

1 **Imsidolimab, an Anti-IL-36 Receptor Monoclonal Antibody for the Treatment of Generalised**  
2 **Pustular Psoriasis: Results from the Phase 2 GALLOP Trial**

3 **Running heading:** Imsidolimab for the treatment of GPP

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31 **Data availability:** The data underlying this article will be shared on reasonable request to the  
32 corresponding author.

1 **Ethics statement:** Ethics Committee approvals were obtained at all participating centres.

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3 **What is already known about this topic?**

- 4 • Generalised pustular psoriasis (GPP) is a systemic inflammatory disease. Uncontrolled activation  
5 of IL-36 pro-inflammatory activity may underlie the pathogenesis of GPP. Currently, treatment  
6 options for GPP are limited.

7 **What does this study add?**

- 8 • Imsidolimab is being developed as a targeted therapy for GPP. Results from this Phase 2 study  
9 demonstrated a rapid resolution of symptoms and pustular eruptions in subjects with GPP flare  
10 after treatment with imsidolimab.

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14 **Abstract**

15 *Background* Generalised pustular psoriasis (GPP) is a systemic inflammatory disease that can be severe,  
16 debilitating, and life-threatening. Uncontrolled activation of interleukin-36 (IL-36) pro-inflammatory  
17 activity may underlie the pathogenesis of GPP. Currently, GPP-specific treatment options are limited.

18 *Objectives* To evaluate the efficacy and safety of the anti-IL-36 receptor antibody imsidolimab in subjects  
19 with GPP.

20 *Methods* In an open-label, single-arm, multiple-dose study, subjects with GPP were treated with  
21 imsidolimab to assess clinical efficacy, tolerability, and safety. Subjects received an intravenous (IV)  
22 imsidolimab 750 mg dose on Day 1, followed by 3 doses of subcutaneous (SC) imsidolimab 100 mg  
23 administered on Days 29, 57, and 85. The primary efficacy endpoint was the proportion of subjects that  
24 achieved a clinical response at Week 4 and Week 16 following treatment with imsidolimab as measured  
25 by the Clinical Global Impression (CGI) scale.

26 *Results* A total of 8 patients were enrolled and 6 subjects completed the study. Responses were observed  
27 as early as Day 3, most rapidly for pustulation relative to other manifestations of GPP, with continued and  
28 consistent improvement across multiple efficacy assessments at Day 8, Day 29, and through Day 113.  
29 Most treatment-emergent adverse events (TEAEs) were mild to moderate in severity. No subject  
30 discontinued the study due to a non-serious TEAE. Two subjects experienced serious adverse events  
31 (SAEs) and no deaths were reported.

32 *Conclusions* Imsidolimab demonstrated a rapid and sustained resolution of symptoms and pustular  
33 eruptions in subjects with GPP. It was generally well-tolerated, associated with acceptable safety, and is  
34 advancing to Phase 3 trials. These data support targeting of IL-36 signalling with a specific antibody,  
35 imsidolimab, as a therapeutic option for this severely debilitating condition. The study was registered  
36 under EudraCT Number 2017-004021-33 and NCT 03619902.

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## 1 Introduction

2 Generalised pustular psoriasis (GPP) is a rare, but severe and debilitating disease characterised by  
3 widespread sterile pustules on erythematous skin<sup>1-4</sup> that is often accompanied by systemic signs and  
4 symptoms such as fever, nausea, pain, anorexia, and general malaise.<sup>1,4-6</sup> Life-threatening complications  
5 of GPP can include sepsis, acute renal failure, high-output congestive cardiac failure, and acute  
6 respiratory distress syndrome.<sup>6-7</sup>

7 Factors that may trigger GPP onset include viral or bacterial infections, corticosteroid use,  
8 hypocalcaemia, psychological stress, and pregnancy.<sup>7-9</sup> Recurrent flares are common, even years after  
9 initial diagnosis.<sup>10-11</sup> While it is possible for GPP to manifest in the presence of psoriasis vulgaris (PV),  
10 studies suggest that the underlying pathophysiologic mechanisms of GPP and PV may differ and that the  
11 innate immune system plays a greater role in the pathogenesis of GPP.<sup>11-14</sup> Dysregulated interleukin-36  
12 (IL-36) signalling was implicated in the pathogenesis of GPP following the identification of loss-of-  
13 function mutations in *IL36RN*, the gene encoding IL-36 receptor antagonist (IL-36RA)<sup>15-18</sup> in a subset of  
14 patients with GPP. IL-36 cytokines (IL-36 $\alpha$ , IL-36 $\beta$ , and IL-36 $\gamma$ ) engage with the IL-36 receptor (IL-36R)  
15 to initiate signalling events leading to pro-inflammatory responses.<sup>19-21</sup> IL-36RA normally opposes IL-36  
16 mediated signalling.<sup>22-24</sup> Approximately 46-82% of GPP cases without PV have mutations in *IL36RN*<sup>25-26</sup>,  
17 while the proportion of *IL36RN* mutant carriage is much lower (10-17%) in cases of GPP associated with  
18 PV.<sup>27</sup> It was subsequently determined that IL-36 is a dominant cytokine in GPP<sup>28</sup>, suggesting that  
19 excessive IL-36 mediated pro-inflammatory activity may broadly underlie the pathogenesis of GPP.  
20 Therefore, targeting IL-36R represents a rational therapeutic strategy to control the pathological  
21 inflammatory cascade in GPP.<sup>14, 29</sup>

22 This Phase 2 study was designed to evaluate the efficacy and safety of imsidolimab in subjects with GPP  
23 flare. Imsidolimab is a high-affinity humanised immunoglobulin G4 (IgG4) monoclonal antibody (mAb)  
24 that specifically binds IL-36R, antagonising IL-36 signalling. Targeting IL-36R represents an elegant  
25 therapeutic strategy to control pathogenic pro-inflammatory IL-36 pathway activation in GPP. Results of  
26 a placebo-controlled clinical trial of spesolimab, another mAb against the IL-36R, showed significant  
27 efficacy in subjects with GPP flare.<sup>35</sup> Currently, GPP can be difficult to manage chronically<sup>31</sup>, and there is  
28 no standard guidance for GPP therapy in most countries.<sup>5, 30</sup> While acitretin is indicated for extensive and  
29 severe refractory forms of psoriasis in the EU, and the biologic agents secukinumab, ixekizumab,  
30 brodalumab, and guselkumab have been approved in Japan to treat GPP<sup>30-31</sup>, rigorous and well-controlled  
31 efficacy data in GPP are lacking. Therefore, there is a need for additional safe and more effective  
32 treatments to manage GPP.

## 34 Materials & Methods

### 35 *Study Design and Participants*

36 GALLOP was an open-label, single-arm, multiple-dose study to assess the clinical efficacy, tolerability,  
37 and safety of multiple doses of imsidolimab in subjects with active GPP.

38 Eligibility criteria included the following: subjects 18 to 75 years of age, with a clinically confirmed  
39 diagnosis of active GPP, Japanese Dermatology Association severity index (JDA-SI) total score of >6  
40 with active pustules and erythema accounting for at least 10% of body-surface area (BSA) or had a  
41 Generalised Pustular Psoriasis Physician's Global Assessment (GPPPGA) score of at least moderate  
42 severity and must have been a candidate for systemic therapy or phototherapy. Patients were excluded if

1 they had any other forms of psoriasis except concomitant PV. Any concurrent therapies likely to have  
2 efficacy in GPP or psoriasis were washed out and their use was prohibited during participation.

3 The study had a Screening Period of up to 42 days (6 weeks), treatment period of 12 weeks, and  
4 follow-up period of 12 weeks for a total duration of 30 weeks (Figure 1). Written informed consent was  
5 obtained from each subject prior to initiating any study-related procedures. Ethics Committee approvals  
6 were obtained at all participating centres; the study complied with the International Council for  
7 Harmonisation's Good Clinical Practice and local regulations, and the study was conducted according to  
8 the Helsinki declaration.

### 9 ***Study Treatments and Assessments***

10 Subjects were to receive an intravenous (IV) imsidolimab 750 mg dose on Day 1, followed by 3 doses of  
11 subcutaneous (SC) imsidolimab 100 mg administered on Days 29, 57, and 85. The doses selected for this  
12 study have demonstrated favourable safety profile and prolonged pharmacodynamic (PD) activity in a  
13 Phase 1 study (ANB019-001). A loading dose of 750 mg IV was administered on Day 1 to enable steady  
14 state concentration to be reached faster at initiation of the imsidolimab 100 mg SC dose.

15 At study visits, changes in disease activity (response to study treatment), safety, and tolerability were  
16 monitored. Disease activity was evaluated using the Clinical Global Impression (CGI) scale according to  
17 the modified JDA-SI (mJDA-SI<sup>32</sup>). The mJDA-SI is a composite GPP instrument comprised of  
18 assessments of skin lesions (area of erythema with pustules, area of erythema [total], and area of oedema)  
19 and systemic manifestations and laboratory findings (fever, white blood cell count, C-reactive protein,  
20 and serum albumin). The CGI is an instrument that categorises overall GPP status as either "Very much  
21 improved", "Much improved", "Minimally improved", "No change", or "Worsened" based on the change  
22 in mJDA-SI total score from Baseline and/or descriptors of clinical severity. In addition, change in total  
23 BSA affected by GPP as measured by mJDA-SI, systemic manifestations, and laboratory findings as per  
24 mJDA-SI, GPPPGA scale<sup>29</sup>, and quality of life (QoL), using the Dermatology Life Quality Index  
25 (DLQI)<sup>34</sup>, was assessed. The GPPPGA scale is scored from 0 (clear) to 4 (severe), with morphological  
26 descriptors of each level of disease severity that encompass major signs of the disease (erythema,  
27 pustulation, scaling/crusting). For inflammatory skin conditions, a change in DLQI of at least 4 points is  
28 generally considered a minimally clinically important difference (MCID).

29 Safety assessments including adverse event (AE)/serious adverse event (SAE) monitoring, vital signs  
30 measurements, physical examination, electrocardiograms (ECGs), laboratory measurements, and urine  
31 assessments were performed during the study.

### 32 ***Endpoints***

33 The primary efficacy endpoint was the proportion of subjects in the Full Analysis Set (N=8) that achieved  
34 a clinical response at Week 4 and at Week 16 following treatment with imsidolimab as measured by the  
35 CGI scale. Clinical response was defined as achieving "Very Much Improved," "Much Improved," or  
36 "Minimally Improved" on the CGI scale according to the mJDA-SI total score.

37 The secondary efficacy endpoints were the change in affected BSA of erythema with pustules, erythema,  
38 and oedema as measured by mJDA-SI by study visit, the change from Baseline in GPPPGA scores by  
39 study visit, and the change in DLQI by study visit.

40 Efficacy was also evaluated using the GPPPGA scale; however, the GPPPGA scale was added to the  
41 study after the first 3 subjects had already enrolled in response to a request from the FDA. Therefore, data  
42 on GPPPGA at Baseline was only available for 5 of 8 subjects. Additionally, one of the 5 subjects with a

1 Baseline GPPPGA score discontinued from the study at Day 29; thus only 4 of 5 subjects had GPPPGA  
2 scores from Week 4 onward.

### 3 ***Statistical Analysis***

4 Statistical analysis was performed using statistical analysis system (SAS®) Version 9.4. The default  
5 summary statistics for continuous variables includes number of contributing observations (n), mean,  
6 standard deviation (SD), median, minimum, and maximum. Unless otherwise specified, “Baseline” was  
7 defined as the last non-missing measurement taken prior to the reference start date and time (this included  
8 unscheduled visits). For numerical variables, change from Baseline was calculated as the difference  
9 between the value of interest and the corresponding Baseline value. Point estimates were accompanied  
10 with 2-sided 95% confidence intervals (CI), where applicable.

11

## 12 **Results**

### 13 ***Demographic and Other Baseline Characteristics***

14 Study participants (N=8) were enrolled at 5 sites in the UK and Poland and were 50% female, with a  
15 mean (SD) age of 51.3 (14.91) years, mean (SD) body mass index (BMI) of 28.86 (3.417) kg/m<sup>2</sup>, and  
16 mean (SD) time since GPP diagnosis of 3.99 (6.48) years (Table 1). All but 1 subject was white. The  
17 mean (SD) Baseline total mJDA-SI Score was 9.1 (2.75), consistent with at least moderate disease  
18 severity (mild, n=1; moderate, n=5; severe, n=2). The mean (SD) area of erythema with pustules was  
19 23.51% (18.15), and of the 5 subjects who were administered the GPPPGA scale, the Baseline score was  
20 3.8 (moderate, n=1; severe, n=4). Genotypic testing, using Sanger sequencing, indicated homozygous  
21 wild-type *IL36RN*, *CARD14*, and *APIS3* alleles for all 8 subjects treated in this study.

22 The Full Analysis Set included all subjects, regardless of whether treatment was received or not. A total  
23 of 8/8 subjects received the initial imsidolimab IV infusion and 6/8 (75%) subjects received all  
24 3 follow-up SC doses. The 2 subjects who did not receive the follow-up SC imsidolimab doses had  
25 discontinued from the study early. One subject was discontinued due to use of a prohibited medication  
26 (infliximab). The second subject was discontinued due to lack of improvement.

### 27 ***Primary Efficacy Endpoint: Proportion of Subjects Achieving Clinical Response at Week 4 and*** 28 ***Separately at Week 16 Following Treatment with Imsidolimab as Measured by the CGI Scale***

29 At Weeks 4 and 16, 75% of subjects were CGI responders (Figure 2). Among responders, 50% were  
30 “Very much improved.”

### 31 ***Secondary Efficacy Endpoint: Change in Affected BSA of Erythema with Pustules, Erythema, and*** 32 ***Oedema as Measured by mJDA-SI by Study Visit***

33 Concurrent and substantial improvement was observed in the 3 skin components of GPP: pustules,  
34 erythema, and oedema. Improvement was sustained through the duration of imsidolimab treatment.  
35 Following imsidolimab administration, BSA covered by erythema with pustules improved most rapidly  
36 based on the mJDA-SI skin component assessment. Mean BSA covered by erythema with pustules was  
37 23.51% at Baseline (Figure 3A). The percent change from Baseline was -60% by Day 8 and -94% by  
38 Week 4 (Day 29) (Figure 3B). Mean BSA with erythema was 50.89% at Baseline (Figure 3C). The  
39 percent change from Baseline was -30% on Day 29 and -60% on Day 113 (Figure 3D). Mean BSA with  
40 oedema was 33.76% at Baseline (Figure 3E). The percent change from Baseline was -77% on Day 29 and

1 -78% on Day 113 (Figure 3F). Percent changes from Baseline were sustained throughout the duration of  
2 treatment.

### 3 ***Secondary Efficacy Endpoint: Change from Baseline in GPPPGA Scores by Study Visit***

4 The severity of GPP was assessed using the GPPPGA scale, which captures the investigator's assessment  
5 of the overall disease severity at the time of evaluation. GPPPGA was added after the study started;  
6 therefore, a baseline assessment was only available for 5 of the study subjects and one discontinued prior  
7 to Day 29. Therefore, Weeks 4 and 16 GPPPGA assessments are only possible for 4 subjects.

8 Following imsidolimab treatment by Week 4, the mean (SD) change from Baseline GPPPGA score  
9 improved (decreased) by -2.5 (0.58) and the mean (SD) percent change from Baseline was -62.5%  
10 (14.4%) on the GPPPGA scale (Table 2). At Week 16, the mean (SD) change from Baseline was -3.0  
11 (0.82) and the mean (SD) percent change from Baseline was -75.0% (20.4%).

### 12 ***Secondary Efficacy Endpoint: Change in Dermatology Life Quality Index (DLQI) Total Score by*** 13 ***Study Visit***

14 Consistent with the improvements observed in the other clinical measures of GPP severity, the subject-  
15 reported DLQI measure also improved over time following imsidolimab treatment (Figure 4). Subjects  
16 had a mean DLQI of 15.8 at Baseline, indicating a very large effect on the subjects' health-related QoL.  
17 Following administration of imsidolimab, DLQI continued to improve through Week 20 (Day 141). By  
18 Day 29, the DLQI total score improved (decreased) from Baseline to 11.7 and to 9.7 by Day 141.

### 19 ***Photographic Documentation of Disease Improvement***

20 While photography was not captured for all subjects, observations on photographic images were  
21 consistent with improvements assessed in other clinical measures of GPP (Figure 5). The photographs  
22 documented a rapid and sustained improvement in disease severity following imsidolimab treatment for  
23 these subjects (n=2).

### 24 ***Safety Evaluation***

25 No deaths occurred during the study and no subjects withdrew due to a TEAE. Overall, 6 out of 8 subjects  
26 (75.0%) experienced at least 1 TEAE during the treatment period (Table 3). The most commonly reported  
27 TEAEs by system organ classes (SOCs) (25.0% each) were Blood and Lymphatic System Disorders,  
28 Gastrointestinal Disorders, Infections and Infestations, Investigations, Respiratory, Thoracic and  
29 Mediastinal Disorders, and Skin and Subcutaneous Tissue Disorders. Two subjects reported TEAEs that  
30 were deemed moderate in severity and possibly related to study drug treatment: 1 subject experienced a  
31 moderate flare of plaque psoriasis, and the second subject experienced a moderate sore throat. No subjects  
32 reported TEAEs associated with infusion or injection site reactions.

33 Two SAEs were reported. One subject developed a SAE of SARS-CoV-2 infection that was deemed  
34 unrelated to study drug treatment. This subject fully recovered and resumed study treatment. Another  
35 subject developed sepsis while in the hospital that was assessed as possibly related to study drug  
36 treatment, following a non-serious AE of *S. aureus* bacteraemia. This subject fully recovered with  
37 appropriate antibiotic therapy and subsequently discontinued from the study upon use of a prohibited  
38 medication (infliximab) for treatment of GPP.

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## 1 Discussion

2 Imsidolimab appeared generally well-tolerated and demonstrated a rapid and sustained improvement of  
3 symptoms and pustular eruptions in subjects with GPP flare, which was consistent across the clinical  
4 measures assessed. Taken together, these results indicate that imsidolimab may represent a useful  
5 approach to GPP treatment. In addition, an initial IV infusion of imsidolimab followed by monthly SC  
6 dosing, as utilised in this study, is an attractive approach for GPP treatment since rapid control of the flare  
7 and convenient maintenance of the underlying disease is desirable.

8 The onset of action of imsidolimab was rapid following the initial infusion, with responses observed as  
9 early as Day 3 (Figure 2). Continued and consistent improvement through Week 16 was observed with  
10 subsequent monthly SC maintenance dosing. A rapid onset of action and response is particularly desirable  
11 in GPP since patients often experience uncomfortable and potentially life-threatening systemic signs and  
12 symptoms during a pustular flare. The 2 subjects who discontinued the study before Week 4 both had a  
13 “Much Improved” score at their last observation on the CGI scale before study discontinuation.  
14 Reductions in pustules, oedema, and erythema were observed over the course of the study. The mJDA-SI  
15 skin component assessment of BSA covered with erythema with pustules was the most rapidly improved  
16 skin component of GPP following imsidolimab administration (Figure 3). Following imsidolimab  
17 treatment, by Week 4, the mean change from Baseline GPPGA score also improved (decreased)  
18 (Table 2). Impact on subjects’ QoL was assessed by quantifying responses to the patient-reported  
19 outcome measure DLQI. Consistent with the improvements observed in the objective clinical measures of  
20 GPP severity, the subject-reported DLQI measure also improved over time following imsidolimab  
21 treatment (Figure 4). Photographs documented rapid and sustained clinical improvement in disease  
22 severity following imsidolimab treatment for subjects (Figure 5). It is also notable that genotypic testing  
23 indicated homozygous wild-type *IL36RN*, *CARD14*, and *AP1S3* alleles for all 8 of the subjects treated in  
24 this study, which provides additional evidence that the pathogenic role of IL-36 activation in GPP extends  
25 beyond individuals with known *IL36RN* mutations.

26 The dosage utilised in this study, IV imsidolimab 750 mg dose on Day 1, followed by 3 doses of SC  
27 imsidolimab 100 mg administered on Days 29, 57, and 85, was generally well-tolerated. The majority of  
28 TEAEs were mild to moderate in severity and no deaths were reported. No subject discontinued the study  
29 due to a TEAE. Three subjects experienced TEAEs that were assessed as possibly related to study drug  
30 treatment.

31 Studies have shown the importance of IL-36 signalling in GPP, which represents a rational strategy to  
32 control the pathological inflammatory cascade in this condition, and the utility of this therapeutic  
33 approach was further validated by a recently reported placebo-controlled clinical trial of spesolimab.<sup>15-16,</sup>  
34<sup>28, 35</sup> While the GALLOP results provide useful and promising information about the emerging  
35 benefit-risk profile of imsidolimab in GPP, the small size and open-label design of this study are  
36 limitations. Double-blind, placebo-controlled, global multicentre Phase 3 trials of imsidolimab in GPP,  
37 designed to provide a more robust evaluation of this promising approach to GPP treatment, are currently  
38 ongoing (NCT05352893 and NCT05366855).

39 In conclusion, results from this Phase 2 study demonstrated that treatment with imsidolimab produced a  
40 rapid resolution of symptoms and pustular eruptions in subjects with GPP flare. These results suggest that  
41 specifically targeting IL-36 pathway activation, which is increasingly implicated as central to the  
42 pathophysiology of GPP, with a mAb to IL-36R could provide reliable, rapid, and sustained efficacy in  
43 patients experiencing GPP flare. This could potentially revolutionise GPP treatment in a manner similar  
44 to that produced by anti-cytokine therapies for PV.

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7

## 8 **Figure legends**

9 Figure 1 - Study Design

10 Figure 2 - Primary Efficacy Endpoint: Proportion and Number of Subjects Achieving Clinical Response  
11 on the CGI by Study Visit (Full Analysis Set)

12 Figure 3 - Secondary Efficacy Endpoint: Descriptive Statistics of Actual and Change from Baseline for  
13 Percentage Affected Area of Erythema with Pustules, Erythema and Oedema (Full Analysis Set). The  
14 affected BSA of erythema with pustules (A), percent change from Baseline of erythema with pustules (B),  
15 the affected BSA of erythema (C), percent change from Baseline of erythema (D), affected BSA of  
16 oedema (E), and percent change from Baseline of oedema (F).

17 Figure 4 - Secondary Efficacy Endpoint: Total Dermatology Life Quality Index (DLQI) Score by Study  
18 Visit (Full Analysis Set)

19 Figure 5 - Longitudinal Photographs of Two Subjects with GPP Treated with Imsidolimab

20

Demographics	Statistic	Safety Analysis Set (N=8)
Age (Years)	n	8
	Mean (SD)	51.3 (14.9)
	Median	53.0
	Min, Max	29, 69
Gender		
Male	n (%)	4 (50.0)
Female	n (%)	4 (50.0)
Ethnicity		
Hispanic or Latino	n (%)	0
Not Hispanic or Latino	n (%)	8 (100.0)
Race		
American Indian or Alaska Native	n (%)	0 (0.0)
Asian	n (%)	1 (12.5)
Black or African American	n (%)	0 (0.0)
Native Hawaiian or Other Pacific Islander	n (%)	0 (0.0)
White	n (%)	7 (87.5)
Other	n (%)	0 (0.0)
Missing	n (%)	0 (0.0)
Weight (kg) at Baseline	n	8
	Mean (SD)	78.8 (13.3)
	Median	75.0
	Min, Max	60.0, 98.0
Body Mass Index (BMI) (kg/m <sup>2</sup> ) at Baseline	n	8
	Mean (SD)	28.9 (3.4)
	Median	29.2
	Min, Max	24.5, 33.9
mJDA Severity Index Total Score at Baseline <sup>a</sup>	n	8
	Mean (SD)	9.1 (2.8)
	Median	8.5
	Min, Max	6, 14
mJDA Severity Index at Baseline	Mild [n (%)]	1 (12.5)
	Moderate [n (%)]	5 (62.5)
	Severe [n (%)]	2 (25.0)
Skin Lesions Score at Baseline (%)		
Area of erythema with pustules	n	8
	Mean (SD)	23.5 (18.2)
	Median	13.5
	Min, Max	8.0, 55.1
Area of erythema (total)	n	8
	Mean (SD)	50.9 (30.1)
	Median	45.6
	Min, Max	15.0, 91.0
Area of oedema	n	8
	Mean (SD)	33.8 (18.8)
	Median	27.5
	Min, Max	11.0, 60.0
GPPPGA Score at Baseline	Clear [n (%)]	0 (0.0)
	Almost Clear [n (%)]	0 (0.0)

Demographics	Statistic	Safety Analysis Set (N=8)
	Mild [n (%)]	0 (0.0)
	Moderate [n (%)]	1 (12.5)
	Severe [n (%)]	4 (50.0)
Number of years since GPP diagnosis	n	8
	Mean (SD)	4.0 (6.5)
	Median	1.1
	Min, Max	0.0, 19.0
PASI Score at Baseline <sup>b</sup>	n	5
	Mean (SD)	21.18 (16.768)
<p>Age is relative to informed consent. If the date of birth is partial, age is calculated using the available parts of the date. If the Medical History start date of GPP is partial, number of years since GPP diagnosis is calculated using the available parts of the date. "Baseline" is defined as the last observed value of the parameter of interest prior to the first intake of study drug.</p> <p>Abbreviations: GPP = generalised pustular psoriasis; GPPPGA = Generalised Pustular Psoriasis Physician's Global Assessment; mJDA = modified Japanese Dermatological Association; N = total number of subjects in the safety analysis set; n = number of subjects with available data; SD = standard deviation.</p> <p><sup>a</sup> The study population (N=8) includes 1 patient that did not meet the Inclusion Criterion JDA severity index total score &gt;6 or present with active pustules and erythema accounting for at least 10% of BSA. This was considered a non-important protocol deviation.</p> <p><sup>b</sup> Change in PASI score from Baseline was used to assess response to imsidolimab treatment in subjects with concomitant plaque psoriasis.</p>		

1 Table 1 - Demography and Baseline Characteristics (Safety Analysis Set)

2

Visit Statistic	Total (N=5)		
	Result	Change from Baseline	% Change from Baseline
<b>Baseline</b>			
n	5	N/A	N/A
GPPPGA Mean (SD)	3.8 (0.45)	N/A	N/A
95% CI	(3.24, 4.36)	N/A	N/A
Median	4	N/A	N/A
Min, Max	3, 4	N/A	N/A
<b>Week 4</b>			
n	4	4	4
GPPPGA Mean (SD)	1.5 (0.58)	-2.5 (0.58)	-62.5 (14.4)
95% CI	(0.58, 2.42)	(-3.42, -1.58)	(-85.5, -39.5)
Median	1.5	-2.5	-62.5
Min, Max	1, 2	-3, -2	-75.0, -50.0
<b>Week 16</b>			
n	4	4	4
GPPPGA Mean (SD)	1.0 (0.82)	-3.0 (0.82)	-75.0 (20.4)
95% CI	(-0.30, 2.30)	(-4.30, -1.70)	(-107.5, -42.5)
Median	1	-3	-75
Min, Max	0, 2	-4, -2	-100.0, -50.0
<p>0 = Clear: Normal skin or post - inflammatory hyperpigmentation, no visible pustules, no scaling or crusting; 1 = Almost Clear: Faint, diffuse pink or slight red erythema, low density occasional small discrete pustules (noncoalescent), superficial focal scaling or crusting restricted to periphery of lesions; 2 = Mild: Light red erythema, moderate density grouped discrete small pustules (noncoalescent), predominantly fine scaling or crusting; 3 = Moderate: Bright red erythema, high density pustules with some coalescence, moderate scaling or crusting covering most or all lesions; 4 = Severe: Deep fiery red erythema, very high density pustules with pustular lakes, severe scaling or crusting covering most or all lesions.</p> <p>Baseline refers to the last non-missing measurement taken prior to the reference start date (including unscheduled assessments). Abbreviations: CI = confidence interval; GPPPGA = Generalised Pustular Psoriasis Physician's Global Assessment; N = total number of subjects with GPPPGA at Baseline in the Full Analysis Set; n = number of subjects with available data; N/A = not applicable; PASI = Psoriasis Area Severity Index; SD = standard deviation.</p>			

1 Table 2 - Secondary Efficacy Endpoint: Descriptive Statistics of Actual and Change from Baseline for  
2 GPPPGA Scores of Subjects with GPPPGA at Baseline (Full Analysis Set for Subjects with GPPPGA at  
3 Baseline)

4

Characteristic	Total (N=8) n (%)
<b>Subjects with at least 1:</b>	
TEAE	6 (75.0)
Related or Possibly Related TEAE	3 (37.5)
Severe TEAE	1 (12.5)
Serious TEAE	2 (25.0)
TEAE leading to discontinuation of study drug	1 (12.5)
TEAE leading to study discontinuation	0 (0.0)
Infusion-related TEAE or injection site reaction	0 (0.0)
<b>MedDRA System Organ Class Preferred Term</b>	
<b>Blood and lymphatic system disorders</b>	<b>2 (25.0)</b>
Anaemia	1 (12.5)
Lymphadenopathy	1 (12.5)
<b>Gastrointestinal disorders</b>	<b>2 (25.0)</b>
Nausea	1 (12.5)
Toothache	1 (12.5)
Vomiting	1 (12.5)
<b>Infections and infestations</b>	<b>2 (25.0)</b>
COVID-19	1 (12.5)
Nosocomial infection	1 (12.5)
<b>Investigations</b>	<b>2 (25.0)</b>
Blood folate decreased	1 (12.5)
Blood glucose increased	1 (12.5)
C-reactive protein increased	1 (12.5)
White blood cell count increased	1 (12.5)
<b>Respiratory, thoracic and mediastinal disorders</b>	<b>2 (25.0)</b>
Oropharyngeal pain	2 (25.0)
<b>Skin and subcutaneous tissue disorders</b>	<b>2 (25.0)</b>
Psoriasis	1 (12.5)
Skin haemorrhage	1 (12.5)
Abbreviations: COVID-19 = coronavirus disease of 2019; MedDRA = Medical Dictionary for Regulatory Activities; n = number of subjects with available data; N = total number of subjects in the safety analysis set; TEAE = treatment-emergent adverse event.	

1 Table 3. Overview of Treatment-Emergent Adverse Events (Safety Analysis Set)

2

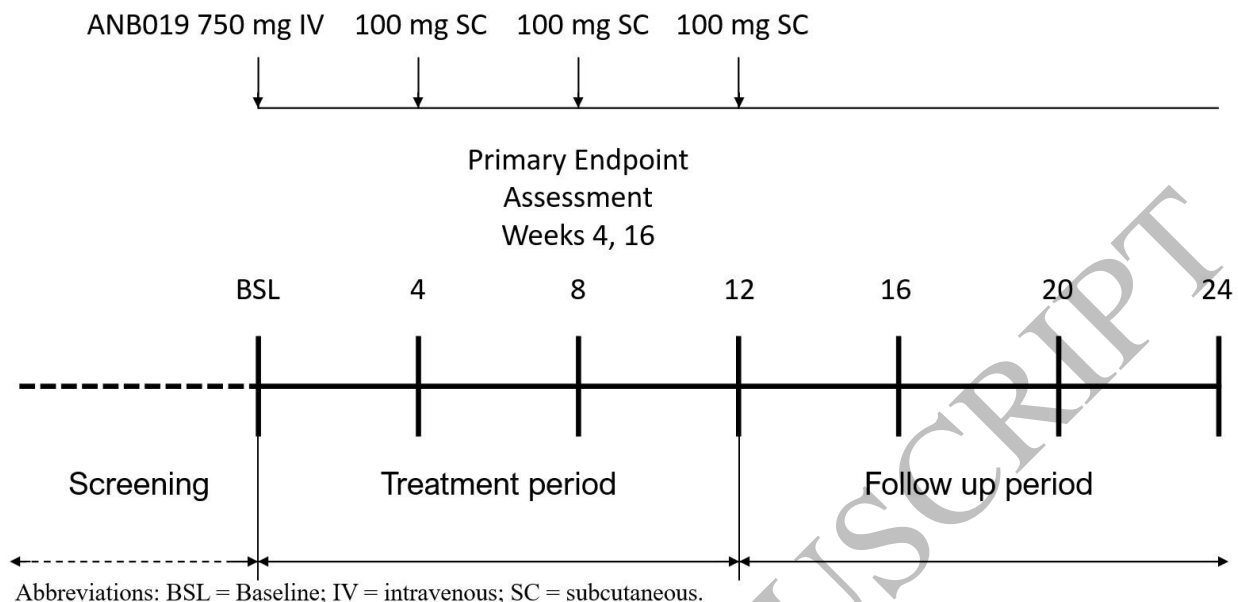


Figure 1  
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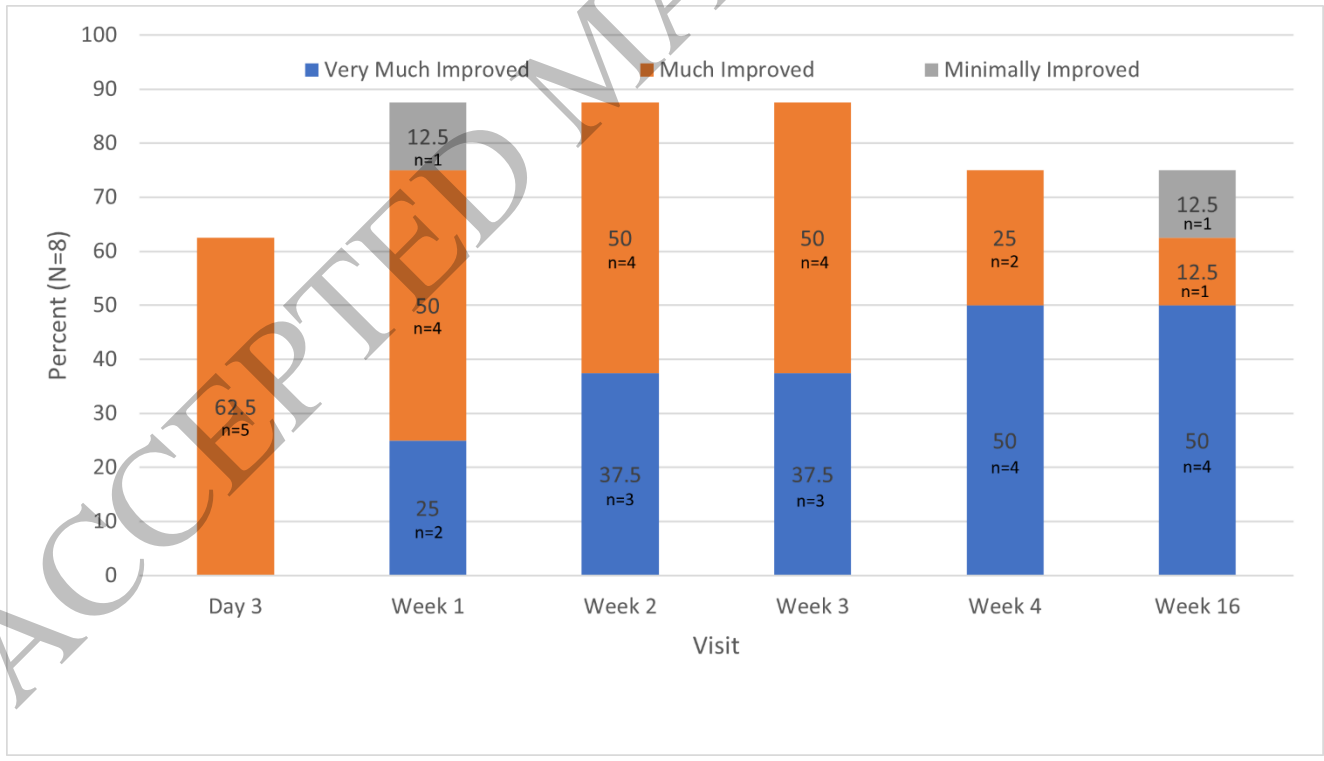


Figure 2  
174x99 mm (x DPI)

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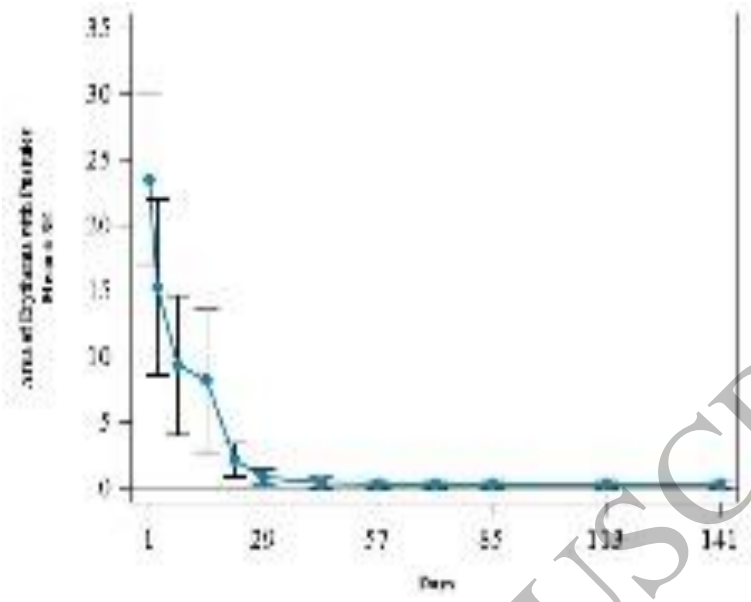


Figure 3  
26x18 mm (x DPI)

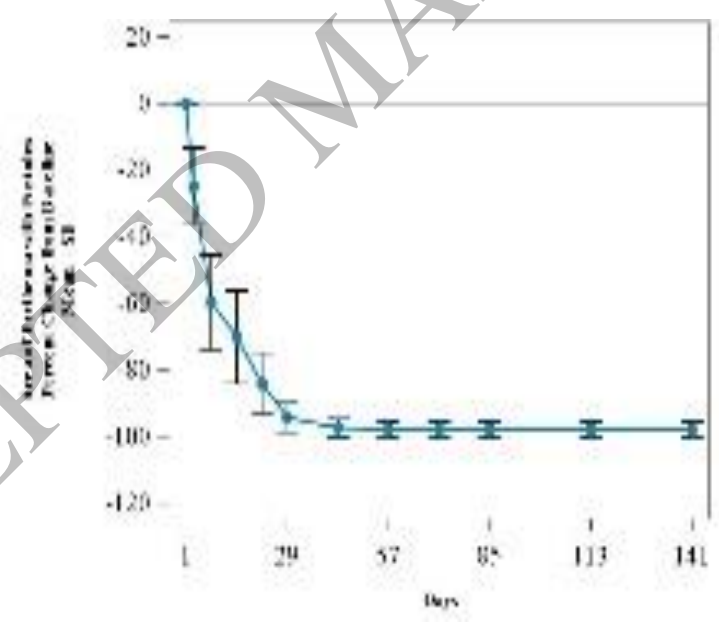


Figure 4  
26x17 mm (x DPI)

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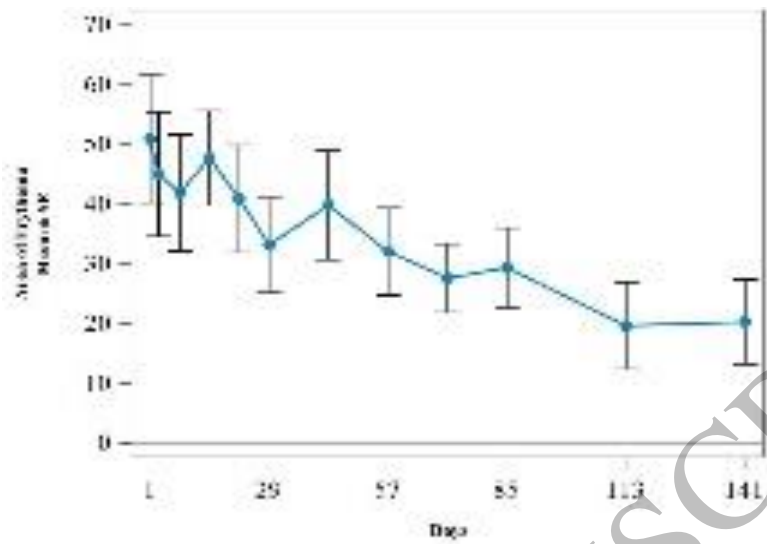


Figure 5  
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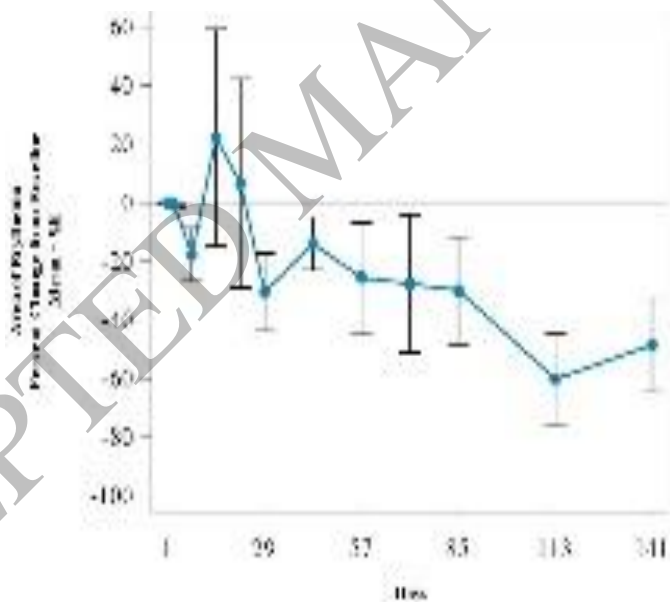


Figure 6  
26x18 mm (x DPI)

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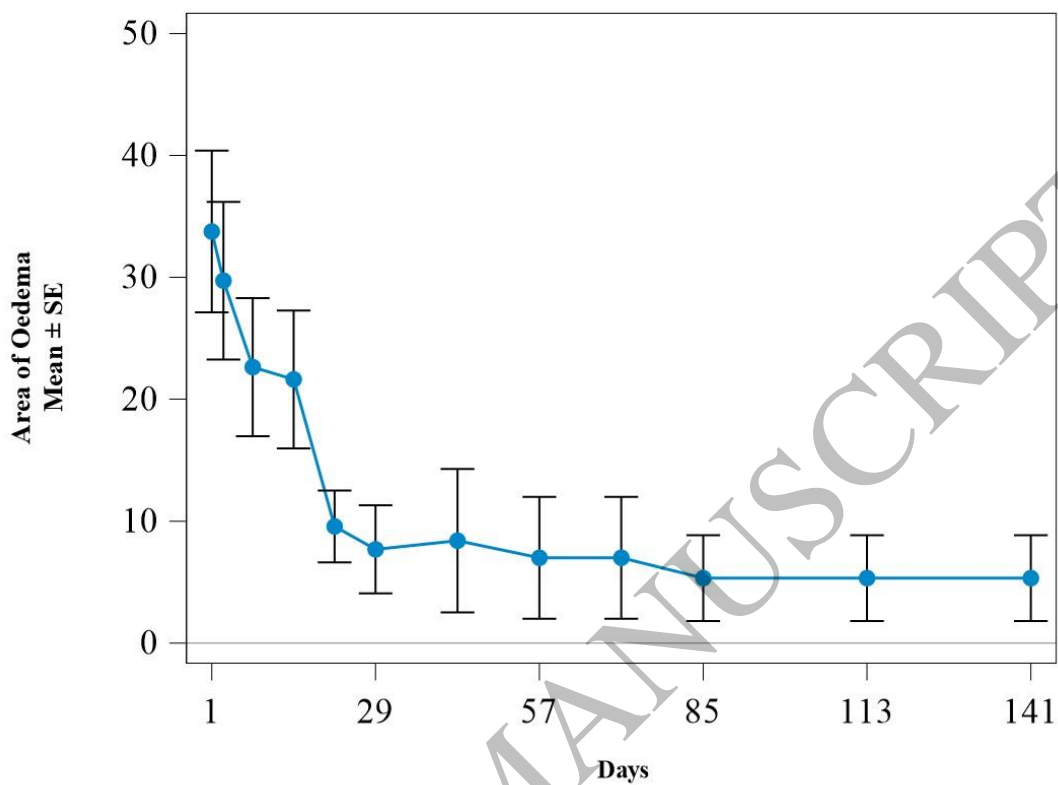


Figure 7  
217x148 mm (x DPI)

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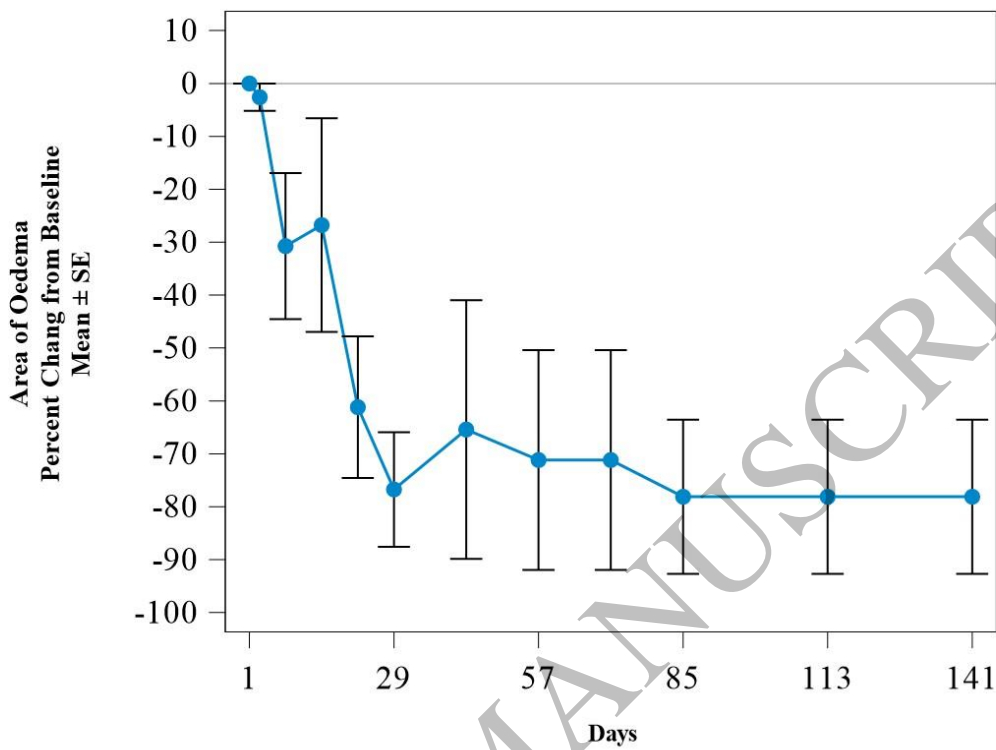


Figure 8  
207x150 mm (x DPI)

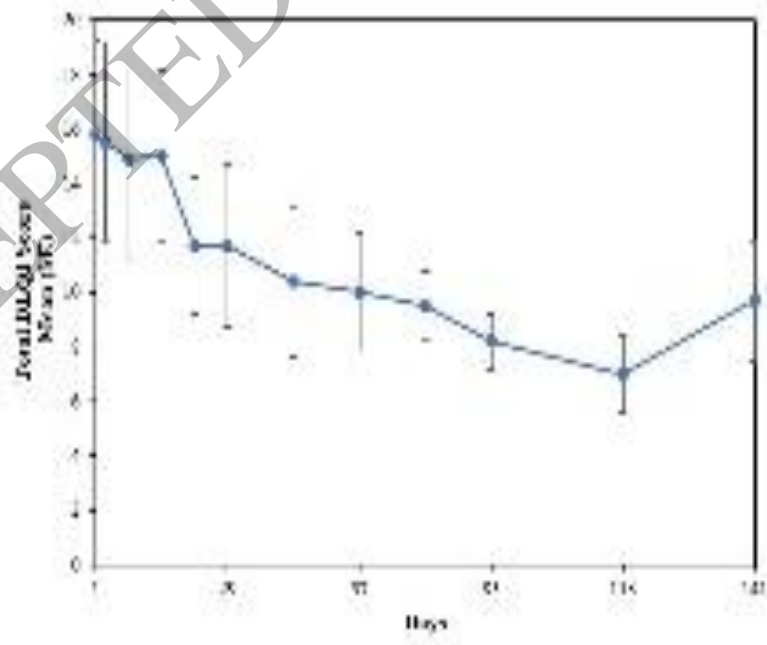
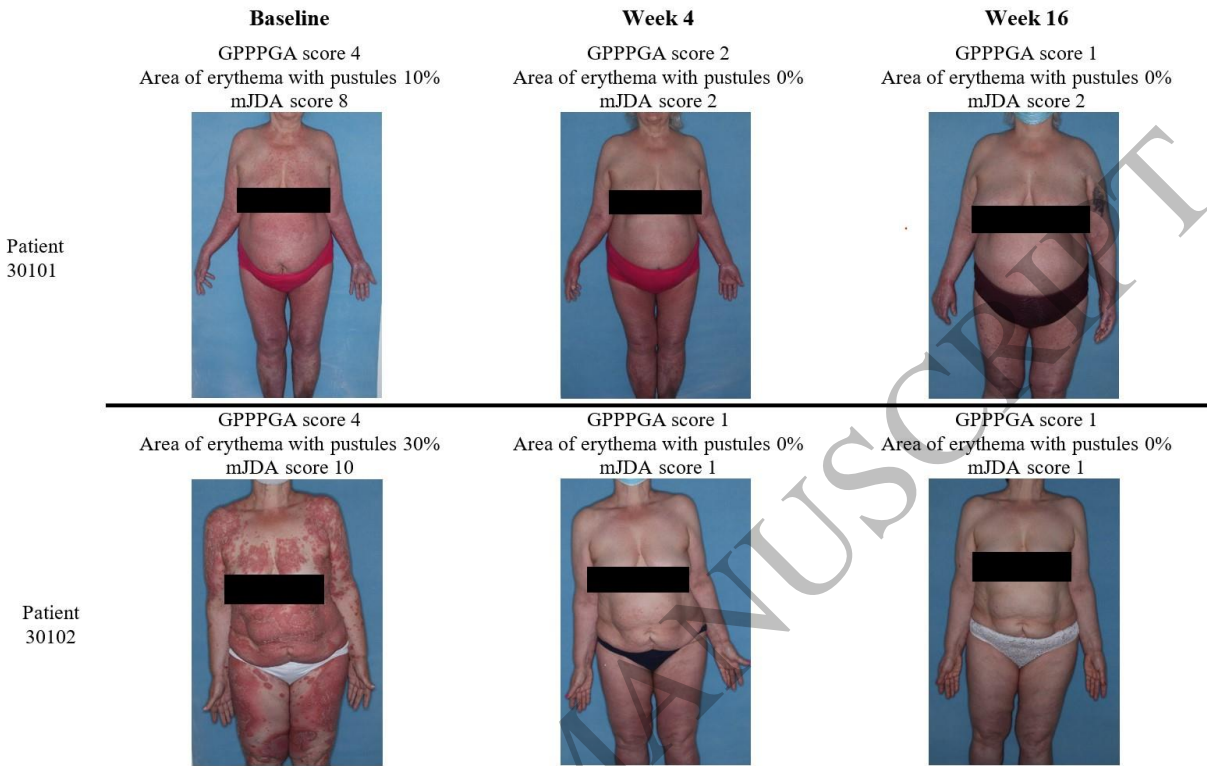


Figure 9  
25x17 mm (x DPI)

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Figure 10  
282x178 mm ( x DPI)

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