Poster #EPO-054

# Efgartigimod Demonstrates a Consistent Magnitude of Response Across Subgroups of Patients With Generalized Myasthenia Gravis


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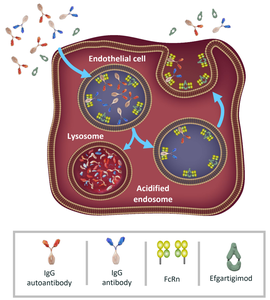
## INTRODUCTION

### Efgartigimod Mechanism of Action: Blocking FcRn

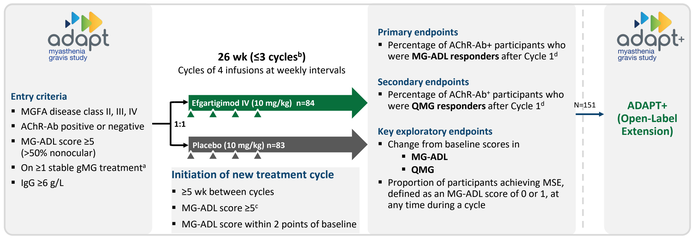
- FcRn recycles IgG, extending its half-life and maintaining serum concentration[1]
- Efgartigimod is a human IgG1 Fc fragment, a natural ligand of FcRn, engineered for increased affinity to FcRn[2,3]
- Efgartigimod was designed to outcompete endogenous IgG, preventing recycling and promoting IgG lysosomal degradation without directly impacting its production[2-6]
  - Targeted reduction of all IgG subtypes
  - No impact on IgM, IgA, IgE, IgD
  - No reduction in albumin or increase in cholesterol levels




## METHODS

### ADAPT was a 26-week, global, randomized, double-blind, placebo-controlled, phase 3 trial evaluating the efficacy and safety of efgartigimod in participants with gMG[4]

- In this post hoc study, data collected from AChR-Ab+ participants in ADAPT were analyzed in subgroups based on disease duration (<3, 3–<6, and ≥6 years since gMG diagnosis) and concomitant treatments received




[a]AChEI, steroid +/or NSIST. Participants could not change concomitant therapies in ADAPT. [b]≤3 cycles dosed at ≥8 weeks after initial cycle. [c]With >50% from nonocular items. [d]MG-ADL responders were defined by a ≥2-point reduction from Cycle 1 baseline score for ≥4 consecutive weeks, with the first decrease occurring ≤1 week after last study drug infusion. QMG responders were defined by a ≥3-point reduction from Cycle 1 baseline score for ≥4 consecutive weeks, with the first decrease occurring ≤1 week after last study drug infusion.

## RESULTS

**Table 1.** Baseline Characteristics, *AChR-Ab+ Participants*

| Clinical characteristics | Efgartigimod (n=65) | Placebo (n=64) |
|---|---|---|
| **Age,** mean, y (SD) | 44.7 (15.0) | 49.2 (15.5) |
| **Sex, female,** n (%) | 46 (70.8) | 40 (62.5) |
| **Time since diagnosis,** mean, y (SD) | 9.68 (8.3) | 8.93 (8.2) |
| **MG-ADL score,** mean (SD) | 9.0 (2.5) | 8.6 (2.1) |
| **QMG score,** mean (SD) | 16.0 (5.1) | 15.2 (4.4) |
| **MGFA class at screening,** n (%) | | |
| Class II | 28 (43.1) | 25 (39.1) |
| Class III | 35 (53.8) | 36 (56.3) |
| Class IV | 2 (3.1) | 3 (4.7) |

**Table 2.** Subgroup Characteristics, *AChR-Ab+ Participants*

| Subgroups | Efgartigimod (n=65) | Placebo (n=64) |
|---|---|---|
| **Disease duration,** n (%) | | |
| <3 y | 14 (21.5) | 17 (26.6) |
| 3-<6 y | 14 (21.5) | 15 (23.4) |
| ≥6 y | 37 (56.9) | 32 (50.0) |
| **gMG therapies at baseline,** n (%) | | |
| Any NSIST | 40 (61.5) | 37 (57.8) |
| No NSIST | 25 (38.5) | 27 (42.2) |
| Any steroid | 46 (70.8) | 51 (79.7) |
| No steroid | 19 (29.2) | 13 (20.3) |
| AChEI only | 13 (20.0) | 6 (9.4) |

**ABBREVIATIONS**
**AChEI**, acetylcholinesterase inhibitor; **AChR-Ab+,** acetylcholine receptor antibody seropositive; **AE**, adverse event; **CMI**, clinically meaningful improvement; **FcRn**, neonatal Fc receptor; **Fc**, fragment crystallizable region; **gMG**, generalized myasthenia gravis; **Ig**, immunoglobulin; **IR**, incidence rate; **IV**, intravenous; **m**, number of events; **MG-ADL**, Myasthenia Gravis Activities of Daily Living; **MGFA**, Myasthenia Gravis Foundation of America; **MSE**, minimal symptom expression; **n**, number of patients; **NSIST**, nonsteroidal immunosuppressive therapy; **QMG**, Quantitative Myasthenia Gravis; **PY**, patient-year; **SAE**, serious adverse event.

## RESULTS

**Figure 1.** Magnitude of Change in MG-ADL and QMG by Concomitant Medications
*AChR-Ab+ Participants*

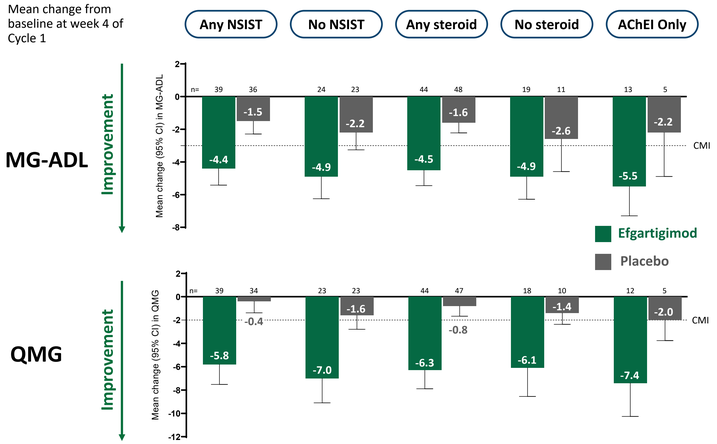



**Figure 2.** MSE by Concomitant Medication
*AChR-Ab+ Participants*

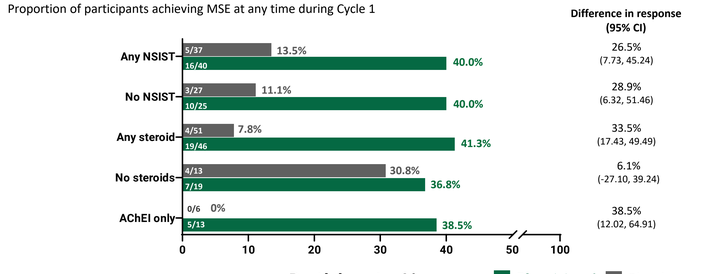



**Figure 3.** Magnitude of Change in MG-ADL and QMG by Disease Duration
*AChR-Ab+ Participants*

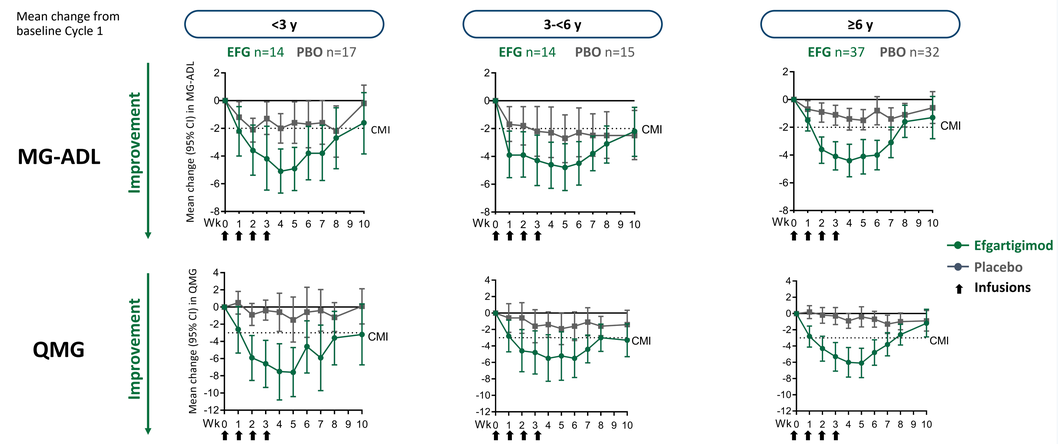



**Figure 4.** MSE by Disease Duration
*AChR-Ab+ Participants*

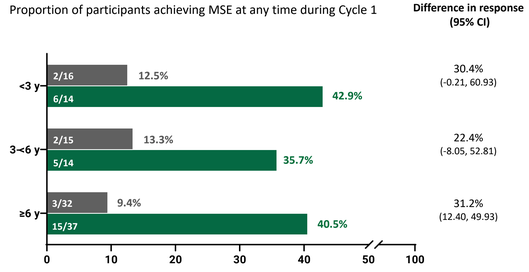



**Table 3.** Summary of AEs
*Safety Population*

| | Efgartigimod (n=84) [34.9 PY] | | | Placebo (n=83) [34.5 PY] | | |
|---|---|---|---|---|---|---|
| | IR[a] | m | n (%) | IR[a] | m | n (%) |
| **AEs**[b] | **7.23** | 252 | 65 (77) | **7.83** | 270 | 70 (84) |
| **SAEs** | **0.11** | 4 | 4 (5)[c] | **0.29** | 10 | 7 (8) |
| **≥1 infusion-related reaction event** | **0.09** | 3 | 3 (4) | **0.26** | 9 | 8 (10) |
| **Infection AEs** | **1.61** | 56 | 39 (46) | **1.22** | 42 | 31 (37) |
| **Discontinued due to AEs** | **0.20** | 7 | 3 (4) | **0.09** | 3 | 3 (4) |
| **Severe AEs (grade ≥3)** | **0.29** | 10 | 9 (11) | **0.35** | 12 | 8 (10) |
| **Death** | - | 0 | 0 (0) | - | 0 | 0 (0) |
| **Most frequent AEs** | | | | | | |
| Nasopharyngitis | **0.34** | 12 | 10 (12) | **0.49** | 17 | 15 (18) |
| Upper respiratory tract infection | **0.32** | 11 | 9 (11) | **0.14** | 5 | 4 (5) |
| Urinary tract infection | **0.26** | 9 | 8 (10) | **0.12** | 4 | 4 (5) |
| Headache | **1.15** | 40 | 24 (29) | **1.13** | 39 | 23 (28) |
| Nausea | **0.20** | 7 | 7 (8) | **0.43** | 15 | 9 (11) |
| Diarrhea | **0.17** | 6 | 6 (7) | **0.41** | 14 | 9 (11) |

[a]IR was calculated as number of events per total PY of follow-up. [b]AEs were predominantly mild or moderate.
[c]Only 1 SAE was considered treatment related per investigator.

## SUMMARY

**The magnitude of effect for participants treated with efgartigimod is consistent regardless of disease duration or concomitant therapy**

**Similar proportions of participants treated with efgartigimod are able to achieve MSE irrespective of medications or length of disease**

**These data suggest efgartigimod is an effective treatment for a broad gMG population, including those early in their disease/treatment course**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**REFERENCES**

**1.** Sesarman A, et al. *Cell Mol Life Sci.* 2010;67(15):2533-2550. **2.** Ulrichs P, et al. *J Clin Invest*. 2018;128(10):4372-4386. **3.** Vaccaro C, et al. *Nat Biotech.* 2005;23(10):1283-1288. **4.** Howard JF Jr, et al. *Lancet Neurol.* 2021;20(7):526-536. **5.** Nixon AE, et al. *Front Immunol.* 2015;6:176. **6.** Ward ES, et al. *Front Immunol.* 2022;13:892534.



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