predict the binding mode and mechanism of active compounds for the anti-tyrosinase studies. Formulated cosmetics products were examined for various in vitro biochemical and dermatological parameters for efficacy and toxicities. The products were also examined against various skin pathogens.
RESULTS: Physicochemical parameters were in conformity with approved standards while the in vitro antimicrobial, antioxidant, anti-inflammatory and membrane stabilisation activities of the cosmetic were determined standard and comparable to commercial products in international markets. The natural cosmetics production was highly cost effective compared to commercial products. Some of the characterized isolate showed moderate anti-tyrosinase activity.
LIMITATIONS: Europe-made skin visiometer, visioscan, desquamater (visioline) for Sebun evaluation, effect on skin and desquamation evaluation respectively are currently being awaited for further standardization.
CONCLUSION: The standardised natural cosmetic products obtained via the principle of green Chemistry shows high quality relevant for tropical skins.
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DISCLOSURES: The authors have nothing to disclose.
FUNDING/SUPPORT: Authors gratefully acknowledge TWAS (UNESCO) research grant, 15-244 RG/CHE/AF/AC_G – FR3240287031 which partly supported the work.

PA-23: Imiquimod 2.5% and 3.75% for the treatment of photodamage: meta-analysis of efficacy and tolerability in 969 randomized patients

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BACKGROUND: In clinical studies of imiquimod for the treatment of actinic keratosis (AKs) there have been ad hoc reports that imiquimod may improve skin texture and also improve overall symptoms of photodamage.
OBJECTIVE: To assess the efficacy and tolerability of imiquimod 3.75% and 2.5% cream for the treatment of photodamage in patients being treated for AK of the full face or balding scalp.
METHODS: Meta-analysis of four identical multicenter, randomized, double-blind, placebo controlled studies in 969 adult subjects (aged 33-91 years) with 5 to 20 visible lesions, or palpable AKs in an area exceeding 25cm2 on either the face or balding scalp, randomized to imiquimod 3.75%, 2.5%, or vehicle cream (1:1:1). Up to two packets (250 mg each) were applied per dose once daily for two 2-week treatment cycles, separated by a 2-week, no-treatment interval. Photodamage improvement (including an integrated assessment of fine wrinkling, coarse wrinkling, mottled pigmentation, roughness, sallowness, skin laxity and telangiectasias) was assessed at study end based on subject's baseline assessment using a 7-point scale (where +3=significantly improved and
-3=significantly worse than baseline). Local skin reactions (LSRs) were recorded throughout the study.
RESULTS: Combined Investigator's Global Integrated Photodamage (IGIP) score was 'significantly' or 'much' improved in 57.6% (n = 175) patients treated with imiquimod 2.5% cream and 69.6% (n = 208) patients treated with imiquimod 3.37% cream, compared with 25.7% (n = 76) patients treated with placebo. Mean IGIP scores at end of study (EOS) were 1.62, 1.93 and 1.01 respectively. Only 6 patients (2.0%) treated with imiquimod 2.5% cream and 5 patients (1.7%) treated with imiquimod 3.75% cream reported worse photodamage at the end of the study. LSRs were similar in all four studies. Erythema was the most common LSR, with severe erythema being dose-dependent. Mean LSR sum scores returned to baseline at the end of the study.
LIMITATIONS: Photodamage was a tertiary endpoint in the studies and assessment made 4 months' post-baseline (8 weeks following conclusion of treatment). No assessment was made as to which aspects of photodamage were improved. It was not clear whether LSRs were at the site of the AKs or in treated skin between visible AKs.
CONCLUSION: In four well-controlled Phase 3 studies, both imiquimod 2.5% and 3.75% creams have shown a positive effect on photodamage when compared with placebo that would warrant further study to elucidate which aspects of photodamage benefit the most and the source of LSRs.
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DISCLOSURES: J Del Rosso and T Rosen are advisors to Valeant Pharmaceuticals. N Swanson was an investigator and B Berman was an advisor, consultant and speaker for Valeant.

PA-24: Improvements in cracking and scaling of psoriasis lesions with brodalumab in phase 3 studies

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BACKGROUND: Brodalumab is an interleukin-17RA antagonist with high skin clearance efficacy and safety in patients with moderate to severe plaque psoriasis. This study was an integrated analysis of cracking and scaling, common symptoms of psoriasis, in three phase 3, multicenter, randomized, double-blind, placebo- and active comparator–controlled studies in patients with moderate to severe psoriasis (AMAGINE-1/-2/-3).
OBJECTIVE: This analysis evaluated the impact of brodalumab on lesional cracking and scaling, as assessed by the psoriasis symptom inventory (PSI), a validated patient-reported outcome instrument.
METHODS: Patients were randomized to receive brodalumab (140 or 210 mg Q2W) or placebo and/or ustekinumab during the 12-week induction phase. Patients used a daily electronic diary to rate the severity of symptoms during the previous 24 hours on a PSI scale of 0 (not at all severe) to 4 (very severe). In addition to visual assessments of redness, scaling, cracking, and flaking symptoms, which were also included in PASI and sPGA investigator evaluations, the PSI assessed itch, burning, stinging, and pain symptoms. Daily assessments of cracking and scaling symptoms were analyzed as weekly PSI averages. At each study visit (including the baseline assessment), patients determined to be PSI responders reported an average weekly score ≤1.
RESULTS: Baseline mean PSI weekly averages for cracking and scaling, respectively, were 2.3 and 2.6 for the placebo group; 2.3 and 2.6 for brodalumab 140 mg; and 2.3 and 2.6 for brodalumab 210 mg. Mean scores were significantly lower with both doses of brodalumab relative to placebo for both endpoints by week 2 ($P < .001$), and remained significantly decreased through week 12. At baseline, the percentages of patients with cracking and scaling with an average weekly score ≤1 (responders) were 14.7% and 4.4% for the placebo group (n = 844); 14.1% and 5.6% for brodalumab 140 mg (n = 1458); and 14.3% and 4.2% for brodalumab 210 mg (n = 1458), respectively. By week 2, the percentages of responders had significantly increased from baseline with both doses of brodalumab for both endpoints ($P < .0001$ vs placebo). Increases from baseline in the percentages of responders were also observed at week 12 (placebo: 8.4% and 8.9%; brodalumab 140 mg: 55.0% and 58.2%; and brodalumab 210 mg: 65.0% and 72.5%, for cracking and scaling, respectively; $P < .0001$ for both brodalumab doses vs placebo for both endpoints). Combined analysis from the two phase 3 studies with ustekinumab as the active comparator (AMAGINE-2/-3) showed rapid improvements in response with brodalumab 140 and 210 mg relative to ustekinumab at week 2 (cracking, 46.9% and 54.7% vs 30.2%; scaling, 34.1% and 42.4% vs 16.8%) that persisted with brodalumab 210 mg through week 12 ($P < .001$).

LIMITATIONS: The results of these analyses were based on a controlled clinical study population and may not be generalizable to the broader population of patients with psoriasis.
CONCLUSION: Brodalumab led to statistically significant, rapid, and robust improvements in the lesional cracking and scaling symptoms of psoriasis compared with placebo or ustekinumab.
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DISCLOSURES: S Hsu has served as an investigator, consultant, or as an advisory board member for Centocor Biotech, Inc; Abbott Laboratories; Eli Lilly & Co; Genentech; Janssen Biotech, Inc; AbbVie, Inc; Sun Pharmaceutical Industries, Ltd/Ranbaxy; Medicis Pharmaceutical; Galderma SA; Promius Pharma, LLC; Dermik; Biogen; Amgen Inc, Novartis Pharmaceuticals Corporation; and Valeant Pharmaceuticals North America LLC. A Gottlieb currently serves as a consultant or as an advisory board member for Amgen Inc, Astellas Pharma, Inc; Akros, Inc; Centocor Biotech, Inc; Celgene Corporation; Bristol-Myers Squibb Co; Beiersdorf, Inc; Abbott Laboratories (AbbVie); TEVA Pharmaceutical Industries, Ltd; Actelion Pharmaceuticals US, Inc; UCB, Inc; Novo Nordisk A/S; Novartis Pharmaceuticals Corporation; DermiPsor, Ltd; Incyte Corp; Pfizer, Inc; Can-Fite BioPharma, Ltd; Eli Lilly & Co; Coronado; Vertex Pharmaceuticals, Inc; Karyopharm Therapeutics; CSL Behring; GlaxoSmithKline; XenoPort, Inc; Catabasis Pharmaceuticals; Meiji Seika Pharma Co, Ltd; Takeda Pharmaceuticals, Inc; Mitsubishi Tanabe Pharma America, Inc; Genentech, Inc; Baxalta; Kineta One, LLC; KPI Therapeutics; Crescendo Biosciences; Aclaris; Amicus; and Reddy Labs, Ltd. Dr Gottlieb has previously received research or educational grants (paid to Tufts Medical Center) from Centocor Biotech, Inc; Amgen Inc; Abbott Laboratories; Novartis Pharmaceuticals Corporation; Celgene Corporation; Pfizer, Inc; Eli Lilly & Co; Levia; Merck & Co, Inc; XenoPort, Inc; Dermira, Inc; and Baxalta. B Elewski is an employee of the University of Alabama at Birmingham, which receives research funds from Amgen Inc; AbbVie, Inc; Boehringer Ingelheim; Celgene Corporation; Incyte; Eli Lilly & Co; Merck & Co, Inc; Novan; Novartis Pharmaceuticals Corporation; Pfizer, Inc; Viamet; and Valeant Pharmaceuticals North America LLC. She has served as a consultant for Anacor Pharmaceuticals, Inc; Celgene Corporation; Eli Lilly & Co; Novartis Pharmaceuticals Corporation; Pfizer, Inc; Sun Pharmaceutical Industries, Ltd; and Valeant Pharmaceuticals North America LLC. S Rastogi and RJ Israel are employees of Valeant Pharmaceuticals North America LLC and may hold stock and/or stock options in the company. R Pillai is an employee of Dow Pharmaceutical Sciences (a division of Valeant Pharmaceuticals North America LLC) and may hold stock and/or stock options in the company.
FUNDING/SUPPORT: This study was sponsored by Amgen Inc. Medical writing support was provided by MedThink SciCom and funded by Valeant Pharmaceuticals North America LLC.

PA-25: Improvements in lesional pain and itch symptoms with brodalumab in psoriasis studies

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BACKGROUND: The efficacy and safety of brodalumab, an interleukin-17RA antagonist, in the treatment of psoriasis have been previously reported. This study was an integrated analysis of three phase 3, multicenter, randomized, double-blind, placebo- and active comparator–controlled studies (AMAGINE-1/-2/-3) in patients with moderate to severe psoriasis.
OBJECTIVE: To evaluate the effect of brodalumab on lesional pain and itch, as assessed by the psoriasis symptom inventory (PSI), a validated patient-reported outcome instrument.
METHODS: Patients were randomized to receive brodalumab (140 or 210 mg Q2W) or placebo and/or ustekinumab during the 12-week induction phase. Patients used a daily electronic diary to rate the severity of symptoms during the previous 24 hours on a PSI scale of 0 (not at all severe) to 4 (very severe). In addition to visual assessments of redness, scaling, cracking, and flaking symptoms, which were also included in PASI and sPGA investigator evaluations, the PSI assessed itch, burning, stinging, and pain symptoms. Daily assessments of pain and itch symptoms were analyzed as weekly PSI averages. At each study visit (including the baseline assessment), patients determined to be PSI responders reported an average weekly score ≤1.
RESULTS: Baseline mean PSI weekly averages for pain and itch, respectively, were 2.0 and 2.6 for the placebo group; 2.0 and 2.6 for brodalumab 140 mg; and 2.0 and 2.5 for brodalumab 210 mg. Mean scores were significantly lower with both doses of brodalumab relative to placebo for both endpoints by week 2, and remained significantly decreased through week 12 ($P < .001$). At baseline, the percentages of patients with average weekly PSI scores ≤1 (responders) for pain and itch were 24.2% and 5.5% for the placebo group (n = 844); 23.4% and 6.7% for brodalumab 140 mg (n = 1458); and 23.4% and 6.2% for brodalumab 210 mg (n = 1458). By week 2, the percentages of responders for both endpoints had significantly increased from baseline with both doses of brodalumab ($P < .0001$ vs placebo). Increases from baseline in the percentages of responders were also observed at week 12 (placebo: 9.3% and 7.7%; brodalumab 140 mg: 47.7% and 54.1%; and brodalumab 210 mg: 55.1% and 65.1%, for pain and itch, respectively; $P < .0001$ for both brodalumab doses vs placebo for both endpoints). A combined analysis from the two phase 3 studies with ustekinumab as the active comparator (AMAGINE-2/-3) showed rapid improvements in response with brodalumab 140 and 210 mg vs ustekinumab at week 2 (pain, 55.7% and 62.4% vs 44.4%; itch, 30.9% and 36.4% vs 17.1%) that persisted with brodalumab 210-mg treatment through week 10 for pain and week 12 for itch ($P < .01$).
LIMITATIONS: The results of these analyses were based on a controlled clinical study population and may not be generalizable to the broader population of patients with psoriasis.

CONCLUSION: Patients treated with brodalumab showed rapid and robust improvements in pain and itch symptoms relative to placebo and ustekinumab.
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DISCLOSURES: LF Eichenfield has served as a consultant for Amgen Inc, and as a consultant and investigator for Valeant Pharmaceuticals North America LLC. A Armstrong has served as a consultant for AbbVie, Inc; Amgen Inc; Janssen; Merck & Co, Inc; Eli Lilly & Co; Novartis Pharmaceuticals Corporation; and Pfizer, Inc; and has served as an investigator for AbbVie, Inc; Janssen; and Eli Lilly & Co; and as a member of the speaker's bureau for AbbVie, Inc. L Green has served as an investigator, consultant, or speaker for Amgen Inc; AbbVie, Inc; Celgene Corporation; Janssen Biotech, Inc; Merck & Co, Inc (MSD); Novartis Pharmaceuticals Corporation; and Valeant Pharmaceuticals North America LLC. S Rastogi and RJ Israel are employees of Valeant Pharmaceuticals North America LLC and may hold stock and/or stock options in the company. R Pillai is an employee of Dow Pharmaceutical Sciences (a division of Valeant Pharmaceuticals North America LLC) and may hold stock and/or stock options in the company.
FUNDING/SUPPORT: This study was sponsored by Amgen Inc. Medical writing support was provided by MedThink SciCom and funded by Valeant Pharmaceuticals North America LLC.

PA-26: Integrated safety of ixekizumab in patients with moderate to severe psoriasis: results from a pooled analysis of 7 clinical trials

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BACKGROUND: In moderate to severe psoriasis, long-term treatment is usually required to achieve adequate control of disease activity.
OBJECTIVE: This publication analyzes the safety of ixekizumab (IXE), a high-affinity monoclonal antibody that selectively targets interleukin (IL)-17A and is approved for treatment of patients with psoriasis.
METHODS: Treatment-emergent adverse event (TEAE) and serious adverse event (SAE) data were integrated from the induction period of 3 randomized, controlled trials [RCTs] (0-12 weeks), the maintenance period of 2 of the 3 RCTs with a randomized withdrawal design (12-60 weeks), and all patients exposed to IXE from all 7 psoriasis trials (controlled and uncontrolled). For the induction period, patients with moderate to severe psoriasis were randomized to IXE every 2 (IXE Q2W; N = 1167) or 4 weeks (IXE Q4W; N = 1161) after a 160 mg starting dose, etanercept (ETN) (50 mg biweekly; N = 739), or placebo (PBO) (N = 791). The maintenance period included IXE-treated patients who had an sPGA 0,1 at Week 12 (responders) who then were re-randomized to IXE Q4W (N = 416), IXE every 12 weeks (IXE Q12W, N = 408), or PBO/withdrawal group (N = 402). The group of all patients exposed to IXE (N = 4209) accounted for 6480 patient-years of exposure. Comparison of induction and maintenance periods was descriptive.
RESULTS: During the induction period, the frequency of any TEAE was higher in Total IXE (58.6%), IXE Q2W (58.4%), IXE Q4W (58.8%), and ETN (54.0%) compared to PBO (46.8%). Most TEAEs were mild or moderate. The frequency of AEs reported as severe, SAEs, and discontinuations due to AEs did not differ among treatment groups. During the maintenance period, the exposure-adjusted incidence rate (IR – per hundred patient-years) of TEAEs was lower for IXE Q4W patients than for the PBO/withdrawal group (IR: PBO, 123.8; IXE Q12W, 106.2; IXE Q4W, 95.6), with no significant difference observed between the IXE Q12W and IXE Q4W groups. The IR of TEAEs was lower during the maintenance phase than during the induction phase among patients who received continued dosing on IXE Q4W (99.3 and 256.8, respectively). Among all patients exposed to IXE, the exposure-adjusted IR of TEAEs was 54.4. Most TEAEs were mild or moderate.
LIMITATIONS: Comparison to ETN was only for 12 weeks.
CONCLUSION: IXE had a safety profile that was similar to ETN during the induction period. The overall incidence of AEs in the Q2W and Q4W dosing regimens was similar.
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DISCLOSURES: B Strober has served on speaker's bureaus for AbbVie (honoraria); has been a consultant for AbbVie, Amgen, Celgene, Dermira, Forward Pharma, Janssen, Leo, Eli Lilly and Company, Maruho, Medac, Novartis, Pfizer, Stiefel/GlaxoSmithKline, UCB, and Boehringer Ingelheim (honoraria for all); has been an investigator for AbbVie, Amgen, Novartis, Eli Lilly and Company, Janssen, Merck, XenoPort, Xoma, and Celgene (payments to the University of Connecticut); has been a scientific director for CORRONA Psoriasis Registry (consulting fee); and has received grant support to the University of Connecticut for Fellowship Program from AbbVie and Janssen (payments to the University of Connecticut). K Papp has received grant/research support from Abbott, Amgen, Anacor, Astellas, Celgene, Celtic, Dow Pharma, Eli Lilly and Company, and Galderma; has been a consultant for Abbott, 3M, Akesis, Allergan, Alza, Amgen, Astellas, Baxter, Boehringer Ingelheim, Celgene, Centocor, Cipher, Eli Lilly and Company, Forward Pharma, and Funxional therapeutics; and has served on speaker's bureaus for Abbott, Akesis, Amgen, and Astellas. C Leonardi has received grant/

research support from AbbVie, Amgen, Anacor, Celgene, Coherus, Dermira, Eli Lilly and Company, Galderma, Janssen, Maruho, Merck, and Pfizer; has been a consultant for Abbvie, Amgen, Dermira, Janssen, Eli Lilly and Company, Leo, Sandoz, UCB, and Pfizer; has served on the speaker's bureau for AbbVie. R Bissonette, L Ferris, and U Mrowietz are consultants for Eli Lilly and Company and miscellaneous pharma. M Lebwohl is an employee of the Mount Sinai Medical Center, which receives research funds from AbGenomics, Amgen, Anacor, Boehringer Ingelheim, Celgene, Ferndale, Eli Lilly and Company, Janssen Biotech, Kadmon, Leo Pharmaceuticals, MedImmune, Novartis, Pfizer, Sun Pharmaceuticals, and Valeant. D Braun was an employee of Eli Lilly and Company at the time of the study. N Acharya, W Xu, and C Ojeh are employees and minor stockholders of Eli Lilly and Company.

FUNDING/SUPPORT: This study was supported by Eli Lilly and Company. K Reich has served on advisory boards for AbbVie, Amgen, Biogen, Boehringer Ingelheim Pharma, Celgene, Forward Pharma, Janssen-Cilag, Leo, Eli Lilly and Company, Novartis, Pfizer, Regernon, Takeda, UCB Pharma, and Zenoport; has been a speaker and served as an author for AbbVie, Celgene, Janssen-Cilag, Leo, Eli Lilly and Company, Medac, and Novartis; has conducted clinical studies for AbbVie, Amgen, Boehringer Ingelheim Pharma, Celgene, Covagen, Forward Pharma, GlaxoSmithKline, Janssen-Cilag, Leo, Eli Lilly and Company, Medac, Merck Sharp & Dohme Corp, Novartis, Regeneron, Takeda, and UCB Pharma; and is a consultant for AbbVie, Boehringer Ingelheim Pharma, Covagen, Forward Pharma, Janssen-Cilag, Leo, Eli Lilly and Company, UCB Pharma, and Xenoport.

PA-27: Ixekizumab in patients with moderate to severe psoriasis who have or have not received prior biologic therapies: an integrated analysis of two phase 3 studies

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BACKGROUND: There is evidence that response rates to a biologic therapy may be lower in patients who have had previous exposure to other biologic therapies.[1] Ixekizumab (IXE) is a high-affinity monoclonal antibody that selectively targets interleukin (IL)-17A and is approved for treating patients with moderate to severe psoriasis.

OBJECTIVE: In this integrated analysis, we evaluated the efficacy of IXE compared to etanercept (ETN) in patients who have or have not had previous exposure to biologic therapy.

METHODS: Data were integrated from the 12-week induction phase of two Phase 3 trials. Patients were randomized to one of the following treatment groups: IXE 80 mg every 2 weeks (IXE Q2W; N = 736) or 4 weeks (IXE Q4W; N = 733) following a 160 mg starting dose, ETN 50 mg twice weekly (N = 740), or placebo (PBO; N =361). Psoriasis Area and Severity Index (PASI) 75, 90, and 100 response rates and Itch Numeric Rating Scale (NRS) were evaluated at Week 12 in subgroups of patients with or without previous exposure to biologic therapy. Treatment effects within each subgroup were assessed using the Cochran-Mantel-Haenszel test stratified by study; missing values were imputed as nonresponse.

RESULTS: In this analysis, 497 (19.3%) patients had prior exposure to biologic therapy and 2073 (80.7%) were naïve to biologic therapy. PASI 75 was achieved by 91.5% (biologic-experienced) and 87.7% (biologic-naïve) of patients treated with IXE Q2W, 76.2% and 82.2% treated with IXE Q4W compared to 34.6% and 50.7% treated with ETN, respectively. PASI 90 was achieved by 76.1% (biologic-experienced) and 67.7% (biologic-naïve) of patients treated with IXE Q2W, 55.2% and 64.4% treated with IXE Q4W, and 13.2% and 24.3% treated with ETN. PASI 100 was achieved by 47.2% (biologic-experienced) and 37.0% (biologic-naïve) of patients treated with IXE Q2W, 25.2% and 34.9% treated with IXE Q4W, and 3.7% and 7.0% treated with ETN ($P < .001$ for all comparison between IXE and ETN). At least 4 points of reduction in Itch NRS were achieved by 82.4% (biologic-experienced) and 84.1% (biologic-naïve) of patients from the IXE Q2W arm, 80.3% and 77.9% from the IXE Q4W arm, and 55.0% and 62.4% from the ETN arm.

LIMITATIONS: Reasons for discontinuation of prior biologic therapy were not systematic.

CONCLUSION: In this integrated analysis across two phase 3 trials, both doses of IXE were significantly superior to ETN for biologic-naïve and biologic-experienced patients. The IXE Q2W dosing regimen consistently provided greater efficacy relative to the IXE Q4W dosing regimen.

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DISCLOSURES: A Gottlieb has current consulting/advisory board agreements with Amgen Inc, Astellas, Akros, Centocor (Janssen), Inc, Celgene Corp, Bristol Myers Squibb Co, Beiersdorf, Inc, Abbott Labs (Abbvie), TEVA, Actelion, UCB, Novo Nordisk, Novartis, Dermipsor Ltd, Incyte, Pfizer, Canfite, Lilly, Coronado, Vertex, Karyopharm, CSL Behring Biotherapies for Life, GlaxoSmithKline, Xenoport, Catabasis, Meiji Seika Pharma Co, Ltd, Takeda, Mitsubishi Tanabe Pharma Development America, Inc, Genentech, and Baxalta; and has received re-

search/educational grants (paid to Tufts Medical Center) from Centocor (Janssen), Amgen, Abbott (Abbvie), Novartis, Celgene, Pfizer, Lilly, Coronado, Levia, Merck, Xenoport, Dermira. BS Gerdes and N Korman are consultants for Eli Lilly and Company and miscellaneous pharma. J Lacour is an investigator of UNCOVER-2 and a consultant of Eli Lilly and Company. K Papp has received grant/research support from: Abbott, Amgen, Anacor, Astellas, Celgene, Celtic, Dow Pharma, Eli Lilly and Company, and Galderma; has been a consultant for Abbott, 3M, Akesis, Allergan, Alza, Amgen, Astellas, Baxter, Boehringer Ingelheim, Celgene, Centocor, Cipher, Eli Lilly and Company, Forward Pharma, and Funxional therapeutics; and has served on speaker's bureaus for Abbott, Akesis, Amgen, and Astellas. Y Dutronc, S Wilhelm, L Mallbris, L Zhang, J Erickson, A Schacht, and C Ojeh are employees and minor stockholders of Eli Lilly and Company. H Bachelez has been a consultant for Amgen, AbbVie, Baxalta, Boehringer Ingelheim, Celgene, Janssen, Leo Pharma, Eli Lilly and Company, Merck, Novartis, Pfizer, and Sandoz; has been a clinical investigator for Amgen, AbbVie, Boehringer Ingelheim, Celgene, Janssen, Leo Pharma, Eli Lilly and Company, Merck, Novartis, and Pfizer; and has received grant support from Pfizer.

FUNDING/SUPPORT: The study was supported by Eli Lilly and Company.

PA-28: Maintenance of clinical efficacy in moderate to severe plaque psoriasis: a 52-week evaluation of brodalumab in three multicenter, double-blind studies of 4363 subjects.

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BACKGROUND: Psoriasis is a chronic, immune-mediated disease characterized by thick, scaly plaques. It has a debilitating effect on quality of life with higher risk for anxiety and depression. The interkeukin-17 (IL-17) pathway plays an important role in the disease pathogenesis. Brodalumab, a fully human interleukin-17 receptor A (IL-17RA) monoclonal antibody, has demonstrated efficacy in phase 2 and phase 3 trials in patients with moderate to severe plaque psoriasis.
OBJECTIVE: To investigate the maintenance of efficacy of brodalumab in subjects with moderate or severe plaque psoriasis.
METHODS: Three multicenter, randomized, double-blind studies in moderate to severe psoriasis (N = 4632, safety population); two were ustekinumab-controlled. AMAGINE-1: Following a 12-week brodalumab or placebo induction phase subjects were rerandomized to brodalumab (210mg Q2W, 140mg Q2W) or placebo. AMAGINE-2 and -3: Following a 12-week brodalumab, ustekinumab or placebo induction phase subjects were rerandomized to brodalumab (210mg Q2W, 140mg Q2W, 140mg Q4W, 140mg Q8W) or remained on ustekinumab for a further 40 weeks. Maintenance of efficacy was assessed by the proportion of subjects who achieved static Physician's Global Assessment (sPGA) success (0 or 1), and those with Psoriasis Area and Severity Index (PASI) response (PASI 100) at week 52.
RESULTS: AMAGINE-1: 75.7% and 53.9% of subjects achieved sPGA success (clear or almost clear) at week 12 with brodalumab 210mg Q2W and 140mg Q2W, respectively. 83.1% and 70.2% of subjects rerandomized to continue with brodalumab 210mg Q2W or 140mg Q2W respectively achieved sPGA success at week 52, compared with 0% and 5% of subjects respectively who were rerandomized to placebo (both $P < .001$). AMAGINE-2 and AMAGINE-3: At week 12, 79.9% of subjects treated with brodalumab 210mg Q2W achieved sPGA success compared with 61.2% on ustekinumab, and 41.6% achieved PASI 100 compared with 20.7% on ustekinumab. At week 52, 64.9% of subjects on constant dose brodalumab 210mg Q2W achieved sPGA success compared with 45.3% on ustekinumab, and 51.0% achieved PASI 100 compared with 28.1% on ustekinumab (both, $P < .001$).
CONCLUSION: The significant improvements in clinical outcomes seen with brodalumab treatment were maintained through week 52 with continued treatment. Results with brodalumab 210mg Q2W were significantly superior compared to ustekinumab.

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DISCLOSURES: KA Papp has served as a consultant, scientific officer, member of a speaker's bureau, advisory board or steering committee, or received research grants or honoraria from AbbVie, Inc, Akesis Pharmaceuticals, Inc, Akros, Inc, Allergan, Plc, Alza Corporation, Amgen Inc, Anacor Pharmaceuticals, Artax Biopharma, Inc,, Astellas Pharma, Inc, AstraZeneca, Baxter, Baxalta, Boehringer Ingelheim, Bristol-Myers Squibb, Can-Fite BioPharma, Celgene Corporation, Celtic Pharma, Cipher Pharmaceuticals, Inc, Dermira, Inc, Dow Pharma, Eli Lilly & Co, Ferring Pharmaceuticals, Inc, Formycon AG, Forward Pharma A/S, Fujisawa Pharmaceuticals Co, Inc, Fuxional Therapeutics, Ltd, Galderma SA, Genentech, Inc, Genexion SA, Genzyme Corporation, Gilead Sciences, GlaxoSmithKline, Plc, Janssen Pharmaceutica, Kyowa Hakko Kirin Co, Ltd, LEO Pharma, MedImmune, Inc, Meiji Seika Pharma Co, Merck & Co, Inc (MSD), Merck Serono, Mitsubishi Tanabe Pharma, Mylan, Novartis AG, NovImmune SA, Pan-Genetics Pharmaceutical Corporation, Pfizer, Inc Regeneron Pharmaceuticals, Inc Roche, Sanofi-Aventis US LLC, Stiefel Laboratories, Takeda Pharmaceuticals, Inc, UCB, Inc, Valeant Pharmaceuticals North America LLC, and Vertex Pharmaceuticals, Inc. M Lebwohl is an employee of Mount Sinai, which receives research funds from Amgen Inc, Anacor Pharmaceuticals, Boehringer

Ingelheim, Celgene Corporation, Eli Lilly, Janssen Biotech, Inc, Kadmon Corporation, LEO Pharma, MedImmune, Inc, Novartis, Pfizer, Inc, Sun Pharmaceutical Industries, Ltd, and Valeant Pharmaceuticals North America LLC. L Green is an investigator, consultant, and or speaker for Amgen, Abbvie, Celgene, Janssen, Merck, Novartis, and Valeant. P Yamauchi is a consultant/speaker for AbbVie, consultant/speaker/principal investigator/advisor for Amgen, consultant/speaker/principal investigator for Celgene, principal investigator/advisor for Dermira, speaker/principal investigator for Galderma, consultant/speaker/principal investigator for Janssen-Ortho, speaker/principal investigator for Leo Pharma, principal investigator/advisor for Lilly ICOS, principal investigator for Medimmune, consultant/speaker/principal investigator for Novartis, consultant/ principal investigator for Pfizer, consultant/principal investigator for Regeneron. S Rastogi, R Israel and R Pillai are employees of Valeant Pharmaceuticals.

PA-29: Pathophysiology of rosacea, clinical presentation, and new therapeutics: a review

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BACKGROUND: Rosacea is a globally prevalent and chronic inflammatory skin condition that encompasses a variety of signs and symptoms, including erythema (vasodilation), papules/pustules (inflammatory infiltrate), and phymata (fibrosis, glandular hyperplasia). While much has been learned about the pathophysiological mechanisms contributing to the variable clinical presentation and progression of rosacea, many questions remain.
METHODS: This review summarizes the available therapeutics, and discusses the current state of knowledge concerning the biological systems and clinical facets of rosacea.
RESULTS: Recent research suggests that innate immune receptors and ion channels are activated in response to rosacea-associated triggers (eg, heat, stress, and microbiota) resulting in the activation of neurovascular, innate, and adaptive inflammatory pathways that dictate the variegated clinical presentation of rosacea. Identification of the molecular components of the cathelicidin, IL-1β inflammasome, neurogenic inflammatory cascades, and their physiological activities allow us to propose theoretical models to explain phenotypic outcomes in rosacea.
CONCLUSION: Most therapeutics currently available target neurovascular, innate, and adaptive inflammatory pathways that are activated in rosacea. However, despite recent progress, further translational research is needed to validate the molecular pathways implicated in rosacea.
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DISCLOSURES: M Steinhoff has no conflicts of interest to report. AD Holmes and M Rueda are salaried employees of Galderma Laboratories, LP.

PA-30: Prevalence of psoriatic arthritis: is psoriatic arthritis underdiagnosed in psoriasis patients seen in dermatology clinics?

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BACKGROUND: Psoriatic arthritis (PsA) is a heterogeneous multifaceted inflammatory arthritis associated with psoriasis (PsO). PsA causes a substantial disease burden and has a significant societal health impact. Accurately determining the prevalence of PsA can be difficult due to variations in disease presentation over time, changes in disease classification and specialty of the treating physician.
OBJECTIVE: The aim of this study was to perform a systematic literature review of the prevalence of PsA and to identify potential determinants.
METHODS: A systematic literature search of English-language articles was conducted in October 2015 using MEDLINE, EMBASE, and CINAHL, and was limited to articles published between 2009 and 2015. The systematic literature review was conducted by two independent reviewers in compliance with the PRISMA Statement.
RESULTS: Thirty-nine studies (23 clinical studies, 10 database analyses, and 6 population-based surveys) were included. In the majority (n = 38), the diagnosis of PsA was made by physicians using different classification criteria: Classification Criteria for Psoriatic Arthritis (CASPAR) criteria (n = 14), CASPAR and Moll and Wright (M&W) criteria (n = 2), CASPAR and Gladman modification of M&W criteria (n = 1), CASPAR and Assessment of Spondyloarthritis International Society criteria (n = 1), classification criteria not reported (n = 20). In the reviewed articles, only point prevalence rates for PsA were reported which ranged between 0.02% to 0.67% in the adult population, and 3% to 42% in patients with PsO, with rates differing across countries. PsA seemed to be most prevalent in the 50–59 years age-group. PsA was more common among first-degree relatives of patients with PsA and showed marked differences between different ethnic groups. The results of studies on gender differences were conflicting: some reported that PsA was more frequent in men and others the opposite. In the studies reviewed, the majority of PsA patients had peripheral symptoms without axial involvement. Findings of studies estimating the prevalence of PsA in PsO patients suggested that 29% to 41% of PsO patients attending dermatology clinics had undiagnosed PsA.
CONCLUSION: The high variance of prevalence rates can be explained with the differences in study populations, diagnostic methods, and classification criteria of PsA. Findings of the epidemiological studies measuring the prevalence of PsA in PsO patients suggested that a large proportion of patients with PsO seen in dermatology centers might have PsA that had not been previously diagnosed. Given that untreated PsA may result in

irreversible joint damage, increased awareness of this condition among PsO patients may be a critical step in reducing disability in this patient population. Further research is needed to better understand the occurrence of PsA.

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DISCLOSURES: T Ágh, Z Vokó, O Heisel, L Szilberhorn, and P Keown: Employees of Syreon Corporation, which received funding for this research from Novartis Pharmaceuticals Canada Inc. S Chiva-Razavi and M Barbeau: Employees of Novartis Pharmaceuticals Canada Inc.

FUNDING/SUPPORT: This research was sponsored by Novartis Pharmaceuticals Canada Inc.

PREVIOUS PRESENTATION: These results were originally presented at the 25th Annual Congress of the European Academy of Dermatology and Venereology, Vienna, Austria; September 28–October 2, 2016.

PA-31: Rapid onset of efficacy in patients with psoriasis treated with ixekizumab: a pooled analysis of date from two phase 3 randomized clinical trials (UNCOVER-2 and UNCOVER-3)

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BACKGROUND: For patients with psoriasis, rapid onset of clinical improvement is one of the most important attributes of treatment success.[1] In addition, it has been demonstrated that clinical improvement observed early during treatment has predictive value for subsequent clinical response at later time points.[2]

OBJECTIVE: In this analysis, we evaluated the speed of onset of clinical improvement in psoriasis patients treated with ixekizumab (IXE), a high-affinity monoclonal antibody that selectively targets interleukin (IL)-17A, compared with placebo and the active comparator, etanercept (ETN).

METHODS: Combining data from the 12-week induction phase of UNCOVER-2 and UNCOVER-3, 2570 patients with moderate to severe plaque psoriasis were randomized to receive placebo (PBO, n = 361), high-dose ETN (50 mg bi-weekly, n = 740), or a single 80 mg subcutaneous injection of IXE once every 2 weeks (IXE Q2W, n = 736) or every 4 weeks (IXE Q4W, n = 733) after receiving a 160 mg initial dose at Week 0. Mean percentage improvement was analyzed by MMRM and response rates by Cochran-Mantel-Haenszel test, where missing data were imputed using nonresponse. Time to PASI 75 was estimated using the Kaplan-Meier product limit methodology.

RESULTS: Significant differences in mean percent change from baseline (improvement) in the PASI were observed between the IXE treatment groups compared with PBO and ETN as early as Week 1 ($P < .001$) with mean (SE) percent improvements of 32.7 (0.76) in IXE Q2W, 33.6 (0.76) in IXE Q4W, 5.31 (1.08) in PBO, and 10.3 (0.76) in ETN. At Week 2, the mean percent improvement was 53.7 (0.86) in IXE Q2W, 53.3 (0.86) in IXE Q4W, 9.25 (1.23) in PBO, and 23.3 (0.86) in ETN. At Week 1, the PASI 50 response rate was 22.8% in the IXE Q2W and 26.6% in IXE Q4W compared with 1.4% in PBO ($P < .001$) and 3.9% in ETN ($P < .001$), and at Week 2, the PASI 50 response rate was 58.8% in the IXE Q2W and 57.6% in IXE Q4W compared to 4.2% in PBO ($P < .001$), and 14.6% in ETN ($P < .001$). Median time (95% CI) to PASI 75 was 31 (30,55) days in the IXE Q4W group, 30 (29,43) days in the IXE Q2W group, and 85 (85,87) days for the ETN group.

LIMITATIONS: This analysis was performed using 2 clinical trials and results may not be generalizable to a larger population or other active comparators.

CONCLUSION: IXE treatment resulted in clinically meaningful improvements (PASI 50) observed as early as Week 1, which were statistically significantly different compared with ETN and PBO. At least 50% of patients had a PASI 75 after approximately 4 weeks of IXE treatment.

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DISCLOSURES: C Leonardi has received grant/research support from AbbVie, Amgen, Anacor, Celgene, Coherus, Dermira, Eli Lilly and Company, Galderma, Janssen, Maruho, Merck, and Pfizer; has been a consultant for Abbvie, Amgen, Dermira, Janssen, Eli Lilly and Company, Leo, Sandoz, UCB, and Pfizer; and has served on the speaker's bureau for AbbVie. R. Langley is a consultant of AbbVie, Eli Lilly and Company, and Amgen, and has served on speaker's bureaus for AbbVie and Eli Lilly and Company. A Blauvelt has served as a scientific adviser and clinical study investigator for AbbVie, Amgen, AstraZeneca, Boehringer Ingelheim, Celgene, Dermira, Genentech, GSK, Janssen, Eli Lilly and Company, MedImmune, Merck, Novartis, Pfizer, Regeneron, Sandoz, Sanofi, UCB, and Vaneant, and has been a paid speaker for Eli Lilly and Company. K. Gordon has received grant/research support from Eli Lilly and Company, AbbVie, Amgen, and Novartis, and has been a consultant for Eli Lilly and Company, AbbVie, Amgen, Celgene, Novartis, and Pfizer. D Shrom, L Kerr, I Stoykov, and C Ojeh are employees and minor stockholders of Eli Lilly and Company. K Reich has served on the advisory board for AbbVie, Amgen, Biogen, Boehringer Ingelheim Pharma, Celgene, Forward Pharma, Janssen-Cilag, Leo, Eli Lilly and Company, Novartis, Pfizer, Regernon, Takeda, UCB Pharma, and Zenoport; has been a speaker and served as an author for AbbVie,

Celgene, Janssen-Cilag, Leo, Eli Lilly and Company, Medac, and Novartis; has conducted clinical studies for AbbVie, Amgen, Boehringer Ingelheim Pharma, Celgene, Covagen, Forward Pharma, GlaxoSmithKline, Janssen-Cilag, Leo, Eli Lilly and Company, Medac, Merck Sharp & Dohme Corp, Novartis, Regeneron, Takeda, and UCB Pharma; and is a consultant for AbbVie, Boehringer Ingelheim Phrama, Covagen, Forward Pharma, Janssen-Cilag, Leo, Eli Lilly and Company, UCB Pharma, and Xenoport.

FUNDING/SUPPORT: The study was supported by Eli Lilly and Company.

PA-32: Rates of depression in patients with psoriasis

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BACKGROUND: Psoriasis is a chronic inflammatory skin condition with various systemic comorbidities including psychiatric disorders. Often due to limited experience of dermatologists, psychiatric comorbidities are often not adequately addressed or treated. An increased risk of depression and suicidal ideation and behavior (SIB) has been shown in patients with psoriasis in a number of studies. Recently, the association between these psychiatric disorders and psoriasis has become a popular topic due to new and emerging therapies, such as apremilast and brodalumab, which may be associated with these comorbidities.

OBJECTIVE: The purpose of this review is to provide an overview for clinicians on the relationship between depression and psoriasis, focusing on rates within the psoriasis population and in comparison to non-psoriatic patients.

METHODS: A systematic literature search was conducted to extract relevant estimates of rates and risk of depression in patients with psoriasis. The literature search was limited to articles written in English. Relevant articles retrieved from references were also reviewed. Review articles, case series/reports, and commentaries were excluded.

RESULTS: Seventy-two relevant studies were reviewed. Population demographics, sample size, and methods of assessing for depression greatly varied between studies. The rate of depression in patients with psoriasis assessed with validated questionnaires ranged from 6.8% to 62% while a diagnosis of clinical depression ranged from 4.32 to 50%. Studies calculating odds ratios showed that there is at least one and a half times up to three times greater risk of depression in patients with psoriasis. Severity of psoriasis appears not to be clearly correlated with greater risk of depression.

LIMITATIONS: The results are limited due to the variation among the studies reviewed with regard to study design, including patient population, sample size, psoriasis severity, and instruments used to measure depression.

CONCLUSION: Although there seems to be a higher risk of depression in patients with psoriasis compared to non-psoriatic individuals, the estimated prevalence of the comorbidity varies greatly and does not necessarily correlate with severity. Dermatologists should recognize and evaluate for depression in psoriasis patients and consider appropriately aggressive treatment regimens to improve their health and quality of life.

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DISCLOSURES: C Jeon, S Sekhon, and M Nakamura have nothing to disclose. J Koo is a board member and consultant for AbbVie, Amgen, AstraZeneca, Celgene, Eli Lilly, Janssen, LEO, Merck/Sun, Novartis, Pfizer, and Promius.

PA-33: Safety and efficacy of onabotulinumtoxinA for the treatment of crow's feet lines in Chinese subjects

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BACKGROUND: This study evaluated the safety and efficacy of onabotulinumtoxinA for moderate to severe lateral canthal lines or crow's feet lines (CFL) in Chinese subjects.

METHODS: This 5-month, multicenter, double-blind, randomized, placebo-controlled study was conducted in China. Subjects with moderate to severe CFL at maximum smile were randomized to a single treatment cycle of onabotulinumtoxinA 24 U (total) or placebo (6 injections, 3 in each CFL area). Primary efficacy measure was investigator-assessed CFL severity at maximum smile (day 30) using the Facial Wrinkle Scale with Asian Photonumeric Guide.

RESULTS: Of 417 subjects who received treatment (onabotulinumtoxinA, n = 316; placebo, n = 101), 98.3% completed the study. Mean [range] age was 46.4 [23–74] years; 86.3% were female. The primary endpoint was met: the proportion of subjects achieving none or mild CFL severity at maximum smile (responders) at day 30 was significantly ($P < .001$) greater with onabotulinumtoxinA (63.9%) vs placebo (5.0%). At all other time points, the responder rate was significantly ($P < .001$) greater with onabotulinumtoxinA (day 60, 63.9%; day 90, 59.5%; day 120, 48.7%; day 150, 30.7%) vs placebo (≤5% at all time points). At day 30, subject-perceived age was, on average, 2.7 years younger than baseline in the onabotulinumtoxinA group vs 0.5 years younger in the placebo group ($P < .001$). Median duration of effect with onabotulinumtoxinA was ≥5 months using all responder definitions. There was a low occurrence of treatment-related adverse events.

CONCLUSION: Treatment with onabotulinumtoxinA 24 U was effective in reducing CFL severity in Chinese subjects, with responses maintained over 5 months. OnabotulinumtoxinA was safe and well tolerated, with no new safety findings.

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DISCLOSURES: Y Wu, W Gang, and L Chengxin have no conflicts to disclose. C Mao, X Lei, and E Lee are employees of Allergan plc.

PA-34: Safety and tolerability of apremilast for ≥156 weeks: pooled analysis from phase 3 clinical trials

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BACKGROUND: Apremilast, an oral phosphodiesterase 4 inhibitor, has been shown to be efficacious in the treatment of moderate to severe plaque psoriasis in randomized, placebo-controlled phase 3 trials (ESTEEM 1 and 2).
OBJECTIVE: To evaluate the long-term safety and tolerability of apremilast 30 mg BID (APR) for ≥156 weeks in patients with psoriasis.
METHODS: Safety findings are reported for 0 to ≥156 weeks from ESTEEM 1 and 2.
RESULTS: In the pooled ESTEEM 1 and 2 analysis, the 0 to ≥156 week apremilast-exposure period included 1,184 patients treated with APR (1,902.2 patient-years). During the 0 to ≤52 week APR-exposure period, adverse events (AEs) occurring in ≥5% of patients included diarrhea, nausea, upper respiratory tract infection, nasopharyngitis, headache, and tension headache. Most cases of diarrhea and nausea were mild to moderate in severity, occurred during the first week of dosing, and generally resolved within 1 month. Based on exposure-adjusted incidence rates (EAIR)/100 patient-years, no new AEs (≥5%) were reported. AEs, serious AEs, and discontinuation of study drug due to AEs did not increase with long-term exposure compared with the 0 to ≤52 week APR-exposure period. During 0 to ≥156 weeks, EAIR/100 patient-years for serious AEs was 5.9 (EAIR 0 to ≤52 weeks: 6.4) and for discontinuation due to AEs was 7.0 (EAIR 0 to ≤52 weeks: 10.2). During 0 to ≥156 weeks, no increases in rates of major cardiac events (EAIR 0.5), malignancies (EAIR 1.2), depression (EAIR 1.8), or suicide attempt (EAIR 0.1) occurred compared with the 0 to ≤52 week APR-exposure period. No serious opportunistic infection (EAIR 0.0), reactivation of tuberculosis infection, or clinically meaningful effects on laboratory measurements were reported. Mean (median) percent change from baseline in body weight was –1.53% (–1.20%); weight loss >5% was experienced by 21.9% of patients. Pooled safety analyses from the ESTEEM trials were consistent with those from the pooled PALACE 1-3 trials over the same APR-exposure periods, even in a patient population receiving concomitant disease-modifying anti-rheumatic drugs (including methotrexate).
LIMITATIONS: This study had a high dropout rate (21% of patients ongoing >156 weeks), not due to safety concerns.
CONCLUSION: APR demonstrated an acceptable safety profile and was generally well tolerated for ≥156 weeks, with no new signals or increases in the severity or frequency of AEs with long-term APR treatment.
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DISCLOSURES: KA Papp has received honoraria and research grants as a consultant, an investigator, a speaker, an advisory board member, or scientific officer for Abbott, AbbVie, Amgen, Astellas, Basilea, Biogen Idec, Celgene Corporation, Centocor/Janssen Biotech, Eli Lilly, Galderma, Genentech, GlaxoSmith-Kline, Janssen, Johnson & Johnson, LEO Pharma, MSD, Merck-Serono, Novartis, Pfizer, UCB, and Wyeth/Pfizer. JM Sobell has received honoraria as a consultant, and/or advisory board member, and/or acted as a paid speaker, and/or participated in clinical trials sponsored by AbbVie, Amgen, Celgene Corporation, Eli Lilly, Janssen Biotech, Merck, and Novartis. M Paris, RM Day, and R Chen are employees of Celgene Corporation. C Paul has received honoraria as a consultant for AbbVie, Amgen, Celgene Corporation, LEO Pharma, Eli Lilly, Novartis, and Pfizer.

PA-35: Safety profile of brodalumab in patients with moderate to severe plaque psoriasis: a 52-week evaluation of three phase 3 studies.

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BACKGROUND: Psoriasis is a chronic, immune-mediated disease characterized by thick, scaly plaques. The interkeukin-17 (IL-17) pathway plays an important role in the disease pathogenesis. Brodalumab, a fully human interleukin-17 receptor A (IL-17RA) monoclonal antibody, has demonstrated efficacy in phase 2 and phase 3 trials in patients with moderate to severe plaque psoriasis.
OBJECTIVE: To investigate the safety profile of brodalumab in patients with moderate to severe plaque psoriasis.
METHODS: Three multicenter, randomized, double-blind studies in moderate to severe psoriasis (N = 4632, safety population); two were ustekinumab-controlled. AMAGINE-1: Following a 12-week brodalumab or placebo induction phase subjects were rerandomized to brodalumab (210mg Q2W, 140mg Q2W) or placebo. AMAGINE-2 and -3: Following a 12-week brodalumab, ustekinumab or placebo induction phase subjects were rerandomized to brodalumab (210mg Q2W, 140mg Q2W, 140mg Q4W, 140mg Q8W) or remained on ustekinumab for a further 40 weeks. Adverse events (AEs) were monitored and evaluated throughout, with a particular focus on potential risks and AEs of interest given brodalumab's mechanism of action (MOA).

RESULTS: The AE profile for weeks 12-52 was similar to the induction phase, with no apparent brodalumab dose effect; nasopharyngitis, upper respiratory tract infection, arthralgia, and headache being the most common. Exposure-adjusted AE and SAE rates (per 100 patient years) were comparable for brodalumab and ustekinumab (401.3; 8.3 and 394.6; 8.5) Follow-up adjusted rates of fatal events were 0.4 for both treatments. Rates of AEs of special interest were very low, serious infections with brodalumab and ustekinumab were 1.3 and 1.0 respectively. Fungal infections were more frequent for brodalumab than ustekinumab (7.5 vs 4.2) and were primarily composed of superficial skin or mucocutaneous candidiasis. Rates for neutropenia were 2.3 and 2.4 respectively, transient in nature, and not temporally associated with serious infections. Suicidal ideation and behavior (SIB) events were observed with both brodalumab and ustekinumab (0.2 and 0.6 respectively), with one completed and one indeterminate suicides with brodalumab. The rates of cardiovascular AEs with both brodalumab and ustekinumab were equivalent. The exposure-adjusted rates for adjudicated Major Adverse Cardiovascular Events (MACE) with brodalumab and ustekinumab were 0.6 and 0.4 respectively, showed no temporal association or evidence of brodalumab dose response, and were comparable to that reported in other trials.
CONCLUSION: Brodalumab has an acceptable safety profile comparable to that of ustekinumab through 52 weeks of treatment. SIB remains an important potential risk in any psoriasis patient population; the data from these studies does not support a causal association with brodalumab.
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DISCLOSURES: KA Papp has served as a consultant, scientific officer, member of a speaker's bureau, advisory board or steering committee, or received research grants or honoraria from AbbVie, Inc, Akesis Pharmaceuticals, Inc, Akros, Inc, Allergan, Plc, Alza Corporation, Amgen Inc, Anacor Pharmaceuticals, Artax Biopharma, Inc,, Astellas Pharma, Inc, AstraZeneca, Baxter, Baxalta, Boehringer Ingelheim, Bristol-Myers Squibb, Can-Fite BioPharma, Celgene Corporation, Celtic Pharma, Cipher Pharmaceuticals, Inc, Dermira, Inc, Dow Pharma, Eli Lilly & Co, Ferring Pharmaceuticals, Inc, Formycon AG, Forward Pharma A/S, Fujisawa Pharmaceuticals Co, Inc, Fuxional Therapeutics, Ltd, Galderma SA, Genentech, Inc, Genexion SA, Genzyme Corporation, Gilead Sciences, GlaxoSmithKline, Plc, Janssen Pharmaceutica, Kyowa Hakko Kirin Co, Ltd, LEO Pharma, MedImmune, Inc, Meiji Seika Pharma Co, Merck & Co, Inc (MSD), Merck Serono, Mitsubishi Tanabe Pharma, Mylan, Novartis AG, NovImmune SA, Pan-Genetics Pharmaceutical Corporation, Pfizer, Inc Regeneron Pharmaceuticals, Inc Roche, Sanofi-Aventis US LLC, Stiefel Laboratories, Takeda Pharmaceuticals, Inc, UCB, Inc, Valeant Pharmaceuticals North America LLC, and Vertex Pharmaceuticals, Inc. LJ Green is an investigator, consultant, and or speaker for Amgen, Abbvie, Celgene, Janssen, Merck, Novartis, and Valeant. PS Yamauchi is a consultant/speaker for AbbVie, consultant/speaker/principal investigator/advisor for Amgen, consultant/speaker/principal investigator for Celgene, principal investigator/advisor for Dermira, speaker/principal investigator for Galderma, consultant/speaker/principal investigator for Janssen-Ortho, speaker/principal investigator for Leo Pharma, principal investigator/advisor for Lilly ICOS, principal investigator for Medimmune, consultant/speaker/principal investigator for Novartis, consultant/ principal investigator for Pfizer, consultant/ principal investigator for Regeneron. WJ Jashin received research funding from AbbVie, Amgen, AstraZeneca, Boehringer Ingelheim, Coherus Biosciences, Dermira, Eli Lilly, Janssen, Merck, Novartis, Pfizer, Regeneron, Sandoz, and Sun Pharmaceutical Industries; he is a consultant for AbbVie, Amgen, Celgene, Dermira, Eli Lilly, Pfizer, Regeneron, Sun Pharmaceutical Industries, and Valeant Pharmaceuticals. S Rastogi, R Israel, and R Pillai are employees of Valeant Pharmaceuticals.

PA-36: Safety, tolerability, and efficacy of tazarotene gel 0.1% versus tazarotene cream 0.1% in patients with moderate to severe acne vulgaris

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BACKGROUND: There are no published head to head comparisons of tazarotene gel (TG) and tazarotene cream (TC) in acne patients.
METHODS: A multicenter study evaluated the safety (treatment-emergent adverse events [TEAEs], tolerability, cumulative irritancy index [CII]) and efficacy (lesion counts) of 2 tazarotene liquid gel (TLG) (0.04% and 0.1%) vs TG 0.1% and TC 0.1%. Patients were randomized 1:1:1:1 to receive TLG 0.04%, TLG 0.1%, TG or TC applied under maximal-use conditions daily for 29 days. As no differentiating features were observed for TLG, only TG and TC are reported.
RESULTS: Forty patients receive TG (n = 22) or TC (n = 18). Incidences of TEAEs were similar (gel: 13.6%; cream: 16.7%). Most TEAEs were mild or moderate, with no serious TEAEs. Treatment-related TEAEs in 2 patients included application site irritation (TG) and sunburn (TC). In both groups, the median CII was 0.5, and most facial tolerability on day 29 were "none" (dryness, scaling, stinging/burning) or "mild" (erythema). On day 29, TG resulted in greater mean percent reductions from baseline vs TC in inflammatory (–35.9 vs –21.2), comedonal (–41.1 vs –33.0), and total lesions (–39.6 vs –29.7).
CONCLUSION: Treatment with TG or TC showed similar safety and tolerability, with TG trending toward greater lesion count reductions.
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DISCLOSURES: JE Chang-Lin, DR Berk, and A Kaoukhov are employees of Allergan plc.

PA-37: Seborrheic keratosis in dermatology practices in the United States: results of a prospective, multicenter, observational study

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BACKGROUND: Seborrheic keratosis (SK) is one of the most common skin conditions diagnosed by dermatologists. Though SK is often associated with aging, some patients may have lesions as early as age 30. Patients may report that one or more of the lesions have become symptomatic (irritated, bleeding, or pruritic). More often, patients presenting with SK have concerns that the lesions might be skin cancer or consider them to be cosmetically unacceptable. No studies have evaluated the burden of asymptomatic SK lesions on patients and the motivation to receive treatment.
OBJECTIVE: To characterize SK in patients who visit private dermatology practices, evaluate the burden of asymptomatic SK lesions for middle-aged patients, and evaluate these patients' interest in removing asymptomatic SK lesions.
METHODS: This prospective observational study was conducted at 10 regionally diverse community dermatology practices in the United States. Subjects were adults who were visiting the dermatologist for any reason and who had an SK lesion. Dermatologists treated patients for their primary complaint and informed the patients about the SK diagnosis. Patients aged 40 to 69 years with only asymptomatic SKs were invited to complete a questionnaire in the office.
RESULTS: Of the patients who presented with SK, 81% had only asymptomatic lesions. Among 406 patients aged 40 to 69 with asymptomatic SK (62% women, mean age 58.1 years) who completed the questionnaire, dermatologists observed a mean (standard deviation) of 26.2 (27.6) SK lesions. Most lesions were on the trunk, followed by the arms, face, and neck/neckline. Men had a greater mean number of SK lesions than women, (30.9 vs 23.3 lesions). The mean number of lesions increased with patient age (ages 40 to 49 years: 15.0 lesions, ages 50 to 59 years: 22.7 lesions, and ages 60 to 69 years: 32.6 lesions). Results of the patient survey indicated that most patients, particularly women, reported taking actions to hide or disguise their SK lesions. Thirty-one percent of patients reported picking at SK lesions to make them fall off. Thirty-four percent of patients had previously asked their dermatologists about treatment for SKs. The motivation for asking about treatment was equally distributed between concerns about health and concerns about appearance, with most patients citing both. Eighty-six percent of patients were either somewhat or extremely interested in treatment provided in a dermatologist's office for a reasonable fee paid by the patient. Factors that were correlated with higher interest in treatment were the presence of lesions on the face or neck and female gender.
LIMITATIONS: Patients >70 years old were not included in the patient survey. In addition, the study population consisted only of patients who presented to dermatology offices and may not be reflective of the overall population of patients with seborrheic keratosis.
CONCLUSION: Asymptomatic SK lesions were common among patients younger than 70 years old. Patients found asymptomatic SK lesions bothersome enough to make attempts to hide or disguise them and ask about treatment. Patients with SK were interested in treatment even if they would have to pay for it.
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DISCLOSURES: J Del Rosso has received consulting fees from Aclaris.

PA-38: Secukinumab 300 mg is more efficacious than ustekinumab 90 mg: analysis of the CLEAR study

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BACKGROUND: Obesity is a frequent comorbidity in patients with psoriasis. In the CLEAR study, secukinumab, a fully human monoclonal antibody targeting IL-17A, demonstrated superior PASI90, PASI75, PASI100 and IGA mod 2011 responses at 16 weeks (Wk) when compared to ustekinumab.
OBJECTIVE: Here we present an analysis of these responses in the subgroup of patients with a body weight >100 kg.
METHODS: Randomized, double-blind, 52-Wk clinical trial which compared secukinumab 300mg with ustekinumab 45 or 90 mg (45 mg in patients ≤100 kg and 90 mg in patients >100 kg) in 676 patients with moderate to severe plaque psoriasis. The randomization was stratified by body weight (≤100 or >100 kg). The response variables PASI90 (primary endpoint), PASI75, PASI100, and IGA mod2011 (IGA) were analyzed in the first 16Wk of the study in the >100 kg subgroup. The missing values were assigned as "no responders" for all patients, including this pre-planned per protocol analysis.
RESULTS: In all patients at Wk 16, PASI90, PASI75, PASI100, and IGA 0/1 responses were achieved by 79.0%, 93.1%, 44.3%, and 82.9% of patients receiving secukinumab 300 mg, respectively, and by 57.6%, 82.7%, 28.4%, and 67.5% of patients receiving ustekinumab 45 or 90 mg, respectively. Overall, secukinumab 300 mg was superior to ustekinumab 45 or 90 mg in PASI90 response at Wk16 ($P < .0001$), and that response was 37.1% higher for secukinumab. Secukinumab also showed a statistically significant higher response for all response variables at Wk4 ($P < .0001$ for PASI90, PASI75, and IGA; $P = .014$ for PASI100). In this analysis in patients with a body weight >100 kg at Baseline (n = 78 for secukinumab and n = 83 for ustekinumab), PASI90, PASI75, PASI100, and IGA responses at Wk16 were 64.1%, 84.6%, 30.8%, and 73.1% with secukinumab and 48.2%, 80.7%, 14.5%, and 60.2% with ustekinumab 90 mg, respectively. In this subgroup, secukinumab 300 mg demonstrated a significantly higher PASI90 response at Wk16 compared with ustekinumab 90 mg ($P = .042$). Secukinumab also demonstrated a statistically significant higher PASI75 and IGA response at Wk4 ($P = .021$ and $P = .003$) and PASI100 at Wk16 ($P = .013$). PASI90 response at Wk16 was 33.0% higher with secukinumab.
CONCLUSION: Secukinumab 300 mg demonstrated a clinically and statistically significant higher efficacy (PASI90 at Wk16) than ustekinumab 90 mg in patients with a body weight

over 100 kg. Secukinumab 300 mg is more efficacious than ustekinumab 90 mg.

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DISCLOSURES: PH Pinto: received honoraria as a consultant, investigator, speaker or advisory board member from Abbvie, Janssen, MSD, Novartis, Pfizer, Sanofi Pasteur and Roche. R Rivera: advisory boards/speaker/clinical trials for Abbvie, Celgene, Janssen, Leo-Pharma, Lilly, MSD, Novartis, and Pfizer. A Blauvelt: served as a scientific consultant and clinical study investigator for AbbVie, Amgen, AstraZeneca, Boehringer Ingelheim, Celgene, Dermira, Genentech, GSK, Janssen, Lilly, MedImmune, Merck, Novartis, Pfizer, Regeneron, Sandoz, Sanofi, UCB, and Valeant, and as a paid speaker for Lilly. D Thaçi: received honoraria as investigator from Abbvie, Almiral, Amgen, Astellas, Biogen-Idec, Boehringer-Ingelheim, Celgene, Dignity, Elli-Lilly, Forward-Pharma, GlaxoSmithKline, Leo, Janssen-Cilag, Maruho, MSD, Mitsubishi Pharma, Novartis, Pfizer, Roche, Sandoz; received honoraria as a consultant from Abbvie, Biogen-Idec, Celgene, Dignity, Maruho, Mitsubishi, Novartis, Pfizer, Xenoport; received honoraria as a scientific advisory board member from AbbVie, Amgen, Biogen-Idec, Celgene, Eli-Lilly, GSK, Pfizer, Novartis, Janssen, Mundipharma, and Sandoz. JO Vigueras: employee of Novartis.

FUNDING/SUPPORT: This research was sponsored by Novartis Pharma AG, Basel, Switzerland.

PREVIOUS PRESENTATION: These results were originally presented at the 25th Annual Congress of the European Academy of Dermatology and Venereology, Vienna, Austria; September 28–October 2, 2016.

PA-39: Secukinumab demonstrates sustained high efficacy and a favorable safety profile in moderate to severe psoriasis patients through 4 years of treatment (extension of the SCULPTURE study)

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BACKGROUND: Secukinumab, a fully human monoclonal antibody that selectively neutralizes IL-17A, has been shown to have significant efficacy in the treatment of moderate to severe psoriasis and psoriatic arthritis, demonstrating a rapid onset of action and sustained responses, with a favorable safety profile.

OBJECTIVE: This secukinumab analysis is the first phase 3 study of an IL-17A inhibitor evaluating efficacy and safety up to 4 years of treatment at the approved dose.

METHODS: In the core SCULPTURE study, Psoriasis Area and Severity Index (PASI) 75 responders at Week 12 were randomized to a double-blind maintenance treatment of subcutaneous secukinumab 300 mg or 150 mg, administered either at a 4-week fixed-interval (FI) or in a retreatment-as-needed regimen. Patients who completed 52 weeks of treatment continued into the extension and received the same blinded maintenance treatment regimen and dose up to end of Year 3. In the fourth year, the study was open label and the treatment was mainly self-injected by patients at home; patients attended site visits every 12–16 weeks. In this analysis we report PASI 90/100 responses, absolute PASI ≤1/≤2/≤3 responses, dermatology life quality index (DLQI) 0/1 response, and safety/tolerability over four years focusing on the 300-mg FI treatment arm. Efficacy data are reported as observed. Safety was analyzed per year.

RESULTS: Secukinumab 300 mg demonstrated sustained efficacy over four years of treatment in patients (Baseline [n = 168], Year 1 [n = 165], and Year 4 [n = 131]) with moderate to severe psoriasis (mean Baseline PASI 23.5 ± 8.8, mean Baseline BSA 33.1% ± 18.9). Approximately two-thirds of patients had clear or almost clear skin (PASI 90) at Year 1 (68.5%), a response which was sustained to Year 4 (66.4%). Clear skin (PASI 100) at Year 1 (43.8%) was also sustained to Year 4 (43.5%). The median percentage change in PASI from Baseline to Year 1 (98.4%) was maintained to Year 4 (97.8%). PASI ≤1/≤2/≤3 responses at Year 1 were 58.6%, 67.9%, and 74.1%, respectively, and were 58.8%, 71%, and 77.1%, respectively, at Year 4. DLQI 0/1 response (representing no impact of skin problems on patients' lives) was sustained over four years (72.7% at Year 1 and 70.8% at Year 4). The safety profile of secukinumab remained favorable year-on-year up to four years, with no cumulative or unexpected safety concerns identified. The most common adverse events were nasopharyngitis and upper respiratory tract infection, similar to the pivotal 1-year clinical studies.

CONCLUSION: Secukinumab 300 mg delivered high and sustained levels of skin clearance up to four years in patients with moderate to severe psoriasis. Secukinumab also led to high and sustained relief from the burden of psoriasis on patients' lives (DLQI 0/1). Favorable safety established in a large phase 3 program was maintained up to four years, with no increase of adverse events year-on-year and no new or unexpected safety signals observed.

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DISCLOSURES: R Bissonnette: served as a consultant, investigator, or speaker for, or received grants from, AbbVie, Amgen, Apopharma, Astellas, Boehringer Ingelheim, Celgene, Dermira, Eli-Lilly, Galderma, GSK-Stiefel, Incyte, Jansen, Leo, Novartis, Pharma, Merck, Pfizer, and Tribute. T Luger: received honoraria as an advisory board member from AbbVie, Amgen, CERIES, Celgene, Clinuvel, La Roche Posay, Janssen-Cilag, Pfizer, MEDA Pharma, Galderma, Symrise, Sandoz, Mundipharma, Lilly; grants as an investigator from Biogen Idec, Janssen-Cilag, MEDA Pharma, Pfizer, Wolff; honoraria as a speaker/con-

sultant from Novartis, AbbVie, Astellas, Galderma, La Roche Posay, MEDA Pharma, Janssen-Cilag; and honoraria as a clinical trial investigator from Novartis, Lilly, Pfizer, and Janssen-Cilag. D Thaçi: received honoraria as investigator from Abbvie, Almiral, Amgen, Astellas, Biogen-Idec, Boehringer-Ingelheim, Celgene, Dignity, Elli-Lilly, Forward-Pharma, GlaxoSmithKline, Leo, Janssen-Cilag, Maruho, MSD, Mitsubishi Pharma, Novartis, Pfizer, Roche, Sandoz; received honoraria as a consultant from Abbvie, Biogen-Idec, Celgene, Dignity, Maruho, Mitsubishi, Novartis, Pfizer, Xenoport; received honoraria as a scientific advisory board member from AbbVie, Amgen, Biogen-Idec, Celgene, Eli-Lilly, GSK, Pfizer, Novartis, Janssen, Mundipharma, and Sandoz. D Toth: received honoraria as an advisory board member, investigator and/or speaker from AbbVie, Amgen Inc, Celgene, Eli Lilly and Company, Galderma, Genentech, Janssen, LEO, Novartis, Pharma, Merck, Pfizer and Regeneron. K Letzelter, S Xia, R Mazur, and M Milutinovic: employees of Novartis. C Leonardi: served as a consultant and/or investigator and/or participated in a speakers' bureau for AbbVie, Amgen, Celgene, Dermira, Eli Lilly, Galderma, Janssen, Leo Pharma, Merck, Novartis, Pfizer, Sandoz, Stiefel, and UCB.

FUNDING/SUPPORT: This research was sponsored by Novartis Pharma AG, Basel, Switzerland.

PREVIOUS PRESENTATION: These results were originally presented at the 25th Annual Congress of the European Academy of Dermatology and Venereology, Vienna, Austria; September 28–October 2, 2016.

PA-40: Secukinumab improves signs and symptoms of psoriatic arthritis: 52-week results of phase 3 FUTURE 2 study stratified by concomitant methotrexate use

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BACKGROUND: Concomitant use of methotrexate (MTX) with biologics is common in patients (pts) with psoriatic arthritis (PsA). Secukinumab, a fully human anti–IL-17A monoclonal antibody, improved the signs and symptoms of PsA at Week (Wk) 24 in the FUTURE 2 study (NCT01752634) in both the concomitant MTX and without MTX sub-groups.[1]

OBJECTIVE: Here, we report the 52-wk results of this subgroup analysis.

METHODS: 397 pts with PsA were randomized to receive subcutaneous secukinumab 300, 150, or 75 mg or placebo (PBO) at baseline (BL), Wks 1, 2, 3 and 4 and every 4 wks thereafter. Concomitant MTX at a stable dose (≤25 mg/wk) was permitted. Primary endpoint was ACR20 response at Wk 24. Wk 52 analysies included ACR20/50, PASI75/90, HAQ-DI, SF-36 PCS, DAS28-CRP, and resolution of dactylitis and enthesitis. The analyses used non-responder imputation for binary variables and mixed-effect model repeated measure for continuous variables.

RESULTS: BL demographics and disease characteristics were similar across the groups, regardless of MTX status. Of the 397 pts, 47.9% (n = 190) received concomitant MTX with a mean dose range of 15.9–18.0 mg/wk. Improvements achieved in ACR20/50 at Wk 24 (secukinumab 300 mg with MTX [n = 45]: 53.3%/37.8%; and secukinumab 300 mg without MTX [n = 55]: 54.5%/32.7%; secukinumab 150 mg with MTX [n = 46]: 50.0%/34.8%; and secukinumab 150 mg without MTX [n = 54]: 51.9%/35.2%) were sustained through Wk 52 (secukinumab 300 mg with MTX: 60.0%/42.2%; and secukinumab 300 mg without MTX: 67.3%/45.5%; secukinumab 150 mg with MTX: 71.7%/41.3%; and secukinumab 150 mg without MTX: 57.4%/37.0%), regardless of concomitant MTX use. Additionally, improvements in PASI75/90 at Wk 24 (secukinumab 300 mg with MTX [n = 14]: 35.7%/28.6%; and secukinumab 300 mg without MTX [n = 27]: 77.8%/59.3%; secukinumab 150 mg with MTX [n = 22]: 59.1%/36.4%; and secukinumab 150 mg without MTX [n = 36]: 41.7%/30.6%) were sustained through Wk 52 (secukinumab 300 mg with MTX: 64.3%/35.7%; and secukinumab 300 mg without MTX: 77.8%/66.7%; secukinumab 150 mg with MTX: 63.6%/50.0%; and secukinumab 150 mg without MTX: 52.8%/38.9%), regardless of concomitant MTX use. Improvements observed vs PBO at Wk 24 in DAS28-CRP, HAQ-DI, SF-36 PCS and resolution of dactylitis and enthesitis were also sustained through 52 wks, regardless of concomitant MTX use.

CONCLUSION: Secukinumab 300 and 150 mg improved joint and skin symptoms, physical function, and quality of life in patients with PsA through 52 wks of therapy, in both the concomitant MTX and without MTX sub-groups.

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1. Gottlieb AB, et al. EADV; Copenhagen, Denmark; 7–11 October 2015. e-Poster P0339.

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DISCLOSURES: A Gottlieb: consultant/advisory board member for Amgen Inc, Astellas, Akros, Centocor (Janssen), Celgene Corp., Bristol Myers Squibb, Beiersdorf, Abbott Labs. (AbbVie), TEVA, Actelion, UCB, Novo Nordisk, Novartis, Dermipsor Ltd, Incyte, Pfizer, Canfite, Lilly, Coronado, Vertex, Karyopharm, CSL Behring Biotherapies for Life, Glaxo Smith Kline, Xenoport, Catabasis, Meiji Seika Pharma Co. Ltd, Takeda, Mitsubishi Tanabe Pharma Development America, Inc, Genentech, Baxalta; research/educational grants, paid to Tufts Medical Center, from the following: Centocor (Janssen), Amgen, Abbott (AbbVie), Novartis, Celgene, Pfizer, Lilly, Coronado, Levia, Merck, Xenoport, Dermira, Baxalta. IB McInnes: Research grants, consultation fees, or speaker honoraria from Abbvie, Amgen, BMS, Celgene, Janssen, Lilly, Novartis, Pfizer, and UCB. PJ Mease: Research grants, consultation fees, or speaker honoraria from AbbVie, Amgen, BMS, Celgene, Crescendo Bioscience, Genentech, Janssen, Lilly, Merck, Novartis, Pfizer, and UCB. V Bhosekar: Employee of Novartis. S Mpofu: Employee of Novartis, with Novartis stock.

FUNDING/SUPPORT: This research was sponsored by Novartis Pharma AG, Basel, Switzerland.

PREVIOUS PRESENTATION: These results were originally presented at the 25th Annual Congress of the European Academy of Dermatology and Venereology, Vienna, Austria; September 28–October 2, 2016.

PA-41: Secukinumab is effective in subjects with moderate to severe palmoplantar psoriasis: 1.5 year results from the GESTURE study

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BACKGROUND: Palmoplantar psoriasis occurs in up to 40% of plaque psoriasis patients, and is often associated with pain, functional limitations, severe impact on patients' quality of life and resistance to treatment. Secukinumab, a fully human monoclonal antibody that selectively neutralizes IL-17A, has been shown to have significant efficacy in the treatment of moderate to severe psoriasis and psoriatic arthritis, demonstrating a rapid onset of action and sustained responses with a favorable safety profile.
OBJECTIVE: Here we report 1.5 year (Week 80) efficacy and safety data from the GESTURE study in subjects with moderate to severe palmoplantar psoriasis treated with secukinumab.
METHODS: GESTURE is a double-blind, randomized, placebo-controlled, parallel-group multicenter phase 3b study. Subjects (N = 205) were randomized 1:1:1 to receive secukinumab 300 mg, secukinumab 150 mg, or placebo, subcutaneously. At Week 16, subjects in the placebo arm who did not achieve a palmoplantar Investigator's Global Assessment (ppIGA) score of 0/1 (0=clear, 1=almost clear/minimal psoriasis of palms and soles) and at least 2 points reduction on ppIGA from Baseline were re-randomized 1:1 to receive secukinumab 300 mg or 150 mg. The primary objective of GESTURE was to demonstrate superiority of secukinumab over placebo, as assessed by ppIGA 0/1 response at Week 16. Secondary objectives were the evaluation of ppIGA and palmoplantar Psoriasis Area and Severity Index (ppPASI) over time, and overall safety and tolerability of secukinumab.
RESULTS: The primary and secondary endpoints of this study were met. As previously reported, a third of subjects on secukinumab 300 mg, and one fifth of those on 150 mg achieved a ppIGA 0/1 response at Week 16 vs slightly over 1% for placebo ($P < .0001$ and $P = .0002$, respectively vs placebo). ppIGA 0/1 responses were sustained and continued to improve out to Week 80: 57.2% and 34.9% in subjects treated with secukinumab 300 mg and 150 mg, respectively. Mean ppPASI reduction from Baseline improved after Week 16 and reached –68.5% and –52.5% to Week 80 for secukinumab 300 mg and 150 mg, respectively. The most common adverse events across all treatment arms were nasopharyngitis, upper respiratory tract infection and headache, similar to other pivotal secukinumab phase 3 studies.
CONCLUSION: GESTURE is the largest and longest duration randomized controlled trial to date in the difficult to treat palmoplantar psoriasis population. Results from GESTURE show that secukinumab displays significant efficacy in difficult to treat palmoplantar psoriasis with 6/10 subjects having clear/almost clear palms and soles after at 1.5 years. The safety profile was favorable and in line with the safety profile established in the large phase 3 program.
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DISCLOSURES: A Gottlieb: consultant/advisory board member for Amgen Inc, Astellas, Akros, Centocor (Janssen), Celgene Corp, Bristol Myers Squibb, Beiersdorf, Abbott Labs (AbbVie), TEVA, Actelion, UCB, Novo Nordisk, Novartis, Dermipsor Ltd, Incyte, Pfizer, Canfite, Lilly, Coronado, Vertex, Karyopharm, CSL Behring Biotherapies for Life, Glaxo Smith Kline, Xenoport, Catabasis, Meiji Seika Pharma Co. Ltd, Takeda, Mitsubishi Tanabe Pharma Development America, Inc, Genentech, Baxalta; research/educational grants, paid to Tufts Medical Center, from the following: Centocor (Janssen), Amgen, Abbott (AbbVie), Novartis, Celgene, Pfizer, Lilly, Coronado, Levia, Merck, Xenoport, Dermira, Baxalta. J Sullivan: received educational grants from Novartis, Abbvie and Pfizer; received consultancy fees from Novartis, Abbvie, Pfizer and Eli Lilly. A Kubanov: no conflict of interest to declare. A Tao, P Regnault, T Fox, M Milutinovic, and J Frueh: employees of Novartis.
FUNDING/SUPPORT: This research was sponsored by Novartis Pharma AG, Basel, Switzerland.
PREVIOUS PRESENTATION: These results were originally presented at the 25th Annual Congress of the European Academy of Dermatology and Venereology, Vienna, Austria; September 28–October 2, 2016.

PA-42: Secukinumab provides rapid and sustained reductions in dactylitis, enthesitis, and nail psoriasis in patients with psoriatic arthritis: 52-week results of the FUTURE 2 study

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BACKGROUND: Secukinumab, a fully human anti–IL-17A monoclonal antibody, has demonstrated significant and sus-

tained efficacy in psoriasis and psoriatic arthritis (PsA). Dactylitis, enthesitis, and nail psoriasis are common manifestations of PsA.[1]

OBJECTIVE: We report the effects of secukinumab on dactylitis, enthesitis, and nail psoriasis through Week (Wk) 52 in the phase 3 FUTURE 2 study (NCT01752634).[2]

METHODS: The proportions of patients (pts) with resolution of dactylitis and enthesitis at Wks 24 and 52 were secondary and exploratory endpoints, respectively; additional measures were dactylitic digit and enthesitis site counts. Change from baseline (BL) in total fingernail modified NAil Psoriasis Severity Index (mNAPSI) score was an exploratory endpoint assessed in pts with nail involvement. Post-hoc analyses included Kaplan Meier (KM) analysis of time to achieve resolution of enthesitis and dactylitis and proportion of pts with resolution of dactylitis and enthesitis by BL severity.

RESULTS: Of the 397 pts randomized, 138 (35%), 253 (64%), and 279 (70.3%) had dactylitis, enthesitis, and nail psoriasis, respectively, at BL. KM curves indicated that median time to resolution of dactylitis and enthesitis with secukinumab 300 and 150 mg was Wk 4. At Wk 24, a greater proportion of secukinumab-treated pts achieved complete resolution of dactylitis and enthesitis vs Placebo (PBO; $P < .05$). A sustained decrease in mean changes in dactylitis counts from BL (secukinumab 300 mg: 3.6; secukinumab 150 mg: 4.4) with secukinumab was observed to Wk 24 (secukinumab 300 mg: –2.56 [$P < .05$]; secukinumab 150 mg: –2.53) and Wk 52 (secukinumab 300 mg: –3.08; secukinumab 150 mg: –3.11). Additionally, a sustained decrease in mean changes in enthesitis counts from BL (secukinumab 300 mg: 2.82; secukinumab 150 mg: 3.19) with secukinumab was observed to Wk 24 (secukinumab 300 mg: –1.68; secukinumab 150 mg: –1.83 [$P < .05$]) and Wk 52 (secukinumab 300 mg: –1.68; secukinumab 150 mg: –1.91), with significant improvements in enthesitis counts vs PBO observed by Wk 4 ($P < .05$). Mean change in mNAPSI scores from BL (secukinumab 300 mg: 15.5; secukinumab 150 mg: 18.6) observed with secukinumab at Wk 24 (secukinumab 300 mg: –10.30 [$P < .01$]; secukinumab 150 mg –10.39 [$P < .01$]) were sustained or improved through Wk 52 (secukinumab 300 mg: –11.4; secukinumab 150 mg –13.8).

CONCLUSION: Secukinumab provided rapid improvements in dactylitis, enthesitis, and nail psoriasis with improvements sustained through Wk 52.

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DISCLOSURES: IB McInnes: Research grants, consultation fees, or speaker honoraria from Abbvie, Amgen, BMS, Celgene, Janssen, Lilly, Novartis, Pfizer, and UCB. B Kirkham: Research grants, consultation fees, or speaker honoraria from AbbVie, BMS, Celgene, Janssen, Lilly, MSD, Novartis, Roche, and UCB. P Mease: Research grants, consultation fees, or speaker honoraria from AbbVie, Amgen, BMS, Celgene, Crescendo Bioscience, Genentech, Janssen, Lilly, Merck, Novartis, Pfizer, and UCB. V Bhosekar and K Gandhi: Employees of Novartis. S Mpofu and C Gaillez: Employees of Novartis, with Novartis stocks.

FUNDING/SUPPORT: This research was sponsored by Novartis Pharma AG, Basel, Switzerland.

PREVIOUS PRESENTATION: These results were originally presented at the 25th Annual Congress of the European Academy of Dermatology and Venereology, Vienna, Austria; September 28–October 2, 2016.

PA-43: Secukinumab shows significant efficacy in nail psoriasis: week 32 results from the TRANSFIGURE study

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BACKGROUND: Nail psoriasis is associated with decreased finger mobility, functional impairment, pain and reduced quality of life and is often resistant to available therapies. It correlates with more severe psoriatic disease and is an important predictor of psoriatic arthritis. Lifetime incidence of nail psoriasis is as high as 90%. Secukinumab, a fully human monoclonal antibody that selectively targets IL-17A, is highly efficacious in the treatment of moderate to severe psoriasis, starting at early time points, with a sustained effect and a favorable safety profile.

OBJECTIVE: We assessed superiority of secukinumab 300 mg and/or 150 mg vs placebo in treating subjects with moderate to severe psoriasis and significant nail involvement, as assessed by NAil Psoriasis Severity Index (NAPSI) at Week 16 and Week 32 and Psoriasis Area and Severity Index (PASI) change over time. Impact on quality of life was assessed by Nail Assessment in Psoriasis and Psoriatic Arthritis (NAPPA) Patient

Benefit Index (-PBI) and Quality of Life (-QOL) at Week 16.
METHODS: TRANSFIGURE is a double-blind, randomized, placebo-controlled, parallel-group multicenter phase 3b study. Subjects (N = 198) were randomized 1:1:1 to receive either secukinumab 300 mg, secukinumab 150 mg, or placebo, subcutaneously up to Week 128. At Week 16, all subjects receiving placebo were re-randomized 1:1 to receive 300 mg or 150 mg secukinumab.
RESULTS: The primary objective of this study was met. Both doses of secukinumab were superior to placebo at Week 16 with a mean NAPSI improvement from Baseline of –45.3%, –37.9%, and –10.8%, for secukinumab 300 mg, 150 mg, and placebo, respectively ($P < .0001$). Responses improved further by Week 32 with a NAPSI change of –63.2% and –52.6% for secukinumab 300 mg and 150 mg, respectively. At Week 32, PASI 90 responses were achieved in 72.1% and 61.4% of subjects, and PASI 100 responses in 36.9% and 28.1% for secukinumab 300 mg and 150 mg, respectively. At Week 16, subjects on secukinumab showed significant improvements in NAPPA-QOL with a median decrease in total score of 60.9%, 49.9%, and 15.8% for secukinumab 300 mg, 150 mg, and placebo, respectively. The percentage of subjects achieving a weighted NAPPA-PBI global score of 2 and above (ie, at least moderate benefits) was 75.4%, 61.3%, and 8.6% for secukinumab 300 mg, 150 mg, and placebo, respectively. The most common adverse events were nasopharyngitis, headache, and upper respiratory tract infections, similar to previous studies.
CONCLUSION: In the prospective, placebo-controlled TRANSFIGURE trial, secukinumab demonstrated significant and clinically meaningful efficacy, quality of life improvement, and patient-reported benefit in nail psoriasis.
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DISCLOSURES: K Reich: served as a consultant and/or paid speaker for, and/or participated in clinical trials sponsored by AbbVie, Amgen, Biogen-Idec, Celgene, Centocor, Covagen, Eli Lilly, Forward Pharma, GlaxoSmithKline, Janssen-Cilag, Leo Pharma, Medac, MSD, Novartis, Pfizer, Vertex, Takeda, and Xenoport. J Sullivan: received educational grants from Novartis, Abbvie and Pfizer; received consultancy fees from Novartis, Abbvie, Pfizer and Eli Lilly. P Arenberger: received grants from Novartis. U Mrowietz: received grants and/or participated in clinical trials for Abbott/AbbVie, Almirall, Amgen, BASF, Biogen Idec, Celgene, Centocor, Eli Lilly, Forward Pharma, Galderma, Janssen, Leo Pharma, Medac, MSD, Miltenyi Biotech, Novartis, Pfizer, Teva, VBL, and Xenoport; served as advisor and/or received speaker honoraria and/or received grants for Abbott/AbbVie, Almirall, Amgen, BASF, Biogen Idec, Celgene, Centocor, Eli Lilly, Forward Pharma, Galderma, Janssen, Leo Pharma, Medac, MSD, Miltenyi Biotech, Novartis, Pfizer, Teva, VBL, and Xenoport. S Jazayeri: participated in clinical trials sponsored by Boehringer, Lilly, and Novartis, and is a speaker for Novartis. M Augustin: received grants and/or participated in clinical trials for Abbvie, Almirall, Amgen, Biogen Idec, Boehringer Ingelheim, Celgene, Centocor, Eli Lilly, Janssen-Cilag, Leo, Medac, MSD (formerly Essex, Schering-Plough), Mundipharma, Novartis, Pfizer (formerly Wyeth), Pohl Boskamp, Sandoz, and Xenoport; served as advisor and/or received speaker honoraria from Abbvie, Almirall, Amgen, Biogen Idec, Boehringer Ingelheim, Celgene, Centocor, Eli Lilly, Janssen-Cilag, Leo, Medac, MSD (formerly Essex, Schering-Plough), Mundipharma, Novartis, Pfizer (formerly Wyeth), Pohl Boskamp, Sandoz, Xenoport. A Parneix, P Regnault, R You, and M Milutinovic: employees of Novartis.
FUNDING/SUPPORT: This research was sponsored by Novartis Pharma AG, Basel, Switzerland.
PREVIOUS PRESENTATION: These results were originally presented at the 17th Annual Congress of the European League Against Rheumatism, London, UK, June 8–11, 2016.

PA-44: Secukinumab treatment provides faster and more effective relief from patient-reported quality of life impact than ustekinumab in subjects with moderate to severe plaque psoriasis

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BACKGROUND: Secukinumab, a fully human monoclonal antibody (mAb) that selectively targets IL-17A, is highly efficacious in the treatment of moderate to severe plaque psoriasis, starting at early time points, with a sustained effect and a favorable safety profile. CLEAR is a phase 3b study comparing the efficacy and safety of secukinumab vs ustekinumab, an anti-IL-12/23 mAb, in adults with moderate to severe plaque psoriasis.
OBJECTIVE: This analysis focused on the treatment effect on skin-related quality of life as measured by the Dermatology Life Quality Index (DLQI) as well as its association with skin clearance as measured by the Psoriasis Area and Severity Index (PASI).
METHODS: Data from baseline to week 16 for patients aged ≥ 18 years randomized 1:1 to subcutaneous treatment groups (secukinumab 300 mg and ustekinumab 45 mg or 90 mg according to body weight at baseline) were used for this analysis. The DLQI was administered at baseline, weeks 4, 8, 12, and 16, with total and subscale scores computed at all visits. DLQI response was defined as no effect of skin problems on health-related quality-of-life (DLQI total score of 0 or 1).Time to response was computed as the period from the randomization date to the time when DLQI 0/1 response had occurred. Median time to response was compared between treatment groups using Kaplan-Meier methods with a log-rank test.
RESULTS: Mean (SD) baseline DLQI total scores were similar

for both treatment arms: secukinumab 13.4 (7.63); ustekinumab 13.2 (7.57). The mean DLQI total score as well as all subscale scores (symptoms and feelings, daily activities, leisure, work and school, personal relationships and treatment scores) improved (decreased) continuously over the treatment period in both treatment groups, with more pronounced improvements in the secukinumab arm than the ustekinumab arm at all visits (weeks 4, 8, 12, 16; $P < .001$ on DLQI total score). Up to week 16, 80.7% of subjects treated with secukinumab achieved DLQI response (0/1) vs 69.3% treated with ustekinumab ($P < .0001$). The median time to DLQI response (0/1) was significantly shorter for secukinumab compared to ustekinumab (8 weeks vs 12 weeks, $P < .0001$).

LIMITATIONS: The analysis population comprised patients who participated in clinical trials and may not be representative of this patient population as a whole.

CONCLUSION: Secukinumab treatment provides stronger and faster relief from patient-reported quality-of-life than ustekinumab in patients with moderate to severe plaque psoriasis.

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DISCLOSURES: A Blauvelt reports personal fees and other from Novartis, during the conduct of the study; personal fees and other from Lilly, personal fees and other from Valeant, personal fees and other from Merck, personal fees and other from Janssen, personal fees and other from Boehringer Ingelheim, outside the submitted work. Roles included scientific consultant and clinical study investigator. N Korman has been a consultant, advisor and/or received speaking fees and/or grants and/or served as an investigator in clinical trials for the following companies: Abbott/AbbVie, Amgen, Biogen Idec, Celgene, Chugai, Dermira, Eli Lilly, Immune Tolerance Network, Janssen, Kyowa Hakko Kirin, Leo Pharma, National Psoriasis Foundation, Merck, Novartis, Pfizer, Regeneron, and Trevi Pharmaceuticals. P Mollon, Y Zhao, M Milutinovic, R You and T Fox are employees of Novartis Pharmaceutical Corporation. B Sherif and N Williams are employees of RTI Health Solutions. M Augustin has served as consultant to or paid speaker for clinical trials sponsored by companies that manufacture drugs used for the treatment of psoriasis, including Abbvie, Almirall, Amgen, Biogen, Boehringer Ingelheim, Celgene, Centocor, Eli-Lilly, GSK, Janssen-Cilag, Leo, Medac, Merck, MSD, Novartis, Pfizer, UCB and Xenoport.

PA-45: Secukinumab treatment provides more effective relief from patient-reported psoriasis-related pain, itching, and scaling than ustekinumab

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BACKGROUND: Secukinumab, a fully human monoclonal antibody (mAb) that selectively targets IL-17A, is highly efficacious in the treatment of moderate to severe plaque psoriasis, starting at early time points, with a sustained effect and a favorable safety profile. CLEAR is a phase 3b study comparing the efficacy/safety of secukinumab vs ustekinumab, an anti-IL-12/23 mAb, in adults with moderate to severe plaque psoriasis.

OBJECTIVE: This analysis examined the treatment effect as measured by patient-reported assessments of psoriasis-related pain, itching, and scaling severity.

METHODS: Data from baseline to week 16 for patients aged ≥ 18 years randomized 1:1 to subcutaneous treatment groups (secukinumab 300 mg and ustekinumab 45 mg or 90 mg according to body weight at baseline) were used for this analysis. Psoriasis-related pain, itching, and scaling over the last 24-hours were assessed using a 0-10 numerical rating scale with higher scores indicating greater severity. The mean treatment difference at week 16 for pain, itching, and scaling was examined via analysis of covariance adjusting for geographical region, body weight stratum, and baseline score. The percentage of subjects reporting complete relief of symptoms (score = 0) was compared between treatment arms. Time to complete relief was computed as the period from randomization to the week when a symptom score of 0 occurred. Median time to complete symptom relief was compared between treatment arms using Kaplan-Meier methods with a log-rank test.

RESULTS: The full analysis set included 336 subjects randomized to secukinumab 300 mg and 339 subjects to ustekinumab. Mean baseline scores were similar for both treatment groups: secukinumab/ustekinumab: pain 4.0/3.8; itching: 6.3/6.3, scaling: 6.5/6.5. Mean changes from baseline to week 16 for pain, itching, and scaling were significantly greater for secukinumab (-3.3, -5.0, and -5.7) than for ustekinumab (-2.8, -4.6, and -5.2; all $P < .05$). Significantly more secukinumab-treated subjects achieved complete pain (80.3% vs 69.7%), itching (64.0% vs 52.2%), and scaling (74.4% vs 56.1%) relief by week 16 than ustekinumab-treated subjects (all, $P < .05$). The median time to complete itching (12 vs 16 weeks) and scaling relief (8 vs 16 weeks) was significantly faster for secukinumab than for ustekinumab (both $P < .001$). The median time to pain relief was 8 weeks for both treatment arms, but the Kaplan-Meier curves were statistically different, and the log rank test favored secukinumab ($P = .0056$).

LIMITATIONS: The analysis population comprised patients who participated in clinical trials and may not be representative of this patient population as a whole.

CONCLUSION: Secukinumab 300 mg alleviates patient-reported psoriasis-related pain, itching, and scaling significantly faster and better than ustekinumab.

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DISCLOSURES: B Strober has served on advisory boards for AbbVie, Amgen Inc, Celgene, Janssen, Novartis, Pfizer, and UCB Pharma. He has also been a consultant for AbbVie, Amgen Inc, Celgene, Eli Lilly, Janssen, Maruho, Novartis, and Pfizer, and a paid speaker for AbbVie. A Blauvelt reports personal fees and other from Novartis, during the conduct of the study; personal fees and other from Lilly, personal fees and other from Valeant, personal fees and other from Merck, personal fees and other from Janssen, personal fees and other from Boehringer Ingelheim, outside the submitted work. Roles included scientific consultant and clinical study investigator. Y Zhao, M Milutinovic, P Mollon, R You and T Fox are employees of Novartis Pharma AG. B Sherif and N Williams are employees of RTI Health Solutions. M Augustin has served as consultant to or paid speaker for clinical trials sponsored by companies that manufacture drugs used for the treatment of psoriasis, including Abbvie, Almirall, Amgen, Biogen, Boehringer Ingelheim, Celgene, Centocor, Eli-Lilly, GSK, Janssen-Cilag, Leo, Medac, Merck, MSD, Novartis, Pfizer, UCB and Xenoport. M Lebwohl is an employee of the Mount Sinai Medical Center, which receives research funds from AbbVie, AbGenomics, Amgen, Anacor, Aqua, Canfite Biopharma, Celgene, Clinuvel, Coronado Biosciences, Eli Lilly, Ferndale, Janssen Biotech, LEO Pharmaceuticals, Merz, Novartis, Pfizer, Sandoz, Sun Pharmaceuticals, Valeant.

PA-46: Treatment emergent cardiovascular events, serious infections, and malignancies from the ESPRIT 10-year postmarketing surveillance registry of adalimumab for moderate to severe psoriasis: a 7-year interim safety analysis

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BACKGROUND: ESPRIT is an ongoing, 10-year (y) observational registry, initiated as a part of postmarketing commitment to the US Food and Drug Administration and European Medicines Agency, prospectively evaluating the long-term safety of originator adalimumab (ADA) in routine clinical practice for adult patients with chronic plaque psoriasis.
OBJECTIVES: To report the interim safety results for all treatment-emergent (TE) cardiovascular (CV) events, serious infections (SI), and malignancies over the first 7 yrs of ESPRIT registry.
METHODS: ESPRIT enrolled patients (pts) who were continuing ADA treatment from a current prescription or previous study participation, or initiating ADA ≤4 weeks of registry entry. This 7-y interim analysis of ESPRIT registry included data collected retroactively since the initial ADA dose (including data from previous rollover pts) and cumulatively from 26 Sep 2008 to 30 Nov 2015. Adverse Events (AEs) of special interest included in this safety analysis were TE CV events (myocardial infarction [MI], cerebrovascular accident [CVA], and congestive heart failure [CHF]), SI, and malignancies. Incidence rates (IR) for All-TEAEs, reported as events per 100 pt yrs (E/100PY), were determined overall and by subgroups of overall exposure to ADA.
RESULTS: This analysis included 6051 pts representing 23,660.1 PY of overall ADA exposure. IR for TE MI/CVA/CHF were 0.1/0.1/<0.1 E/100PY overall and 0.8/0.2/0.3, 0.1/0.1/0, 0.2/0.1/<0.1, <0.1/0.1/<0.1, and <0.1/0.2/<0.1, for pts with 1 y, >1–3y, >3–5y, >5–7y, and >7y of overall exposure to ADA. The overall IR rates for TE SI and malignancies were 1.0 E/PY, each. For pts with 1 y, >1–3y, >3–5y, >5–7y, and >7y of overall exposure to ADA, IR of SI/malignancy were 6.8/3.2, 2.2/1.5, 1.0/0.8, 0.6/0.9, and 0.7/1.0 E/100PY, respectively. These IR were consistent with what would be expected for the Ps population treated with ADA and does not indicate a new safety signal. TE CV events, SI, or malignancies were the primary causes of 8, 1, and 12 deaths (<0.1 E/100PY, each), respectively. Through 30 Nov 2015, 99.1%, 96.7%, and 97.1% of patients remained free of TE CV events, SI, and malignancies, respectively.
CONCLUSION: The IR of TE CV events, SI, and malignancies were consistent with rates observed in ADA clinical trials and remained stable with up to >7 y of overall exposure to ADA. The majority of pts remained free of TE CV events, SI, and malignancy as of 30 Nov 2015.
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DISCLOSURES: J Wu has received research funding from AbbVie, Amgen, AstraZeneca, Boehringer Ingelheim, Coherus Biosciences, Dermira, Eli Lilly, Janssen, Merck, Novartis, Pfizer, Regeneron, Sandoz, and Sun Pharmaceutical Industries; he is consultant for AbbVie, Amgen, Celgene, Dermira, , Eli Lilly, Pfizer, Regeneron, and Sun Pharmaceutical Industries. D Thaçi has received honoraria from AbbVie, Amgen, Biogen-Idec, Celgene, Dignity, Janssen, Leo, Maruho, Mitsubishi, Lilly, Novartis, Pfizer, Regeneron/Sanofi, Sandoz/Hexal, and UCB for participation on ad boards, as a speaker and for consultancy; and received research grants from AbbVie, Biogen-Idec, Celgene and Novartis. W Abramovits has received honoraria or fees for serving on advisory boards, as a speaker, and as a consultant, and grants as an investigator from AbbVie, Allergan, Anacore Pharm, Aqua Pharma, Celgene, Centocor, Conversant, Eli Lilly, Exeltis, Galderma, Genentech, GSK, Innocutis, Janssen Biotech, Leo Pharma, MediMetricks, Merck, Novartis, Novan, Otsuka, PharmaDerm, Perrigo, Pfizer, Promius, Prothena, PuraCap, Quinnova, Ranbaxy, Regeneron , Sanofi, Taro, Teva, Tioga, Tolmar, Valeant, and Xenoport. D Guo, D Arikan, M Bereswill, A Camez, and WC Valdecantos are full-time salaried employees of AbbVie and may own stock/options.
FUNDING/SUPPORT: AbbVie funded the ESPRIT study (NCT00799877), contributed to its design and participated in data collection, analysis and interpretation of the data, and in writing, review, and approval of the publication. Medical writing support was provided by Deepa Venkitaramani, PhD, of AbbVie.

PA-47: VYCROSS™: An innovative dermal filler technology

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BACKGROUND: Dermal fillers have become increasingly popular over the last decade for non-surgical correction of age-related signs (eg, wrinkles and lines), volume restoration, and facial contouring. Hyaluronic acid (HA) is a natural component of the extracellular matrix; it hydrates and supports the skin layers and thus is an ideal constituent for dermal filler formulations. In spite of HA being highly soluble and fully biocompatible in its natural state, it has a rapid turnover in vivo through enzymatic and free radical degradation (<24 hours).[1] A modified crosslinked gel formulation is more resistant to degradation and allows for a dermal filler to provide aesthetic correction for up to 24 months, depending on the crosslinking technology involved and the region of the face injected.[1,2] Juvéderm™ Ultra® products incorporate HYLACROSS™ technology, which includes non-pathogenic bacterium-derived, non-animal, high-molecular-weight HA crosslinked with 1,4-butanediol diglycidyl ether (BDDE), resulting in cohesive homogenous gels that have a long duration of action. The Juvéderm™ Ultra® range has customized rheological properties based on the level of crosslinking involved.[3] VYCROSS™ technology is incorporated into the next range of Juvéderm™ products (eg, Volbella®) and uses an innovative crosslinking process alongside a proprietary combination of a low- and high-molecular-weight HA.[4] VYCROSS™ products are formulated with lower HA concentrations than the Juvéderm™ Ultra® products. This patented formulation of HA, crosslinked with BDDE via an efficient process, enables all the products with VYCROSS™ technology to have a tightly crosslinked HA network, and yet individually tailored gel elasticity and cohesivity. This additionally lends to the products having an increased duration of action and allows for individual products with varied lift capacities. The specific combination of low- and high-molecular-weight HA in products with VYCROSS™ technology produces long-lasting gels with tailored properties, including higher gel elasticity and varying cohesivity. While cohesivity is an essential characteristic of Juvéderm™ crosslinked products, tuning cohesivity can make the product more moldable and easier to inject, which can be beneficial for both superficial injections or delicate areas (easy spreading and little massage required) and for facial contouring (easy sculpting).[5] An additional benefit of this technology is a lower water uptake in vitro.

METHODS: Major properties exhibited by dermal fillers using HYLACROSS™ and VYCROSS™ technology were demonstrated in preclinical tests. The extrusion profile of the individual products was evaluated by measuring the force needed to extrude the gel through the needle at a fixed rate with an automated traction bench. Gel elasticity (G´) and cohesivity were evaluated by rheological measurements in both oscillation and compression mode, respectively. Gel smoothness was assessed based on microscopic observations. In vitro water uptake was demonstrated through visualization of the maximum water absorption (highlighted with a blue dye).

RESULTS: The crosslinking degrees by NMR quantification of the BDDE linked to HA were demonstrated to be the same across the VYCROSS™ range and varied for the HYLACROSS™ range. VYCROSS™ and HYLACROSS™ products were easy to extrude and exhibited smooth extrusion profiles. VYCROSS™ products demonstrated varied cohesivity and elasticity (G´) across the range whereas HYLACROSS™ products demonstrated increased cohesivity and a lower relative elasticity (G´). Formulations using both HYLACROSS™ and VYCROSS™ technologies were found to be smooth. In vitro water uptake was lower in products with VYCROSS™ vs those with HYLACROSS™.

CONCLUSION: VYCROSS™ technology retains the Juvéderm™ HYLACROSS™ properties of allowing for smooth and cohesive gels, with ease of extrusion and individually customized gel elasticity and cohesivity. The VYCROSS™ technology is incorporated in Voluma® with lidocaine and Volbella® with lidocaine and offers a tailored approach to aesthetic procedures.

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DISCLOSURES: A Bernardin, S Pierre, A Roca-Martinez, C Fugazza, and P Lebreton are employees of Allergan plc. S Pather was an employee of Allergan plc at the time of the study.