Clinically significant improvements in patient-reported outcomes (PROs) in patients with a generalized pustular psoriasis (GPP) flare treated with spesolimab

Alexander A. Navarini[1], Manuelle Viguier[2], Tsen-Fang Tsai[3], Akimichi Morita[4], Jörg C. Prinz[5], Ming Tang[6], Mogana Sivalingam[7], Christian Thoma[8], Mark G. Lebwohl[9]

[1]Department of Dermatology, University Hospital Basel, Basel, Switzerland; [2]Department of Dermatology-Venereology, Hôpital Robert Debré, Reims, France; [3]Department of Dermatology, National Taiwan University Hospital and National Taiwan University College of Medicine, Taipei, Taiwan; [4]Department of Geriatric and Environmental Dermatology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan; [5]Department of Dermatology and Allergology, Ludwig-Maximilian-University Munich, Munich, Germany; [6]Boehringer Ingelheim (China) Investment Co., Ltd, Shanghai, China; [7]Boehringer Ingelheim International GmbH, Ingelheim, Germany; [8]Boehringer Ingelheim International GmbH, Biberach, Germany; [9]Icahn School of Medicine at Mount Sinai, New York, NY, USA

In Effisayil 1, patients with a GPP flare who were treated with IV spesolimab 900 mg had clinically significant improvements from baseline, as assessed by MCIDs, in the PROs of pain, fatigue, overall QoL, and cutaneous symptoms

PURPOSE

To determine the impact of spesolimab on the achievement of MCIDs in PROs for patients with a GPP flare in the Effisayil 1 study.

INTRODUCTION

- GPP is a rare and potentially life-threatening skin disease characterized by recurrent flares of sterile, visible pustules, that can occur with or without systemic inflammation[1–3]
- In the multicenter, randomized, double-blind, placebo-controlled Effisayil 1 study (NCT03782792) in patients presenting with a GPP flare, treatment with spesolimab, an anti-IL-36 receptor antibody, led to rapid pustular and skin clearance within 1 week compared with placebo[4]
  - Primary endpoint (GPPGA pustulation subscore of 0; no visible pustules): 54% vs 6% (one-sided p<0.001)
  - Key secondary endpoint (GPPGA total score of 0 or 1; clear or almost clear skin): 43% vs 11% (one-sided p=0.0118)
- Symptoms of GPP flares can be severe, and include pain, itching, and fatigue that can impact overall patient QoL[5,6]
- Here, we assess the proportion of patients in Effisayil 1 who achieved pre-defined MCIDs in pain VAS, FACIT-Fatigue, DLQI, and PSS, after treatment with IV spesolimab 900 mg

CONCLUSIONS

- In Effisayil 1, patients who received spesolimab treatment for GPP flares achieved clinically significant improvements from baseline in the PROs of pain, fatigue, overall QoL, and cutaneous symptoms
- Patients in the placebo arm demonstrated similar improvements in all PROs to patients in the spesolimab arm after receiving an optional dose of OL IV spesolimab 900 mg at Day 8
- These results support the use of spesolimab for the treatment of patients with a GPP flare

METHODS

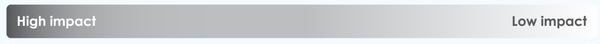
- All four PROs were measured on Day 1, Day 8, and Weeks 2–4, 8, and 12 to monitor changes in these outcomes over time. PSS scores were also measured on Day 2 and Day 3
- Scan the QR code at the bottom of this poster to see full details of the Effisayil 1 study design[4,11]

RESULTS

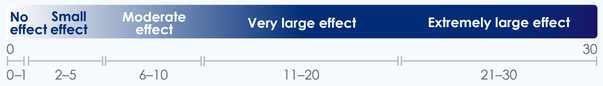
PRO survey multiple-choice answers, their corresponding scores, and definitions of MCIDs

Pain VAS
- Measures intensity of pain
- Score is determined by measuring the distance (mm) on the 100 mm line between the 'no pain' anchor and the patient's mark, with a higher score indicating greater pain intensity
- MCID defined as a 30-point decrease from baseline[7]
- Recall period: current pain

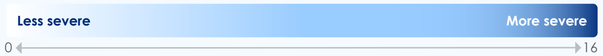
FACIT-Fatigue
- 13-item questionnaire
- Measures self-reported fatigue and its impact on daily activities and function
- Each answer is based on a 5-point scale; when totalled gives a score range of 0–52
- MCID defined as a 4-point improvement from baseline[8]
- Recall period: 1 week



DLQI
- 10-item questionnaire
- Assesses six domains of QoL: symptoms and feelings, daily activities, leisure, work and school, personal relationships, and treatment
- Calculated by summing the scores of each question, resulting in a total score range of 0–30
- MCID defined as a 4-point decrease from baseline[9]
- Recall period: 1 week

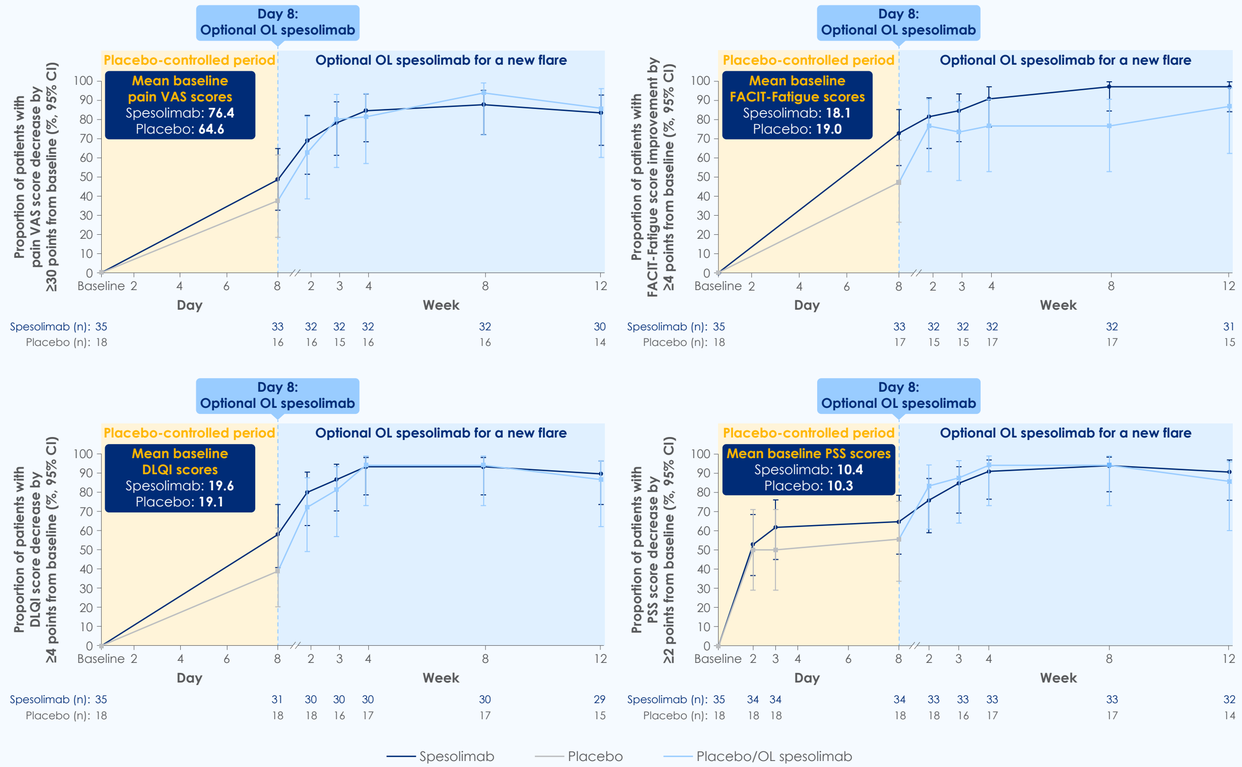


PSS
- 4-item questionnaire
- Measures severity of pain, redness, itching, and burning
- Symptom severity assessed using a 5-point scale ranging from 0 (none) to 4 (very severe); when totalled gives a score range of 0–16
- MCID defined as a 2-point decrease from baseline[10]
- Recall period: 24 hours



High total PRO scores indicate a large impairment or intense severity, except for FACIT-Fatigue, for which a higher score represents less fatigue. MCIDs are defined based on the literature

Proportion of patients who showed a clinically significant improvement in pain VAS, FACIT-Fatigue, DLQI, and PSS from baseline over time



ITT: Data are all observed cases regardless of use of any other medication for GPP or any additional dose of spesolimab. At Day 8, 12 patients randomized to spesolimab and 15 patients randomized to placebo received OL spesolimab. After Day 8, 4 patients in the spesolimab arm and 2 patients in the placebo arm received spesolimab for a new flare.

Proportion of patients achieving MCIDs from baseline over time. After optional administration of OL spesolimab at Day 8, patients in the placebo arm showed similar improvements in PROs to patients who received spesolimab at baseline

Abbreviations
CI, confidence interval; DLQI, Dermatology Life Quality Index; FACIT-Fatigue, Functional Assessment of Chronic Illness Therapy – Fatigue; FDA, US Food and Drug Administration; GPP, generalized pustular psoriasis; GPPGA, Generalized Pustular Psoriasis Physician Global Assessment; IL-36, interleukin-36; ITT, intention-to-treat; IV, intravenous; MCID, minimal clinically important difference; OL, open label; pain VAS, pain visual analog scale; PRO, patient-reported outcome; PSS, Psoriasis Symptom Scale; QoL, quality of life.

References
1. Navarini AA, et al. *J Eur Acad Dermatol Venereol* 2017;31:1792–1799; 2. Bachelez H. *Acta Derm Venereol* 2020;100:adv00034; 3. Ryan TJ and Baker H. *Br J Dermatol* 1971;85:407–411; 4. Bachelez H, et al. *N Engl J Med* 2021;385:2431–2440; 5. Choon SE, et al. *Int J Dermatol* 2014;53:676–684; 6. Strober B, et al. *J Am Acad Dermatol* 2021;85:AB108 (Abstract 26588); 7. Lee JS, et al. *Acad Emerg Med* 2003;10:1128–1130; 8. Cella D, et al. *J Rheumatol* 2005;32:811–819; 9. Basra MK, et al. *Dermatology* 2015;230:27–33; 10. Rentz AM, et al. *J Dermatolog Treat* 2020;31:460–469; 11. Choon SE, et al. *BMJ Open* 2021;11:e043666.

Disclosures & Acknowledgements
Spesolimab is an investigational drug and is currently undergoing Priority Review by the FDA for the treatment of GPP flares. The study was supported and funded by Boehringer Ingelheim. **AAN** declares being a consultant and advisor and/or receiving speaking fees and/or grants and/or served as an investigator in clinical trials for AbbVie, Almirall, Amgen, Biomed, Bristol Myers Squibb, Boehringer Ingelheim, Celgene, Eli Lilly, Galderma, GlaxoSmithKline, LEO Pharma, Janssen-Cilag, MSD, Novartis, Pfizer, Pierre Fabre Pharma, Regeneron, Sandoz, Sanofi, and UCB. **MV** declares paid activities as an advisor, speaker or consultant for Abbvie, Almirall, Boehringer Ingelheim, Eli Lilly, Janssen-Cilag, Meda, and Novartis. **TFT** declares conducting clinical trials or paid consulting activities for AbbVie, Boehringer Ingelheim, Celgene, Eli Lilly, GlaxoSmithKline, Janssen-Cilag, MSD, Novartis International, Pfizer, and UCB. **AM** declares receiving research grants, consulting fees, and/or speaker's fees from AbbVie, Boehringer Ingelheim, Eisai, Eli Lilly, Janssen, Kyowa Kirin, LEO Pharma, Maruho, Mitsubishi Tanabe, Nichi-Iko, Nippon Kayaku, Novartis, Sun Pharmaceutical Industries, Taiho Pharmaceutical, Torii Pharmaceutical, and Ushio. **JCP** declares paid activities as an advisor, speaker, or consultant for Almirall, Boehringer Ingelheim, Janssen-Cilag, Novartis, and Pfizer. **MT**, **MS**, and **CT** are employees of Boehringer Ingelheim. **MGL** declares paid consulting activities for Aditum Bio, Almirall, AnaptysBio, Arcutis, Aristea, Arrive Technology, Avotres Therapeutics, Biomx, Boehringer Ingelheim, Bristol Myers Squibb, Cara Therapeutics, Castle Biosciences, CorEvitas, Dermavant Sciences, Dr. Reddy's, Evelo, Evommune, Facilitate International Dermatologic Education, Forte, Foundation for Research and Education in Dermatology, Helsinn, LEO Pharma, Meiji, Mindera, Pfizer, and Verrica, and research grants from AbbVie, Amgen, Arcutis, Avotres, Boehringer Ingelheim, Dermavant Sciences, Eli Lilly, Incyte, Janssen, Ortho Dermatologics, Regeneron, and UCB. The authors met criteria for authorship as recommended by the International Committee of Medical Journal Editors (ICMJE). The authors did not receive payment related to the development of the poster. Boehringer Ingelheim was given the opportunity to review the poster for medical and scientific accuracy, as well as intellectual property considerations. Geetha Viventhraraja of OPEN Health Communications (London, UK) provided writing, editorial, and formatting support, which was contracted and funded by Boehringer Ingelheim.

Scan QR code for an interactive, electronic, device-friendly copy of this poster https://bit.ly/3qLFO7m

Click the icon to access an interactive microsite for this Smart poster