

APEX: Guselkumab Response and Inhibition of Structural Damage Progression in Active Psoriatic Arthritis by Participant Baseline Characteristics

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Background

Guselkumab (GUS), a fully-human monoclonal antibody able to bind to the CD64-receptor and simultaneously inhibit the IL-23p19 subunit, is approved for moderate-to-severe plaque psoriasis, active psoriatic arthritis (PsA), and moderately-to-severely active Crohn's disease and ulcerative colitis

The ongoing phase 3b, randomized, double-blind, placebo (PBO)-controlled **APEX study (NCT04882098)** is further evaluating GUS effects on clinical and radiographic progression outcomes in **participants (pts) with active and erosive PsA**

APEX met primary (American College of Rheumatology ≥20% improvement [ACR20]) and major secondary (PsA-modified van der Heijde-Sharp [vdH-S] score change from baseline) endpoints, such that **GUS Q4W and Q8W demonstrated significantly higher rates of clinical improvement and significant inhibition of structural damage progression vs PBO at Week(W)24¹**

Objective

Evaluate consistency in GUS clinical response and radiographic progression inhibition across subgroups of pts of high clinical interest

Q4W/Q8W=every 4/8 weeks

Results

Similar proportions of pts comprised baseline characteristic subgroups across treatment arms

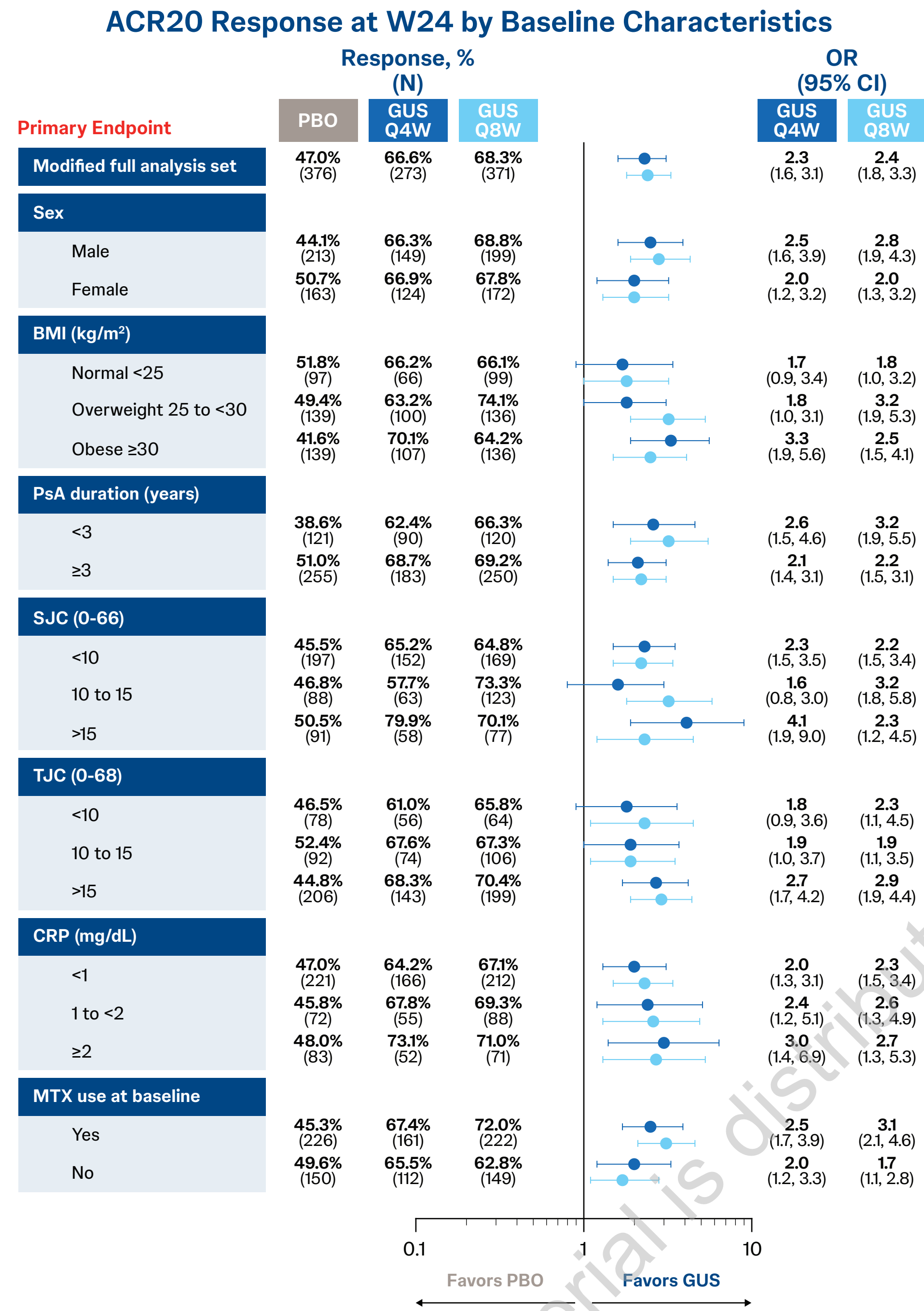
- Pts had active and erosive PsA: median disease duration=5 years, SJC=9, TJC=16, and CRP=0.8 mg/dL

Modified full analysis set*	PBO N=376	GUS Q4W N=273	GUS Q8W N=371	Total N=1020
Sex				
Male	57%	55%	54%	55%
Female	43%	45%	46%	45%
BMI, kg/m ²				
Normal <25	26%	24%	27%	26%
Overweight ≥25 to <30	37%	37%	37%	37%
Obese ≥30	37%	39%	37%	37%
PsA disease duration, yrs				
<3	32%	33%	32%	32%
≥3	68%	67%	68%	68%
SJC (0-66)				
<10	52%	56%	46%	51%
10 to 15	23%	23%	33%	27%
>15	24%	21%	21%	22%
TJC (0-68)				
<10	21%	21%	17%	19%
10 to 15	24%	27%	29%	27%
>15	55%	52%	54%	54%
CRP, mg/dL				
<1	59%	61%	57%	59%
1 to <2	19%	20%	24%	21%
≥2	22%	19%	19%	20%
MTX use at baseline				
Yes	60%	59%	60%	60%
No	40%	41%	40%	40%

*All randomized pts except those from Ukraine sites rendered unable to support key study operations due to major disruptions (N=1020).

GUS treatment effect on joint disease activity was consistent across subgroups

- Aligned with primary endpoint results, GUS-treated pts had approximately 2- to 4-times higher odds of achieving ACR20 response than PBO-treated pts



CI=confidence interval, OR=odds ratio.

APEX Study Design and Analysis Methods

Inclusion Criteria

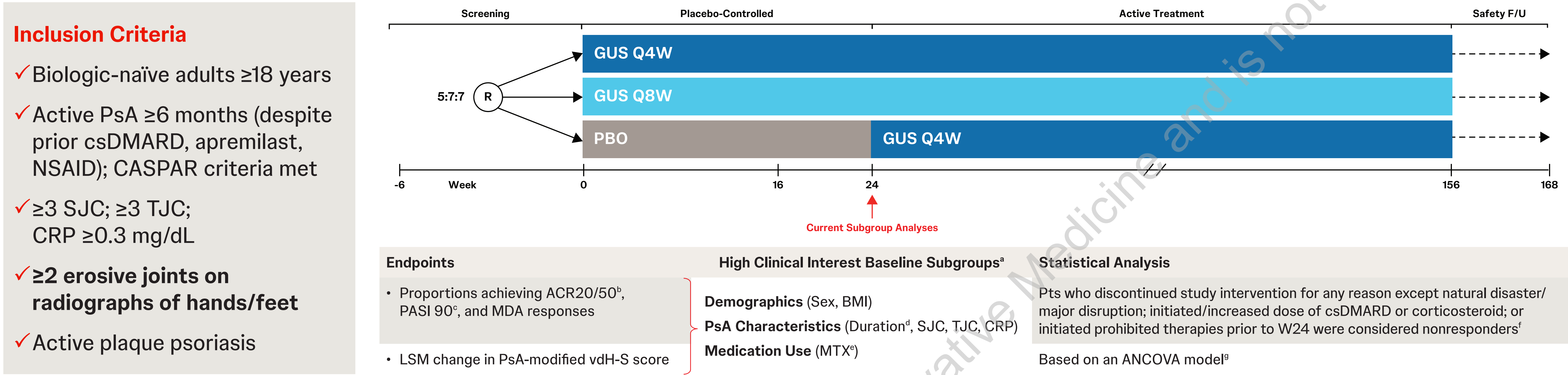
- ✓ Biologic-naïve adults ≥18 years

- ✓ Active PsA ≥6 months (despite prior csDMARD, apremilast, NSAID); CASPAR criteria met

- ✓ ≥3 SJC; ≥3 TJC; CRP ≥0.3 mg/dL

- ✓ ≥2 erosive joints on radiographs of hands/feet

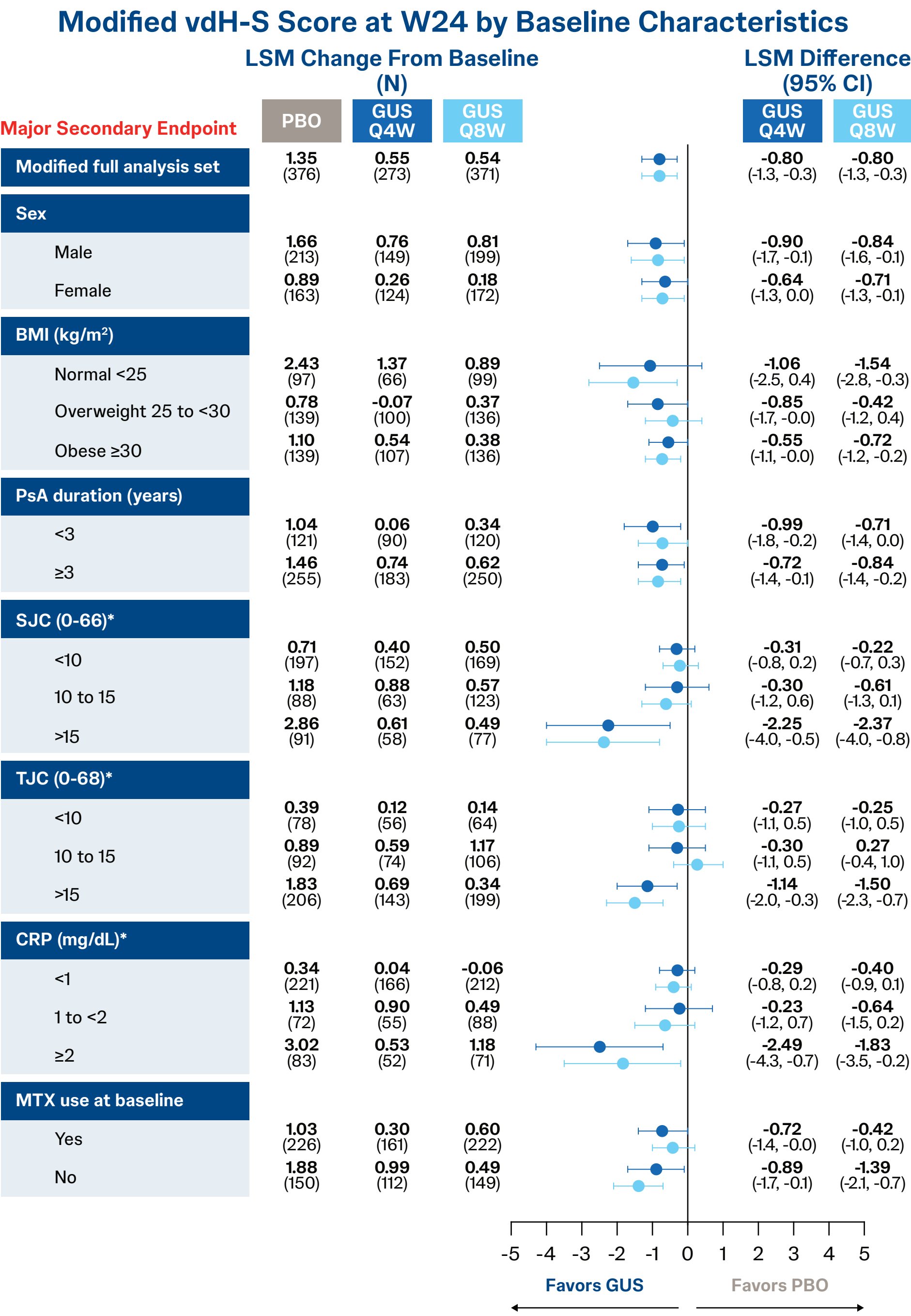
- ✓ Active plaque psoriasis



^a29 subgroups were predefined to evaluate treatment consistency over baseline demographics (n=7), disease characteristics (n=12), and medication use (n=5); those of high clinical interest are reported here. ^bAverage proportion of pts over 200 MI datasets. ^cAmong pts who had ≥3% BSA psoriatic involvement and an IGA score of ≥2 (mild) at baseline. ^dPredefined PsA duration subgroups categories were <1y to <3y/≥3 years, however, <3y/≥3 presented due to small sample size in <1 year category. ^ePredefined as csDMARD use at baseline, however, MTX component presented separately based on MTX representing the majority of csDMARD use at baseline. ^fData impacted by, or missing due to, natural disaster/major disruption were imputed using MI (ACR20/50) or were not explicitly imputed (PASI 90/MDA); other missing data were imputed using NRI. ^gExploratory model variables: baseline vdH-S score, treatment group, and randomization stratification level; data impacted by natural disaster/major disruption and missing data imputed using MI. ^hANCOVA=analysis of covariance, ⁱBMI=body mass index, ^jBSA=body surface area, ^kCASPAR=CIAASignification criteria for Psoriatic Arthritis, ^lCRP=C-reactive protein, ^mcsDMARD=conventional synthetic disease modifying antirheumatic drug, ⁿFU=follow-up, ^oIGA=Investigator's Global Assessment, ^pLSM=least squares mean, ^qMDA=minimal disease activity, ^rMI=multiple imputation, ^sMTX=methotrexate, ^tNRI=nonresponder imputation, ^uNSAID=nonsteroidal anti-inflammatory drug, ^vPASI 90=90% improvement in Psoriasis Area and Severity Index, ^wR=randomization, ^xSJC=swollen joint count, ^yTJC=tender joint count.

Significant inhibition of structural damage progression with GUS was generally consistent across baseline pt subgroups

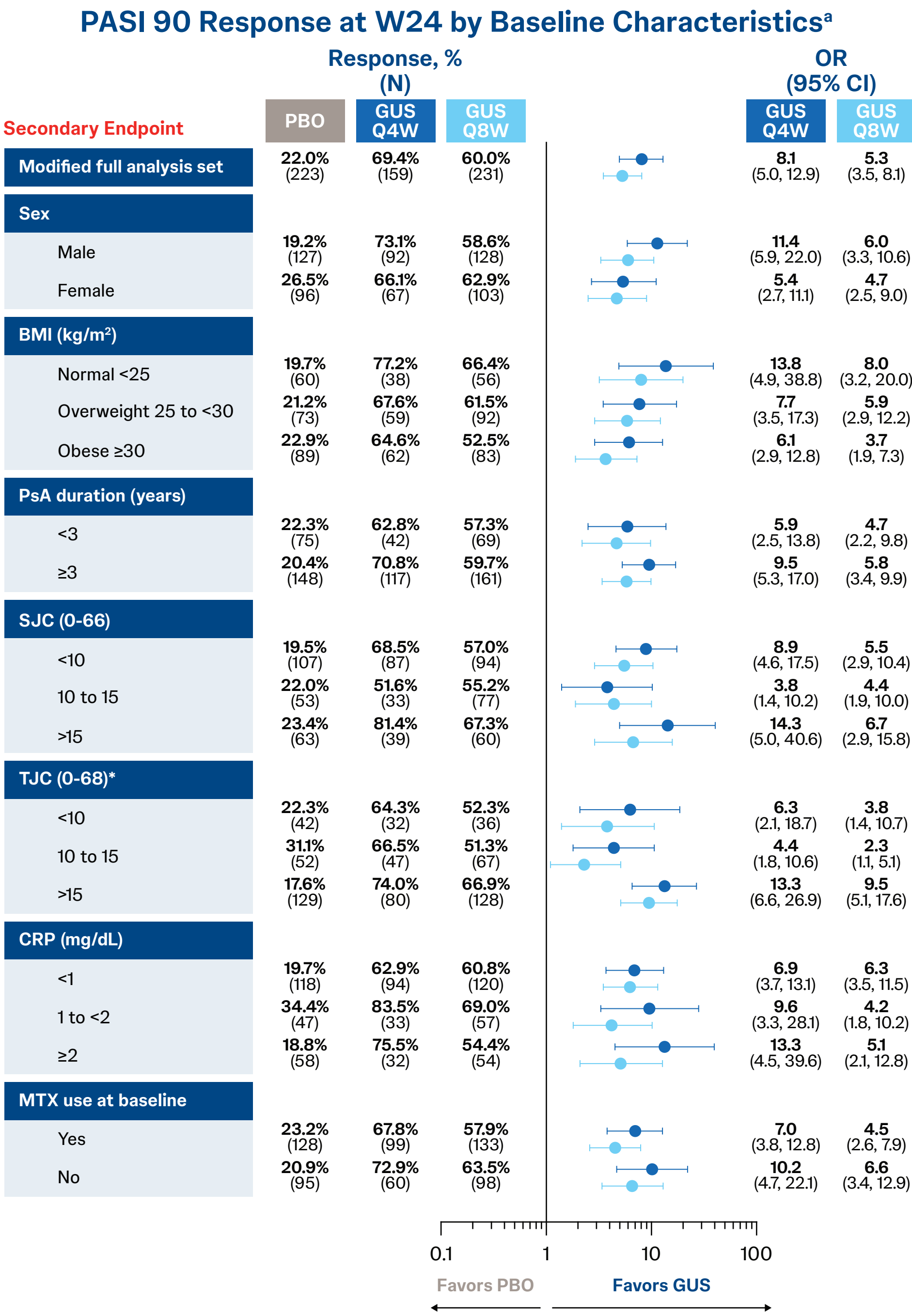
- Concordant with known risk factors, PBO-treated pts with SJC >15 & CRP ≥2 mg/dL exhibited notably higher degrees of structural damage progression, leading to even more robust GUS effects in these groups



*Interaction p-value <0.05 for SJC GUS Q4W and Q8W; TJC GUS Q8W; CRP GUS Q4W.

Treatment effect of GUS on achieving PASI 90 response was generally consistent across subgroups

- Comparable to overall PASI 90 results, GUS-treated pts had approximately 2- to 14-times higher odds of achieving PASI 90 response than PBO-treated pts



^aAmong pts who had ≥3% BSA psoriatic involvement and an IGA score of ≥2 (mild) at baseline. *Interaction p-value <0.05 for TJC GUS Q8W.

GUS effect on achievement of the MDA composite endpoint remained consistent across subgroups

- Aligned with overall MDA results, GUS-treated pts had approximately 2- to 5-times higher odds of achieving MDA than PBO-treated pts

