

HEALTH-RELATED QUALITY OF LIFE WITH GUSELKUMAB INDUCTION AND MAINTENANCE THERAPY AS MEASURED BY PROMIS-29: RESULTS THROUGH WEEK 48 OF PHASE 2 GALAXI 1 STUDY

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BACKGROUND/OBJECTIVE

- Patients with moderate to severe Crohn's disease experience GI as well as systemic symptoms that negatively impact their health-related quality of life (HRQL).
- In GALAXI-1, HRQL was evaluated using the Patient-Reported Outcomes Measurement Information System (PROMIS)-29
- Here we report HRQL outcomes evaluated using the PROMIS-29 scores

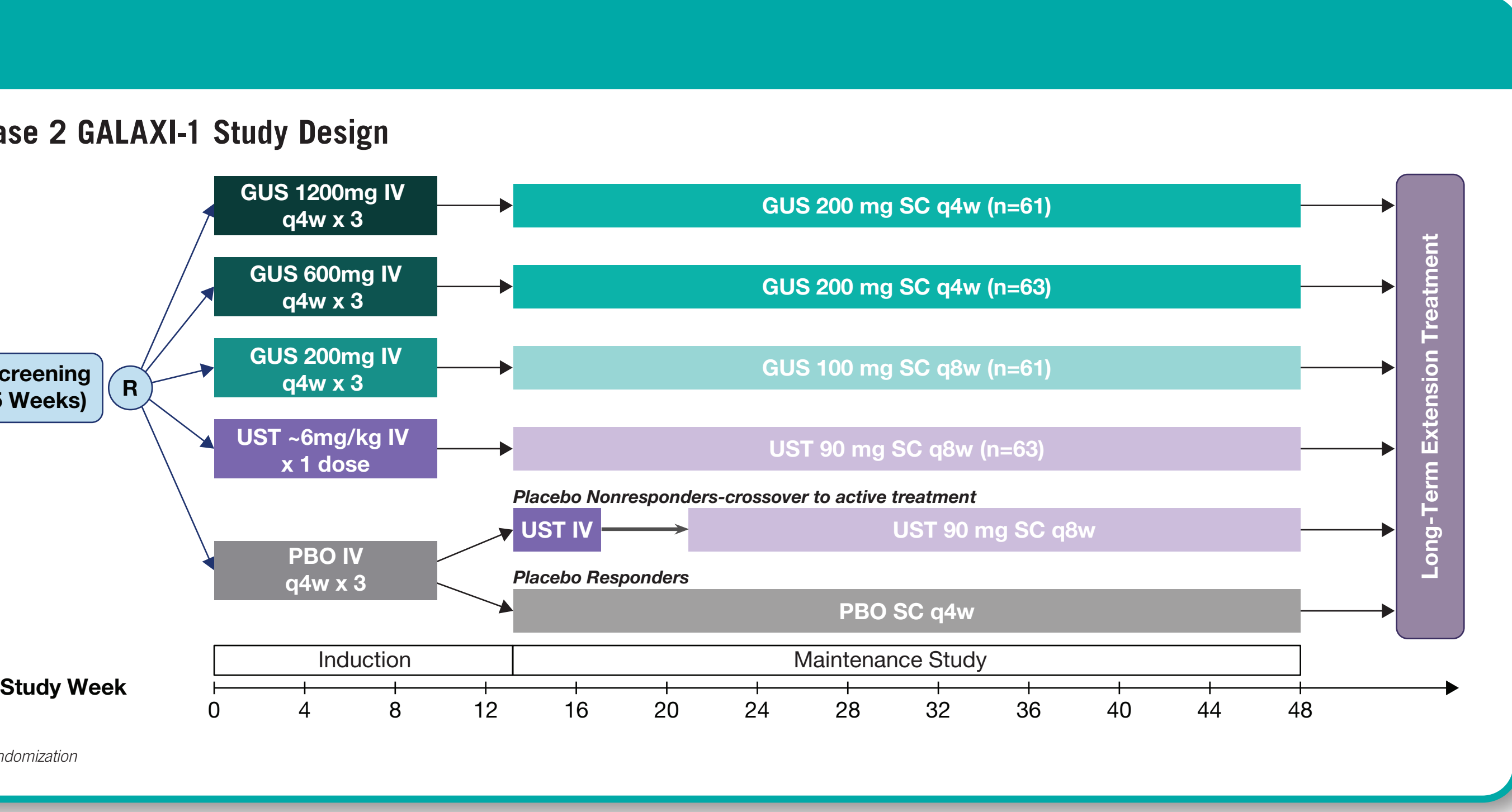
DEFINITIONS OF INDUCTION RESPONSE

- GALAXI-1 is a phase 2, double-blind, placebo-controlled study of guselkumab (GUS), a selective IL-23 antagonist, for the treatment of patients with moderately to severely active Crohn's disease who had inadequate response or intolerance to conventional therapies (corticosteroid, immunosuppressant) and/or biologics (tumor necrosis factor antagonist, vedolizumab)
- PROMIS-29 consists of 7 domains and a pain intensity 0-10 numeric rating scale:
 - depression
 - anxiety
 - physical function (higher scores indicate better outcomes)
 - pain interference
 - fatigue
 - sleep disturbance
 - social participation (higher scores indicate better outcomes)
- The raw score of each domain is converted into a standardized T-score with a general population mean of 50 and standard deviation (SD) of 10. Unless otherwise noted, lower scores indicate better outcomes
- Clinically meaningful improvement is defined as ≥ 5 -point (or 1/2 SD of population) improvement in each domain T-score and ≥ 3 -point improvement in pain numeric rating scale score.

METHODS

Statistical Methods

- Least squares (LS) mean changes from baseline were evaluated using two different models:
 - Weeks 8 and 12: LS mean changes from baseline and p-values for GUS vs PBO were based on a mixed-effect model repeated measure (MMRM) analysis of GUS, ustekinumab (UST) and placebo (PBO), including change from baseline in PROMIS-29 domain scores as the response and treatment group, visit, baseline PROMIS-29 domain score, history of inadequate response/intolerance to biologics status (yes, no), baseline CDAI stratification (≤ 300 , >300), an interaction term of visit with treatment group and an interaction term of visit with baseline PROMIS-29 domain score as explanatory variables.
 - Weeks 24 and 48: LS mean changes from baseline were based on an MMRM analysis of GUS and UST including all terms in the model as defined above.
- Patients who had a prohibited change in concomitant Crohn's disease medication, a Crohn's disease-related surgery, or discontinued study agent due to lack of efficacy or an adverse event of worsening Crohn's disease prior to the designated analysis timepoint had their baseline value carried forward from that timepoint onwards (for change from baseline analysis) or were considered not to have achieved the endpoint (for clinically meaningful improvement analysis). Patients who had discontinued study agent due to any other reasons prior to the designated analysis timepoint had their observed data used from that timepoint onwards.
- Patients who had insufficient data to calculate PROMIS-29 domain score at the designated analysis timepoint did not have their missing data imputed.
- P-values presented are for GUS vs PBO. UST was included as a reference arm, there were no formal comparisons between UST and PBO or UST and GUS.



CONCLUSIONS

- Patients with moderate to severe Crohn's disease experience impaired HRQL, with PROMIS-29 scores in each domain worse than scores for the general population.
- Induction and maintenance treatment with GUS was effective in improving HRQL as measured by PROMIS-29 domains in patients with moderately to severely active Crohn's disease.
- Patients treated with GUS had greater improvement in all 7 PROMIS-29 domain scores at Wk12 compared with PBO.
- The improvements in each of the 7 domains, as well as pain severity, at Wk 12 were maintained through Wk 48 in GUS-treated patients.

RESULTS

- Baseline demographics were generally similar among treatment groups
- Mean baseline PROMIS-29 domain scores were similar between treatment groups with functional domain scores <50 and symptom domain scores >50 , indicating impaired HRQL

Baseline Demographics and Disease Characteristics

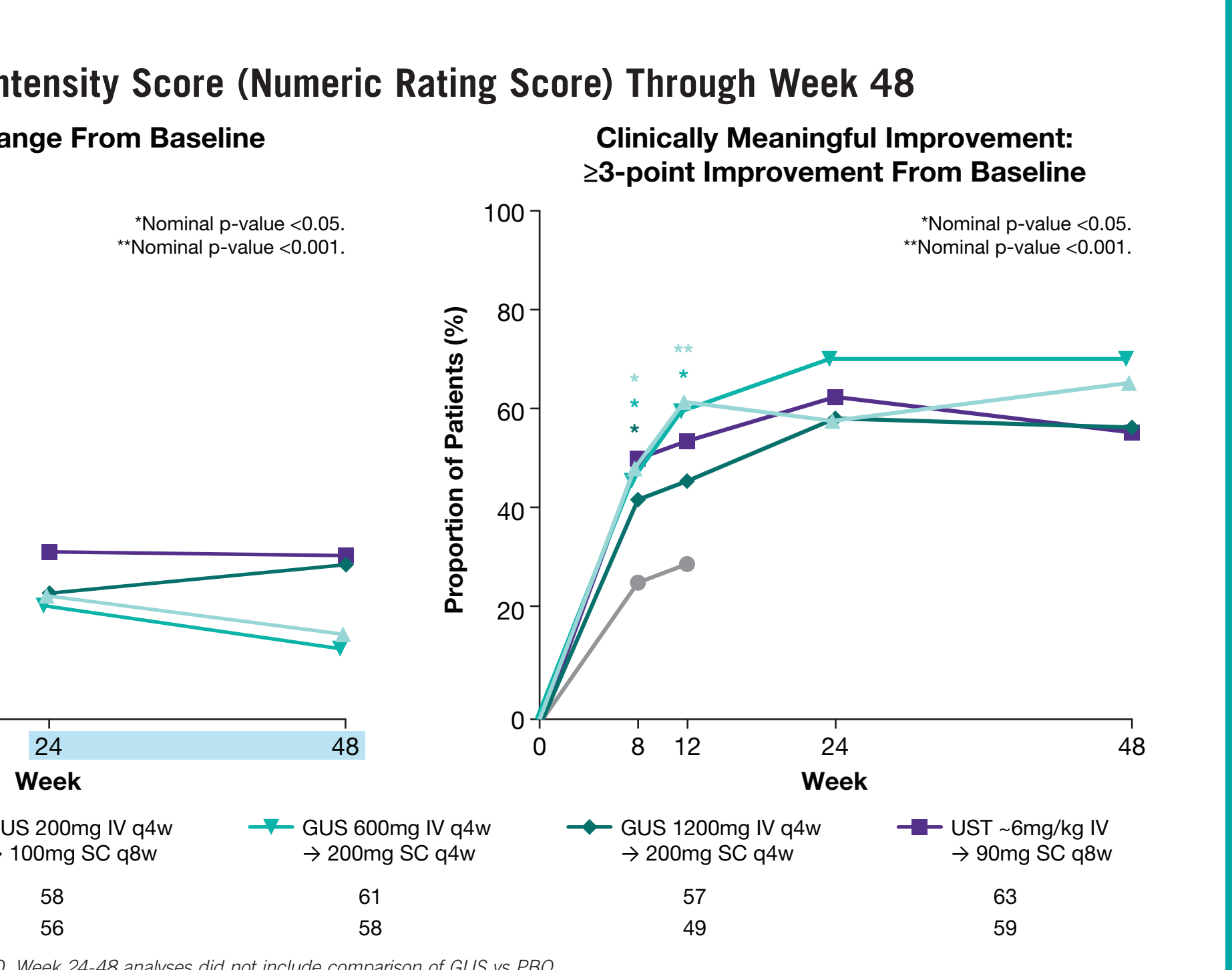
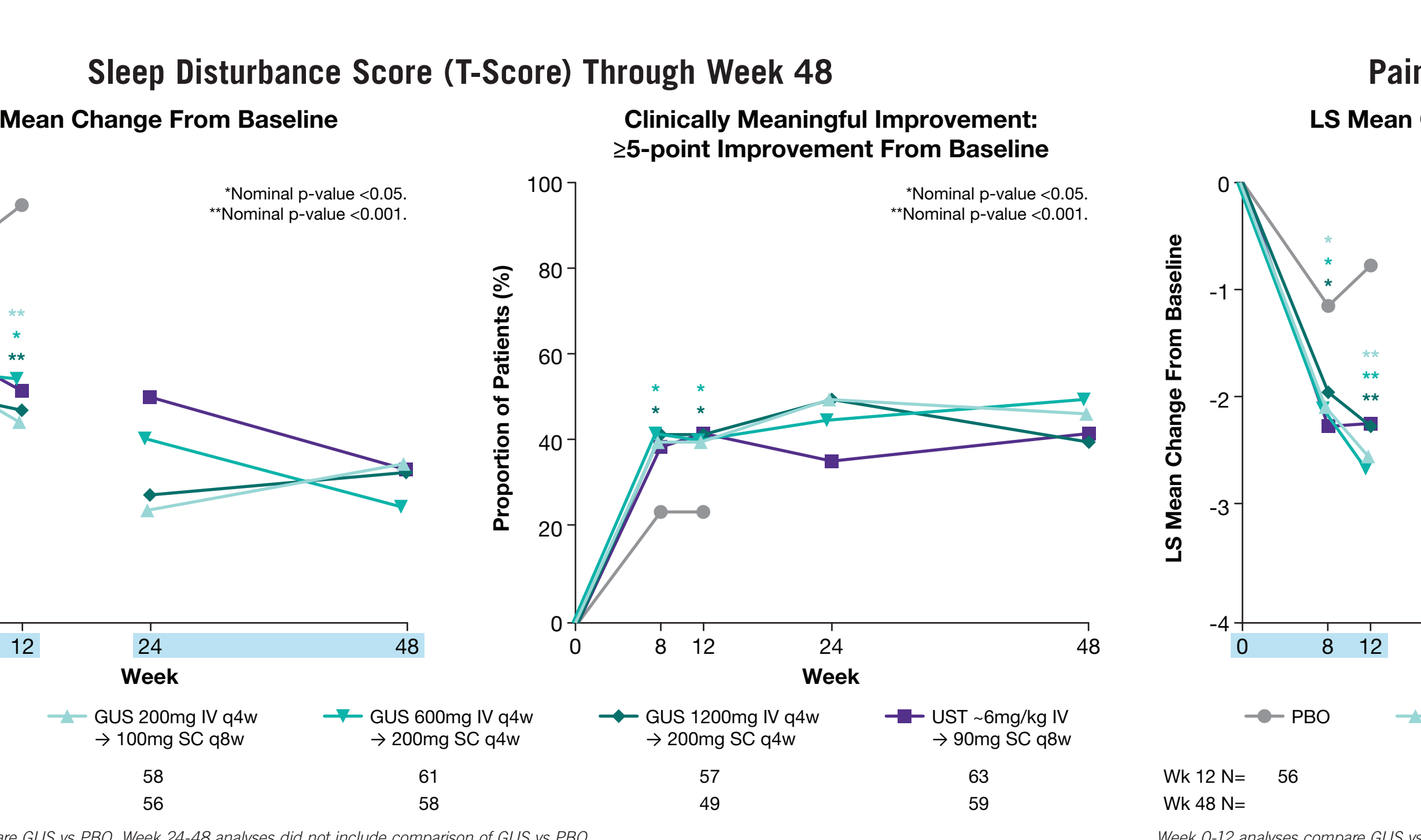
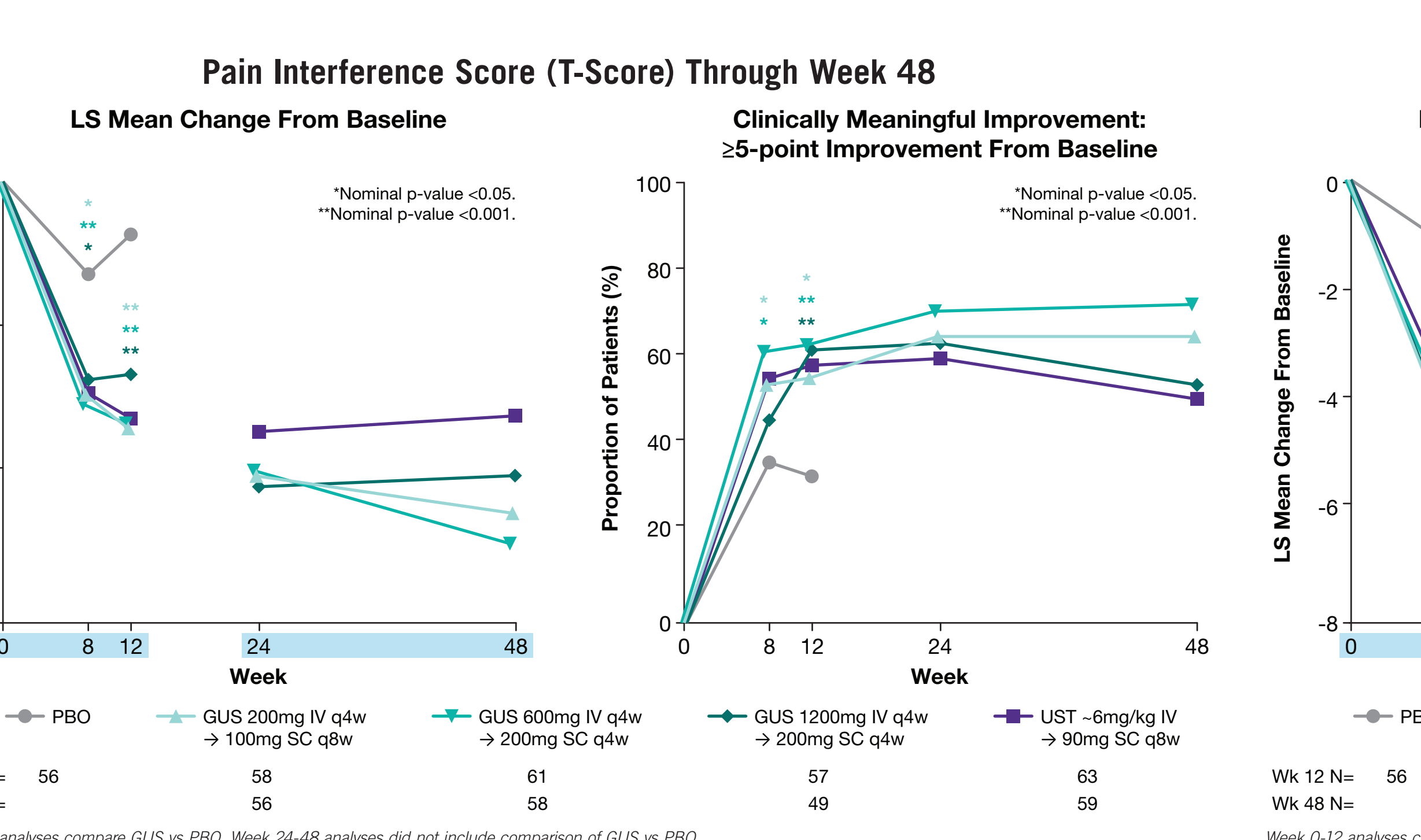
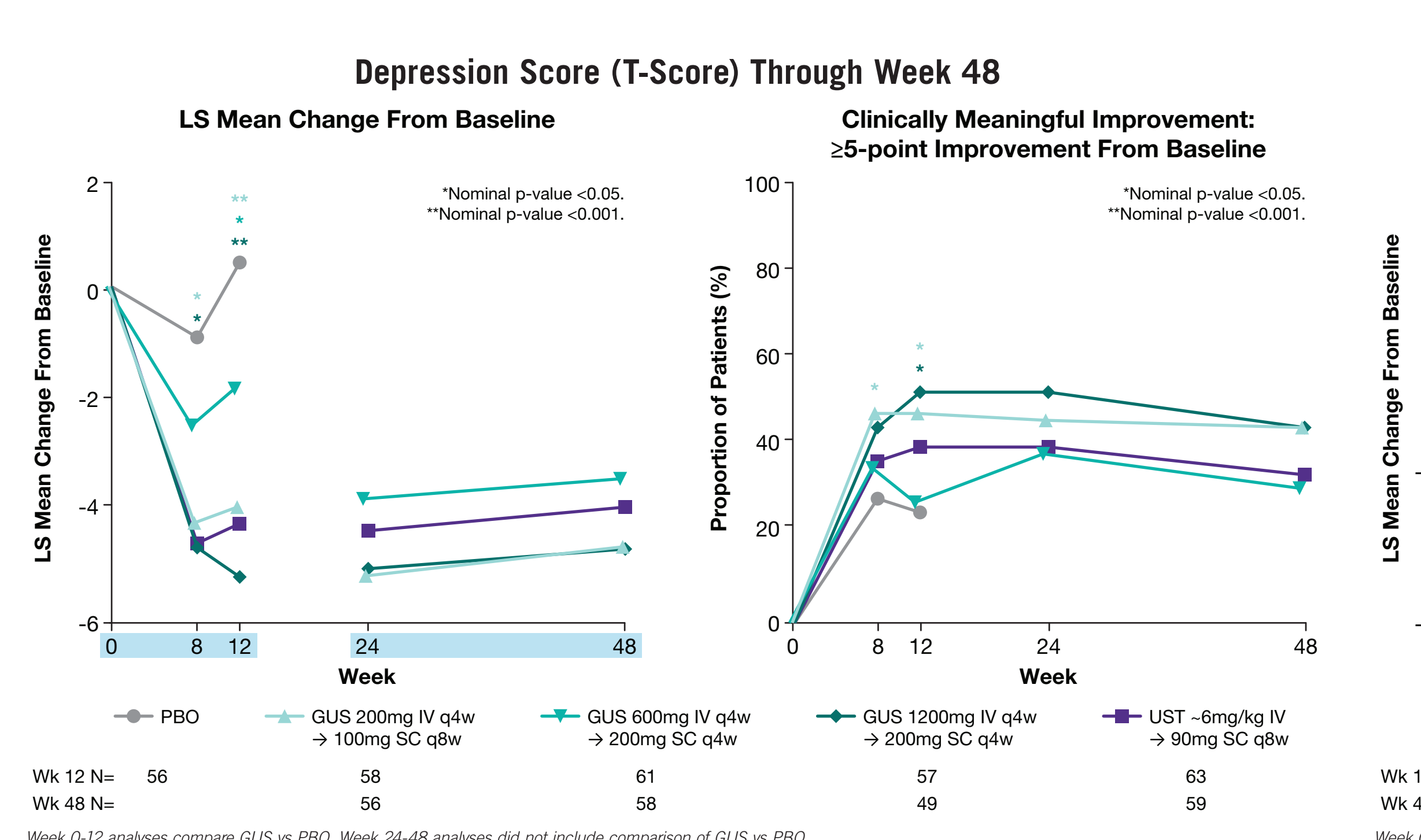
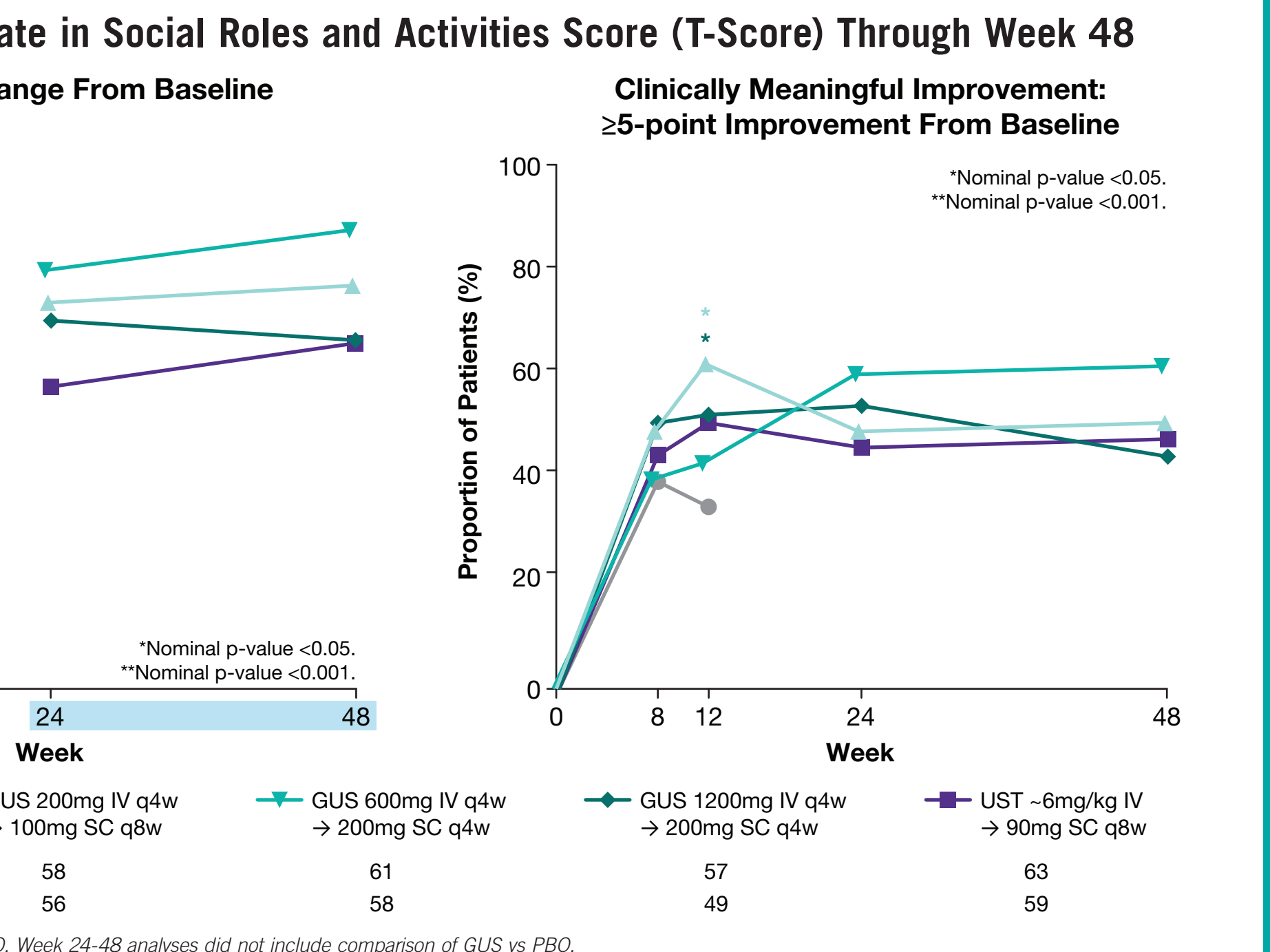
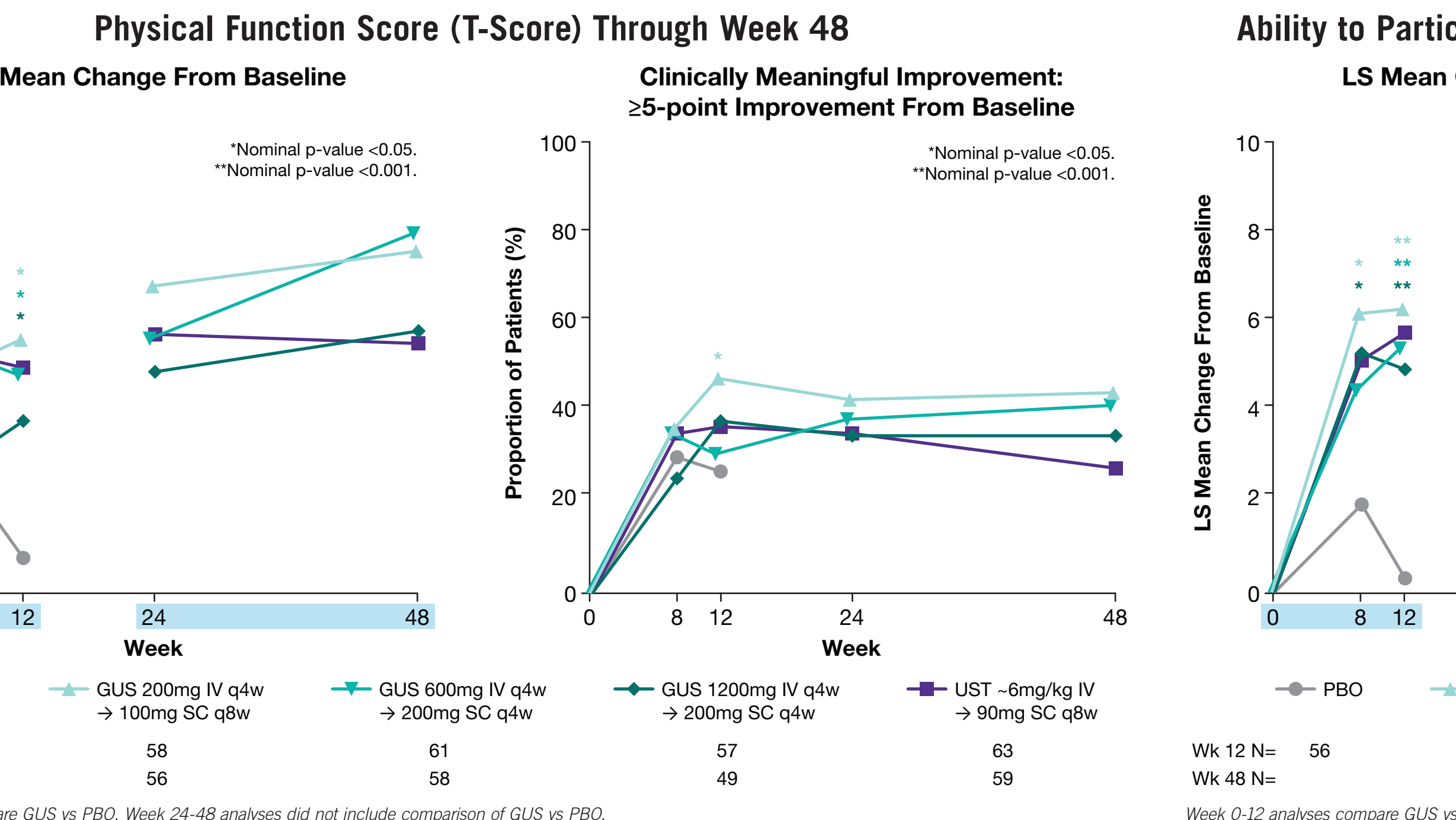
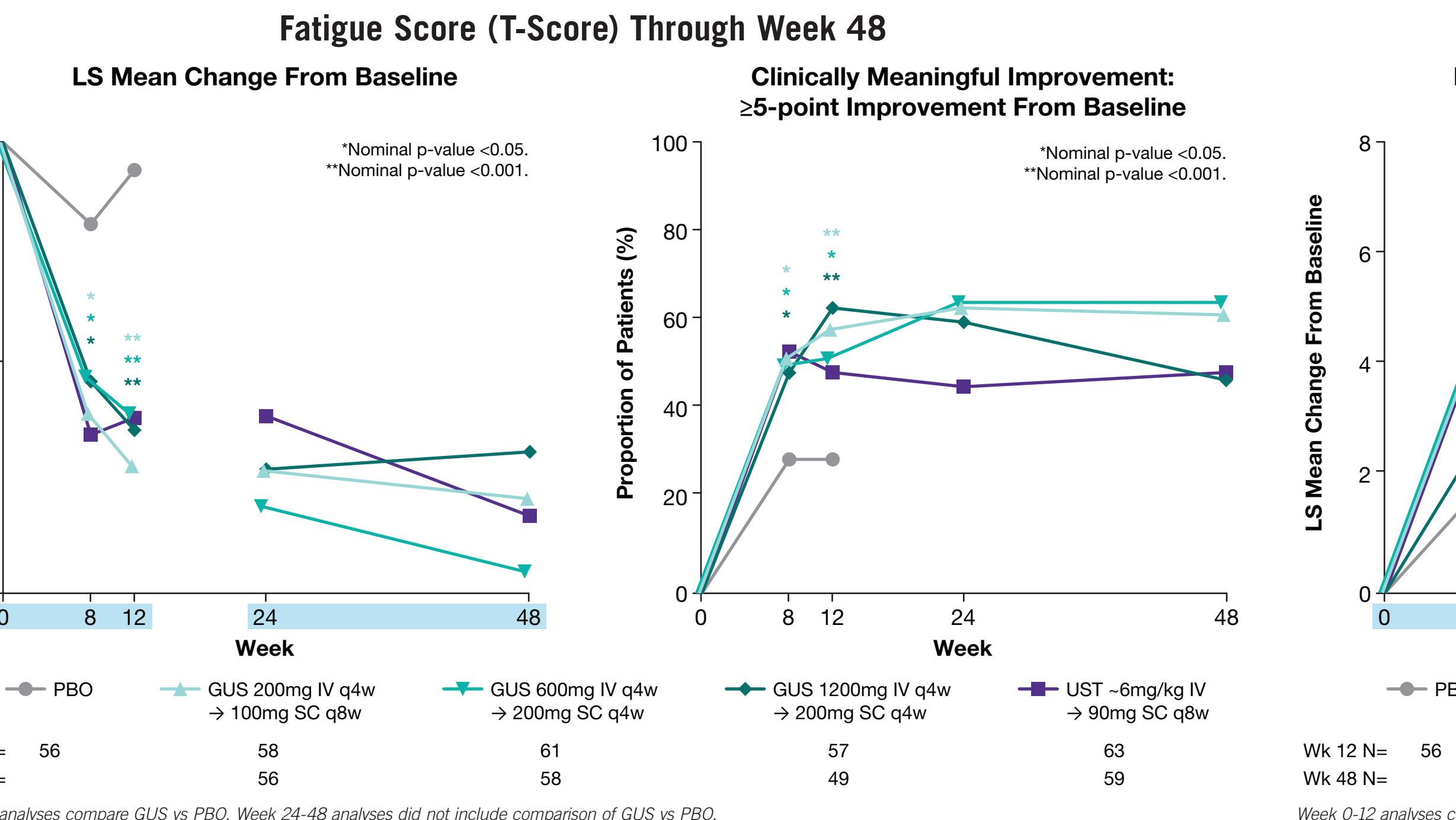
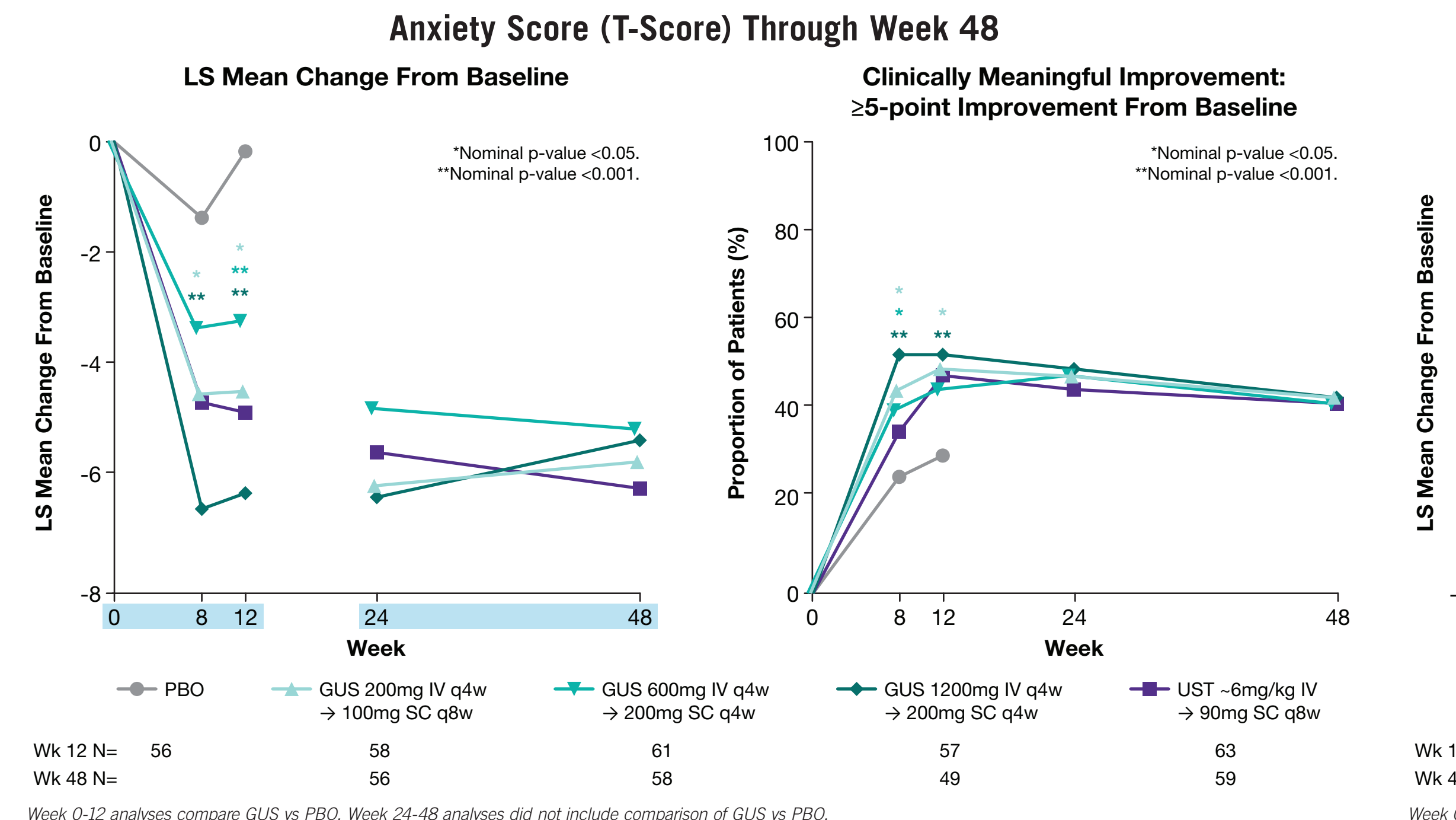
	Placebo	GUS			
		200 mg IV / 100 mg SC	600 mg IV / 200 mg SC	1200 mg IV / 200 mg SC	UST -6 mg/kg IV / 90 mg SC
Primary efficacy analysis set	61	61	63	61	63
Age, years - mean (SD)	38.9 (12.95)	40.3 (13.67)	39.0 (14.35)	39.6 (13.72)	36.1 (12.02)
Male, n (%)	37 (60.7)	38 (62.3)	36 (57.1)	31 (50.8)	41 (65.1)
Crohn's disease duration, years					
Mean (SD)	8.7 (6.54)	10.7 (12.17)	10.4 (9.74)	6.7 (6.91)	7.4 (6.17)
Median (IQR)	7.3 (3.5; 12.4)	6.1 (2.3; 14.3)	7.6 (2.9; 16.2)	4.6 (2.1; 9.7)	5.9 (2.1; 10.6)
Prior inadequate response or intolerance to biologic therapy, n (%)	30 (49.2)	32 (52.5)	35 (55.6)	34 (55.7)	37 (58.7)
Biologic-naïve, n (%)	19 (31.1)	25 (41.0)	24 (38.1)	25 (41.0)	19 (30.2)
CDAI score, mean (SD)	300.8 (49.91)	304.6 (57.24)	305.8 (58.77)	305.8 (54.46)	313.3 (61.30)
Stool frequency count ≥ 3 , n (%)	49 (80.3)	47 (77.0)	52 (82.5)	48 (78.7)	56 (88.9)
Abdominal pain score >1 , n (%)	58 (95.1)	57 (93.4)	58 (92.1)	59 (96.7)	60 (95.2)

Baseline PROMIS-29 Demographics and Disease Characteristics

	Placebo	GUS			
		200 mg IV / 100 mg SC	600 mg IV / 200 mg SC	1200 mg IV / 200 mg SC	UST -6 mg/kg IV / 90 mg SC
Primary efficacy analysis set	61	61	63	61	63
PROMIS-29 subset	57	60	63	61	63
Anxiety score (T-score), mean (SD)	57.68 (10.004)	56.43 (9.344)	56.94 (9.843)	57.29 (9.455)	54.25 (9.068)
Depression score (T-score), mean (SD)	54.99 (9.386)	54.33 (9.306)	53.64 (10.567)	54.07 (9.499)	52.20 (8.619)
Fatigue score (T-score), mean (SD)	57.80 (9.128)	56.36 (9.193)	56.74 (10.097)	58.35 (9.361)	56.03 (8.991)
Pain interference score (T-score), mean (SD)	62.25 (6.625)	60.26 (6.550)	62.26 (6.337)	60.69 (7.418)	60.37 (8.431)
Physical function score (T-score), mean (SD)	42.70 (7.491)	44.71 (8.391)	45.24 (7.888)	43.16 (8.275)	45.72 (8.056)
Sleep disturbance score (T-score), mean (SD)	55.06 (8.418)	54.19 (8.062)	54.84 (7.181)	53.23 (7.447)	52.55 (7.408)
Ability to participate in social roles and activities score (T-score), mean (SD)	45.50 (7.990)	46.25 (8.278)	46.80 (8.705)	45.40 (9.329)	47.99 (8.827)
Pain intensity score, mean (SD)	5.53 (2.122)	5.13 (2.012)	5.49 (1.925)	5.46 (2.038)	5.37 (2.238)

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