MAYO ENDOSCOPIC SUBSCORE CHANGES IN PARTICIPANTS WITH MODERATELY TO SEVERELY ACTIVE ULCERATIVE COLITIS TREATED WITH GUSELKUMAB IN THE QUASAR LONG-TERM EXTENSION

David T Rubin,[1] Jessica R Allegretti,[2] Yelina Alvarez,[3] Thomas Baker,[3] Shashi Adsul,[4] Darren Piscitelli,[4] Ye Miao,[3] Laurent Peyrin-Biroulet[5]

[1]University of Chicago Medicine Inflammatory Bowel Disease Center, Chicago, IL, USA; [2]Division of Gastroenterology, Hepatology and Endoscopy, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA; [3]Johnson & Johnson, Spring House, PA, USA; [4]Johnson & Johnson, Horsham, PA, USA; [5]Northwestern Medicine Digestive Health Institute, Chicago, IL, USA

Key Takeaways

- **Both guselkumab maintenance doses were associated with similar trends in continued endoscopic improvements over 3 years**
- **While approximately half of induction clinical responders still had moderate to severe endoscopic disease activity (MES of 2 or 3) at the beginning of maintenance, continued endoscopic improvement was observed following treatment, with most patients maintaining an MES or 0 or 1 and endoscopic remission through week M-140**

Background

Guselkumab (GUS), a dual-acting interleukin (IL)-23p19 subunit inhibitor that potently neutralizes IL-23 and binds to CD64 (a receptor on cells that produce IL-23), is highly efficacious in ulcerative colitis (UC)

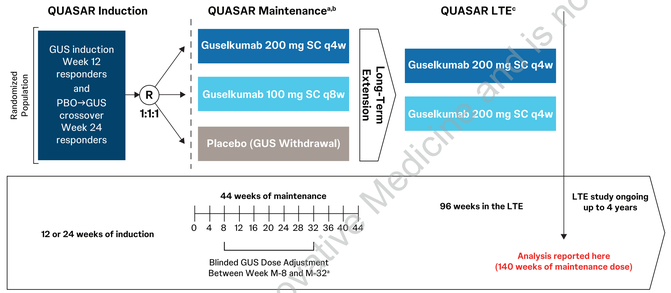
Mucosal healing in patients with UC is associated with favorable long-term therapeutic outcomes and is therefore a key treatment target

Objective

We report Mayo Endoscopic Subscore (MES) changes over 3 years in participants with moderately to severely active UC treated with GUS in the QUASAR long-term extension (LTE) study

GALAXI 2 & 3 and GRAVITI Study Designs Through Week 48

- QUASAR assessed intravenous GUS induction (200 mg or 400 mg every 4 weeks) and subcutaneous maintenance therapy (100 mg every 8 weeks or 200 mg every 4 weeks)
- At induction baseline, participants had a modified Mayo (mMayo) score of 5–9, a rectal bleeding subscore ≥1, and an MES of 2 or 3
- Participants in clinical response (≥30% and ≥2-point decrease in mMayo, with a ≥1-point decrease in the rectal bleeding subscore or a rectal bleeding subscore of 0 or 1) at week 12 post-induction could enter the randomized withdrawal maintenance study
- Participants on GUS 100 mg who lost clinical response between maintenance weeks 8–32 (M-8 to M-32) received blinded dose adjustment to GUS 200 mg every 4 weeks
- Endoscopies were locally read (without friability assessment) and centrally read (with friability assessment), with adjudication, at induction baseline, maintenance baseline (M-0), and M-44 and were locally read at M-92 and M-140; analyses used centrally read endoscopies when available
- We analyzed MES changes in participants who were randomized to GUS in the maintenance study, continued in the LTE, and had endoscopic evaluations at all time points through M-140 (100 mg: N=152; 200 mg: N=141)



[a]Randomized participants meeting loss of clinical response criteria (based on the modified Mayo score and required an endoscopic assessment) were eligible for a blinded dose adjustment as follows: placebo SC → GUS 200 mg SC q4w; GUS 100 mg SC q8w → GUS 200 mg SC q4w; GUS 200 mg SC q4w → GUS 200 mg SC q4w (sham adjustment). [b]Participants who completed the safety and efficacy evaluations (including the required endoscopy procedure) at maintenance Week M-44 and who may benefit from continued study intervention, in the opinion of the investigator, had the opportunity to participate in the LTE of the Maintenance Study. [c]The study blinding was maintained during the LTE until the last participant in the Maintenance Study completed the M-44 visit. After the Maintenance Study was unblinded, participants had their study visits scheduled to coincide with their dose regimen (either q4w or q8w) and participants receiving placebo were terminated from study participation. ***GUS***=guselkumab; ***LTE***=long-term extension; ***M***=maintenance; ***q4w***=every 4 weeks, ***q8w***=every 8 weeks, ***SC***=subcutaneous.

Results

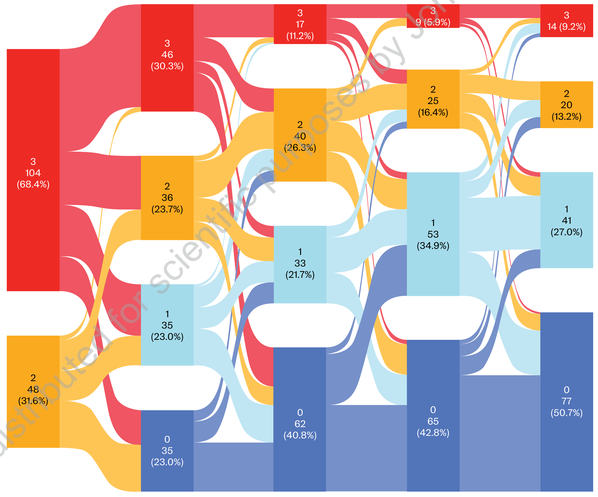
	GUS 100 mg q8w	GUS 200 mg q4w
Demographics		
Analysis set: LTE Randomized Full, N	155	148
Age, y, mean (SD)	40.2 (12.79)	40.6 (15.08)
Male, n (%)	83 (53.5)	75 (50.7)
Disease Characteristics		
UC disease duration, y, mean (SD)	8.15 (8.980)	8.16 (8.497)
Modified Mayo score (0-9), mean (SD)	6.8 (1.16)	6.9 (1.06)
Modified Mayo score of 7-9 (severe), n (%)	94 (60.6)	97 (65.5)
Endoscopic subscore of 3 (severe), n (%)	103 (66.5)	95 (64.2)
Extensive UC, n (%)	66 (42.6)	69 (46.6)
Biomarkers		
C-reactive protein, mg/L, median (IQR)[a]	4.0 (1.4-10.4)	3.9 (1.5-9.5)
Fecal calprotectin, mg/kg, median (IQR)[b]	1709.0 (815.0-3607.0)	1605.5 (596.0-3253.0)
Concomitant UC Medications		
Oral corticosteroid use at baseline, n (%)	56 (36.1)	54 (36.5)
Use of immunomodulatory drugs (6-MP, AZA, MTX), n (%)	39 (25.2)	36 (24.3)
Advanced Therapy History		
Participants with prior inadequate response or intolerance to advanced therapy, n (%)	60 (38.7)	62 (41.9)
Advanced therapy-naïve, n (%)	90 (58.1)	81 (54.7)

n*=153 for GUS 100 mg q8w; *n*=145 for GUS 200 mg q4w. [a]*n*=133 for GUS 100 mg q8w; *n*=134 for for GUS 200 mg q4w. ***6-MP=6-mercaptopurine, ***AZA***=azathioprine, ***IQR***=interquartile range, ***LTE***=long-term extension, ***MTX***=methotrexate, ***n***=number, ***q4w***=every 4 weeks, ***q8w***=every 8 weeks, ***SD***=standard deviation, ***UC***=ulcerative colitis, ***y***=years.

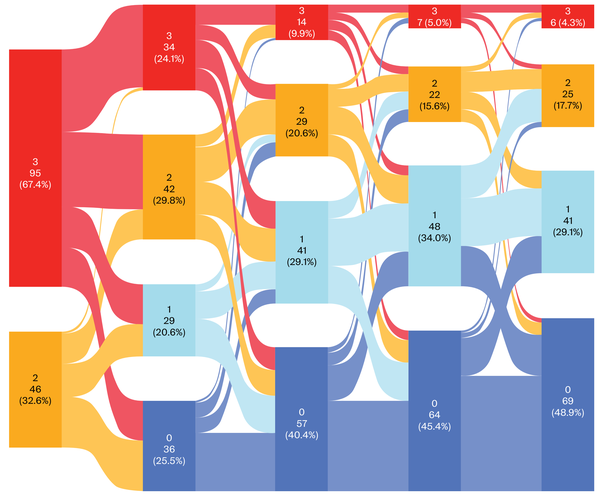
The percentage of participants with an MES of 3 decreased from induction baseline to week M-0 (100 mg: 68.4% to 30.3%; 200 mg: 67.4% to 24.1%), continued to decrease until week M-92 (100 mg: 5.9%; 200 mg: 5.0%), and was maintained in the 200 mg group (4.3%) at week M-140

- At induction baseline, all participants had an MES of 2 or 3
- After induction (at week M-0), 46.0% (100 mg) and 46.1% (200 mg) had an MES of 0 or 1
- Following maintenance treatment, the percentage of participants with an MES of 0 or 1 increased through week M-92 (100 mg: 77.6%; 200 mg: 79.4%) and was maintained at week M-140 (100 mg: 77.7%; 200 mg: 78.0%)
- By week M-44 and through week M-140, most participants with an MES of 0 or 1 were also in endoscopic remission (MES=0)

Mayo Endoscopic Subscores Through 3 Years: Guselkumab SC 100 mg q8w, or 200 mg q4w After Dose Adjustment (M-8 to M-32) (N=152)

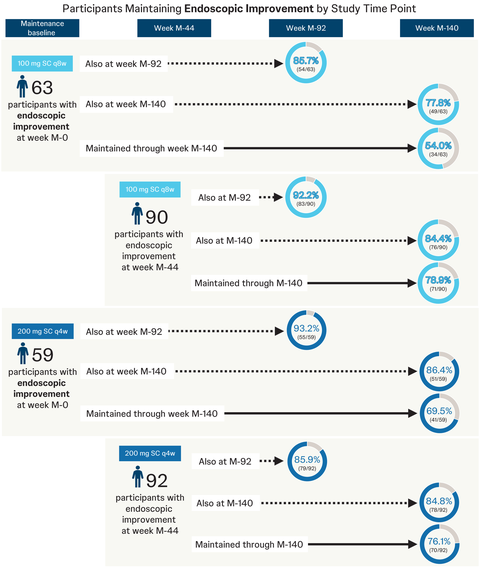


Mayo Endoscopic Subscores Through 3 Years: Guselkumab SC 200 mg q4w (N=141)



*Sankey diagrams showing MES at induction baseline, maintenance baseline, week M-44, week M-92, and week M-140. Participants in the 100 mg group who lost clinical response between maintenance weeks 8 and 32 had blinded dose adjustment to 200 mg. The top number in each box is the MES; the middle and bottom numbers are participant numbers and percentages, respectively. Participants who had an ostomy or colectomy, or discontinued study agent due to lack of efficacy or an AE of worsening UC prior to the designated time point had their induction baseline value carried forward from the time of the event onward. For participants who discontinued study agent for any other reason prior to the designated time point, their observed values (if available) were used. After accounting for these events, participants who were missing the MES at any visit were excluded from the analysis. **AE**=adverse event, **BL**=baseline, **M**=maintenance, **MES**=Mayo Endoscopic Subscore, **q4w**=every 4 weeks, **SC**=subcutaneous, **UC**=ulcerative colitis.*

61.5% of participants with endoscopic improvement[d] at maintenance baseline maintained endoscopic improvement at all subsequent time points



[d]*For induction baseline, maintenance baseline, and week M-44, endoscopic improvement was defined as a Mayo endoscopy subscore of 0 or 1 with no friability; for weeks M-92 and M-140, endoscopic improvement was defined as a Mayo endoscopy subscore of 0 or 1.* ***GUS***=*guselkumab,* ***M***=*maintenance,* ***q4w***=*every 4 weeks,* ***q8w***=*every 8 weeks,* ***SC***=*subcutaneous.*

PRESENTED AT: Digestive Disease Week (DDW); May 2–5, 2026; Chicago, IL, USA. **ACKNOWLEDGMENTS:** Medical writing support was provided by Jen Garofoli, PhD, under the direction of the authors in accordance with Good Publication Practice guidelines (*Ann Intern Med.* 2022;175:1298–1304). This presentation was sponsored by Johnson & Johnson. **DISCLOSURES: DTR:** grant support from Takeda; consultant for Abbvie, Abivax SA, Altrubio, Athos Therapeutics, Inc, Bristol Myers Squibb, Celltrion, Connect BioPharma, Eli Lilly & Co., Genentech (Roche) Inc., Iterative Health, Janssen Pharmaceuticals, Johnson & Johnson, Merck & Co., Mirador, Odyssey Therapeutics, Pfizer, Sanofi, Spyre, Takeda Pharmaceuticals, Vedanta Biosciences, and Ventyx; on the Board of Directors for Cornerstones Health (non-profit) and IUSCAN (non-profit). **JRA:** consultant for Abbvie, Bristol Myers Squibb, Celltrion, Ferring, Genentech, GSK, Johnson & Johnson, Merck, Pfizer, Roivant, Seres Therapeutics, Shattuck Labs, and Roivant Adiso; speaker for Abbvie and Johnson & Johnson. **YA, TB, SA, DP,** and **YM:** employees of and may own stock in Johnson & Johnson. **LPB:** consulting for AbbVie, Abivax, Adacyte, Alfasigma, Alimentiv, Amgen, Apini, Banook, Bristol Myers Squibb, Celltrion, Enthera, Ferring, Fresenius Kabi, Galapagos, Genentech, Gilead, Iterative Health, Johnson & Johnson, LifeMine, Lilly, Medac, Morphic, MSD, Nordic Pharma, Novartis, Oncodesign, Precision Medicine, ONO Pharma, OSE Immunotherapeutics, Par' immune, Pfizer, Prometheus, Roche, Roivant, Samsung, Sandoz, Sanofi, Sorriso, Spyre, Takeda, Teva, ThirtyFiveBio, Tillots, VectivBio, Vedanta, and Ventyx; lecture fees from AbbVie, Alfasigma, Amgen, Biogen, Celltrion, Ferring, Galapagos, Genentech, Gilead, Iterative Health, Johnson & Johnson, Lilly, Medac, MSD, Nordic Pharma, Pfizer, Sandoz, Takeda, and Tillots.