

Sustained treatment effect of spesolimab over 12 weeks for generalized pustular psoriasis flares; results from the Effisayil 1 study

Boni Elewski¹, Jonathan Barker², Ulrich Mrowietz³, Shinichi Imafuku⁴, Jinhua Xu⁵, Na Hu⁶, Manuel Quaresma⁷, Christian Thoma⁸, Hervé Bachelez^{9,10}

¹University of Alabama School of Medicine, Birmingham, AL, USA; ²St John's Institute of Dermatology, Guy's and St Thomas' NHS Foundation Trust, London, UK; ³Psoriasis-Center, Department of Dermatology, University Medical Center Schleswig-Holstein, Campus Kiel, Kiel, Germany; ⁴Department of Dermatology, Faculty of Medicine, Fukuoka University, Fukuoka, Japan; ⁵Department of Dermatology, Huashan Hospital, Fudan University, Shanghai, China; ⁶Boehringer Ingelheim (China) Investment Co., Ltd, Shanghai, China; ⁷Boehringer Ingelheim International GmbH, Ingelheim, Germany; ⁸Boehringer Ingelheim International GmbH, Biberach, Germany; ⁹Service de Dermatologie, Assistance Publique-Hôpitaux de Paris Hôpital Saint-Louis, Paris, France; ¹⁰INSERM Unité 1163, Imagine Institute of Genetic Diseases, Université de Paris, Paris, France



Patients with a GPP flare who received IV spesolimab achieved rapid clearance of pustular and skin lesions that was sustained for the duration of the 12-week study

PURPOSE

To determine if the rapid response to spesolimab for the treatment of a GPP flare observed within 1 week is sustained over 12 weeks, and to describe the observed changes in GPPGA pustulation subscore and total score in all patients.

INTRODUCTION

- GPP is a rare, neutrophilic skin disease characterized by episodes of widespread eruption of sterile, macroscopic pustules that can occur with or without systemic inflammation and symptoms^{1,2}
- Effisayil 1 (NCT03782792) was a global, multicenter, randomized, double-blind, placebo-controlled study of spesolimab, an anti-IL-36 receptor antibody, in patients with GPP presenting with a flare. At Week 1:³
 - The primary endpoint (GPPGA pustulation subscore of 0; no visible pustules) was achieved by 54% of patients receiving spesolimab vs 6% receiving placebo (one-sided p<0.001)
 - The key secondary endpoint (GPPGA total score of 0 or 1; clear or almost clear skin) was achieved by 43% of patients receiving spesolimab vs 11% receiving placebo (one-sided p=0.0118)

CONCLUSIONS

- Patients with a GPP flare treated with spesolimab achieved pustular and skin clearance, which was sustained through Week 12
- Patients initially randomized to placebo had the opportunity to receive spesolimab at Day 8, which led to improvements in pustular and skin clearance that were sustained through Week 12
- These data indicate that spesolimab rapidly targets the underlying causes of GPP flares and maintains this effect over time, further supporting its use as a potential therapeutic option for patients with a GPP flare

METHODS

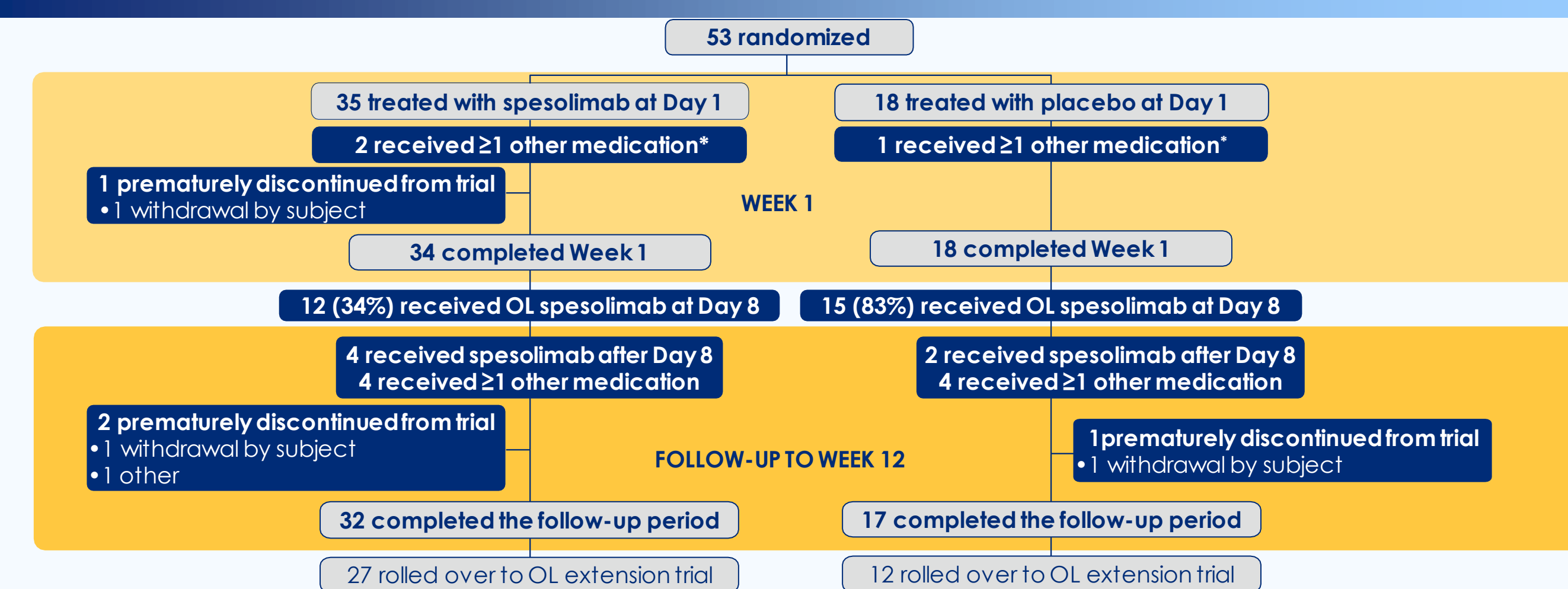
- Scan the QR code at the bottom of this poster to see full details of the Effisayil 1 study design and patient characteristics at baseline^{3,4}
- GPPGA total score and pustulation subscore were recorded on Days 1–3, and Weeks 1–4, 8, and 12

Analysis populations

- Patients who received up to two doses of spesolimab: Day 1 plus optional OL spesolimab on Day 8 for persistent flare symptoms; missing values, any use of another medication to treat GPP, or use of spesolimab for treating a new GPP flare were considered to be a non-response
- ITT analysis: observed values for all patients over time according to the randomized treatment received on Day 1, regardless of the use of any other medication for GPP or any additional dose of spesolimab

RESULTS

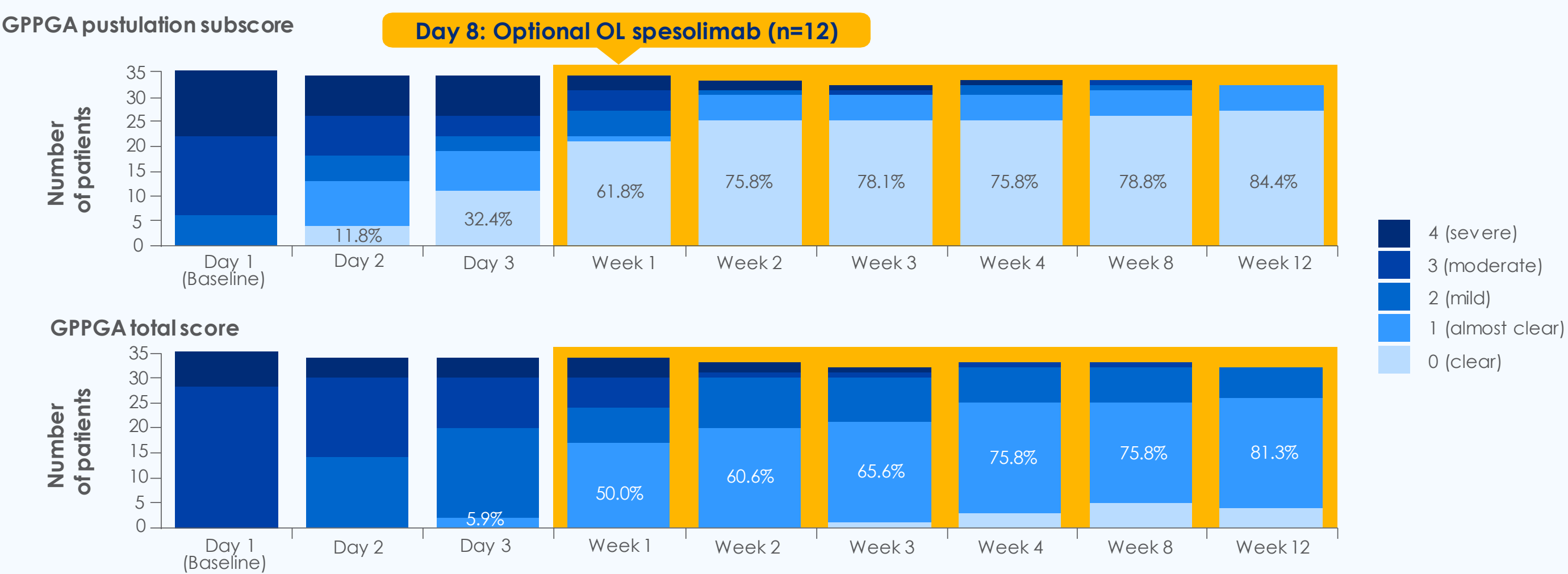
Patient disposition in the Effisayil 1 study³



For patient-level treatment information, please scan the QR code at the bottom of the poster. *1 patient continued other medication beyond Week 1.

Optional OL spesolimab at Day 8 was received by 12 patients in the spesolimab arm and 15 in the placebo arm; spesolimab for a new flare after Day 8 was received by 4 patients in the spesolimab arm and 2 in the placebo arm

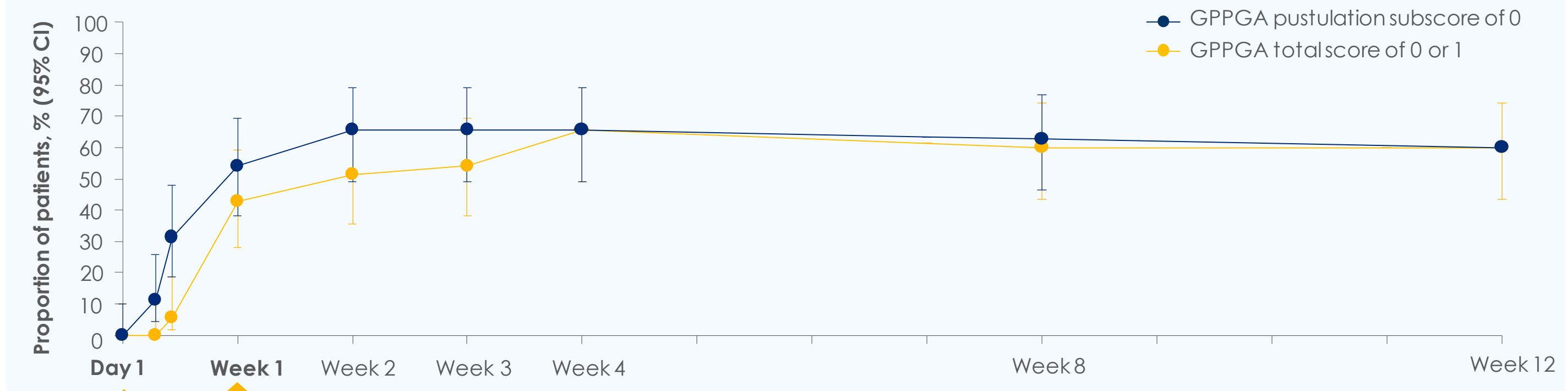
GPPGA pustulation subscore and GPPGA total score for patients randomized to spesolimab, by visit (ITT analysis)



Among 35 patients randomized to spesolimab, OL spesolimab was received by 12 patients at Day 8 due to persistent flare symptoms and by 4 patients after Day 8 due to a new flare. Other medications for GPP were started by 2 patients during Week 1 and 4 patients after Day 8. ITT: observed cases regardless of the use of any other medication for GPP or any additional dose of spesolimab. Data labels show % with GPPGA pustulation subscore of 0, or GPPGA total score of 0 or 1.

Among patients initially randomized to spesolimab, 21/34 (61.8%) achieved a GPPGA pustulation subscore of 0 by Week 1 and 27/32 (84.4%) by Week 12; 17/34 (50.0%) achieved a GPPGA total score of 0 or 1 by Week 1 and 26/32 (81.3%) by Week 12

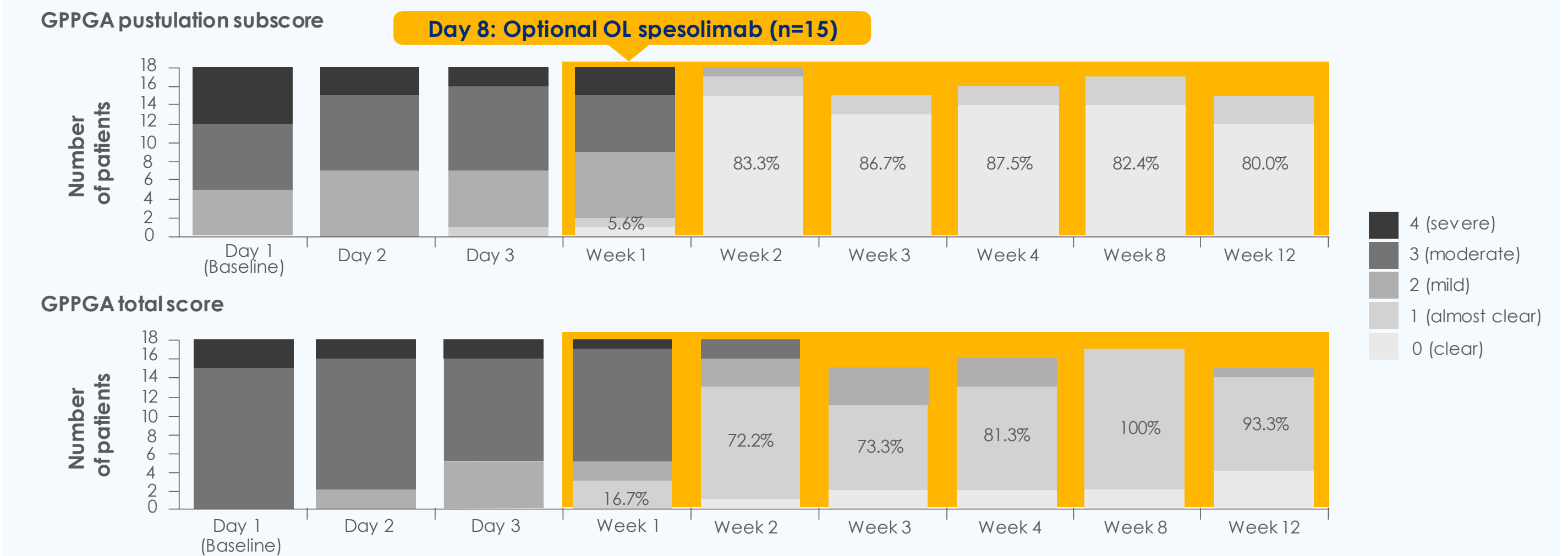
Proportion of patients randomized to spesolimab with a GPPGA pustulation subscore of 0 or a GPPGA total score of 0 or 1, through Week 12



Treatment effect in patients initially randomized to spesolimab who received up to two doses of spesolimab: Day 1 (n=35) and an optional OL dose at Day 8 (n=12). Arrows indicate the days of IV spesolimab administration. Missing values, any use of other medication for GPP, or the use of spesolimab for the treatment of a new GPP flare were regarded to be a non-response for this analysis.

Among patients who received up to two doses of spesolimab, 54.3% achieved a GPPGA pustulation subscore of 0 and 42.9% achieved a GPPGA total score of 0 or 1 at Week 1; these responses were sustained in 60.0% of patients from Week 4 until Week 12

GPPGA pustulation subscore and GPPGA total score for patients randomized to placebo, by visit (ITT analysis)



Among 18 patients randomized to placebo, OL spesolimab was received by 15 patients at Day 8 due to persistent flare symptoms and by 2 patients after Day 8 due to a new flare. Other medications for GPP were started by 1 patient during Week 1 and 4 patients after Day 8. ITT: observed cases regardless of the use of any other medication for GPP or any additional dose of spesolimab. Data labels show % with GPPGA pustulation subscore of 0, or GPPGA total score of 0 or 1.

Among patients initially randomized to placebo, 15/18 (83.3%) had a GPPGA pustulation subscore of 0 by Week 2 (1 week after optional OL spesolimab) and 12/15 (80.0%) by Week 12; 13/18 (72.2%) had a GPPGA total score of 0 or 1 by Week 2 and 14/15 (93.3%) by Week 12

Abbreviations
CI, confidence interval; FDA, US Food and Drug Administration; GPP, generalized pustular psoriasis; GPPGA, Generalized Pustular Psoriasis Physician Global Assessment; IT, intention to treat; IV, intravenous; OL, open label.

References
1. Navarini AA, et al. *J Eur Acad Dermatol Venereol* 2017;31:1792–1799. 2. Fujita H, et al. *J Dermatol* 2018;45:1235–1270. 3. Bachelez H, et al. *New Engl J Med* 2021;385:2431–2440. 4. Choon SE, et al. *BMJ Open* 2021;15:e03666.

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. BE is an investigator for AbbVie, Amgen (previously Celgene), AnaptysBio, Bausch Health (formerly Valeant Pharmaceuticals), Boehringer Ingelheim, Bristol Myers Squibb, Bi Lilly, Incyte, LEO Pharma, Merlo, Merck, Novartis, Pfizer, Regeneron, Sun Pharmaceutical Industries, UCB, and Vanda; and is a consultant for Amgen, Arcutis, Bausch Health, Bristol Myers Squibb, Boehringer Ingelheim, Bi Lilly, LEO Pharma, Novartis, and UCB. JB declares having attended advisory boards and/or received consultancy fees and/or spoken at sponsored symposia and/or received grant funding from AbbVie, Almiral, Amgen, AnaptysBio, Boehringer Ingelheim, Bristol Myers Squibb, Celgene, Bi Lilly, Janssen, LEO Pharma, Novartis, Pfizer, Samsung, Sierra, Sun Pharmaceutical Industries, and UCB. UM has been an advisor and/or received speaker's honoraria and/or received grants and/or participated in clinical trials for the following companies: AbbVie, Adixit, Almiral, Amgen (previously Celgene), Arista, Boehringer Ingelheim, Bristol Myers Squibb, Dr. Reddy's, Bi Lilly, Foamix, Formycon, Immunc, Janssen (formerly Centocor Biotech), LEO Pharma, Medac, MetlinoPharm, Novartis, Pli-Stone, Pierre Fabre, Sanofi-Aventis, and UCB. SH has served as a consultant and/or paid speaker for and/or accepted a research grant from and/or participated in clinical trials sponsored by companies including AbbVie, Amgen, Boehringer Ingelheim, Eisai, Bi Lilly, Janssen, Kyowa Kirin, LEO Pharma, Maruho Pharmaceutical, Mitsubishi Tanabe, Novartis, Sun Pharmaceutical Industries, Taiso Yakuhin Kogyo, Taria Yakuhin, and UCB. JX declares receiving grants, consulting fees, and/or speaker's fees from AbbVie, Bayer, Boehringer Ingelheim, Kyowa Kirin, La Roche-Posay, China, Novartis, Pfizer, and Sanofi. HB declares paid consulting activities for AbbVie, Almiral, Amgen, BiCAD, Boehringer Ingelheim, Dermavant Sciences, Bi Lilly, Janssen, Kyowa Kirin, LEO Pharma, Mylan, Novartis, UCB, and Xion Pharmaceuticals; grant support from Boehringer Ingelheim, Janssen, LEO Pharma, Novartis, and Pfizer; and participation on a data safety monitoring board/advisory board from Avillion. NH, MQ, and CT are employees of Boehringer Ingelheim. 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. James Parkinson, PhD, 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 the poster
<https://bit.ly/3vZaw0B>



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