RWD105

Dosing schedules and concomitant medication usage in patients with generalized myasthenia gravis treated with ravulizumab or efgartigimod

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INTRODUCTION

- Generalized myasthenia gravis (gMG) is a rare, chronic autoimmune disease characterized by fatigable muscle weakness.[1,2]
- Ravulizumab, a terminal complement inhibitor, and efgartigimod, a neonatal Fc receptor blocker, are both approved in Europe and the United States to treat anti-acetylcholine receptor antibody-positive (AChR-Ab+) gMG.[3-6]
- Both ravulizumab and efgartigimod are administered via intravenous infusion, however, their dosing schedules differ.[3,4]
  - Ravulizumab is administered every 8 weeks after an initial loading dose.[3]
  - Efgartigimod is administered in cycles consisting of once weekly administration for 4 weeks; subsequent treatment cycles are administered based on clinical evaluation and vary by patient.[4]
- Comparison of concomitant medication use in patients treated with ravulizumab versus efgartigimod is limited.

OBJECTIVE

- To assess the dosing schedule and concomitant medication usage during a 12-month period in patients receiving ravulizumab or efgartigimod in a real-world setting.

CONCLUSIONS

- In this analysis of real-world data, patients who received ravulizumab had fewer infusions than patients who received efgartigimod.
  - Efgartigimod treatment was highly variable with differences in the number of cycles and time between cycles between patients.
- Claims for concomitant medication during follow-up decreased to a greater extent among patients treated with ravulizumab than among patients treated with efgartigimod.
- These findings will help to inform patients and their care providers when selecting gMG treatments.

METHODS

- The IQVIA PharMetrics® Plus claims database was retrospectively analyzed (1/1/2015-9/30/2023).
- Eligible patients were aged ≥ 18 years, had ≥ 2 claims (≥ 30 days apart) with MG diagnosis International Classification of Disease (ICD-10) codes filed by a nonophthalmologic specialist, had received ravulizumab or efgartigimod after the MG diagnosis index date, and had continuous insurance enrollment from 3 months before to 12 months after first dose.
  - Patients who received eculizumab or switched therapies after treatment initiation were excluded.
- Outcomes included the number of doses and concomitant medications for both treatment groups.
  - The number of cycles and gap between cycles was evaluated for the efgartigimod group.

RESULTS AND INTERPRETATION

Patient characteristics

- Of the 208,854,122 patients in the IQVIA PharMetrics® Plus database, 133 met the study criteria.
- Most patients were male (ravulizumab group, 26/37 [70%]; efgartigimod group, 51/96 [53%]).
- Patients in the ravulizumab group were older at MG diagnosis (mean [SD] age, 62.0 [14.5]) than those in the efgartigimod group (58.5 [15.2]).

Dosing schedules

- On average, the ravulizumab group received fewer infusions than the efgartigimod group (**Figure 1**).
- In the efgartigimod group, the highest proportion of patients received > 20 infusions (> 5 cycles) (**Figure 2**).
- The average time between efgartigimod treatments decreased with increasing number of cycles (**Figure 3A**).
- For the majority of patients treated with efgartigimod, the time to the second treatment cycle was < 50 days (**Figure 3B**).

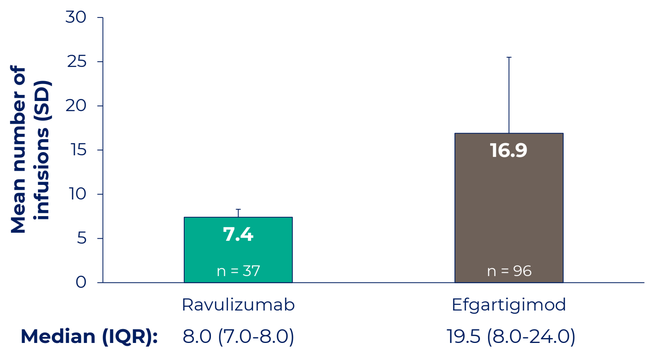
Concomitant medications

- The proportion of patients with ≥ 1 intravenous immunoglobulin or subcutaneous immunoglobulin claim during a 1-year follow-up tended to decrease with increasing number of efgartigimod cycles (**Figure 4**).
- Concomitant therapy use decreased more for patients treated with ravulizumab compared with those treated with efgartigimod (**Figure 5**).

Study limitations

- Limitations of this study include the limited outcomes data in the claims source and a small sample size due to the follow-up time available.

Figure 1. Mean annual number of infusions in the ravulizumab and efgartigimod groups



IQR, interquartile range.

Figure 2. Efgartigimod patient distribution by annual number of infusions or cycles (n = 96)

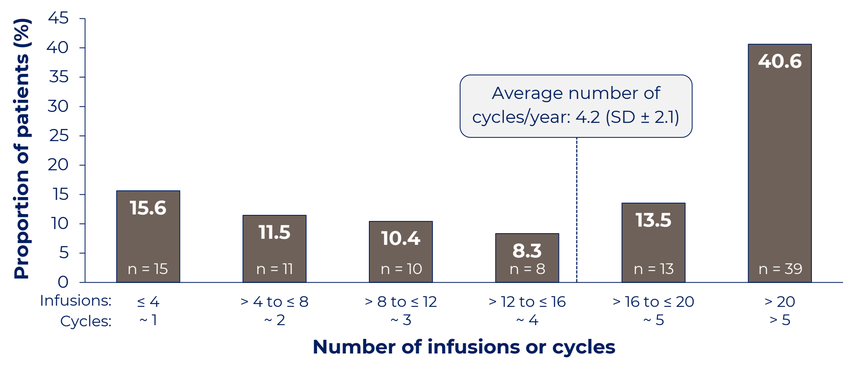
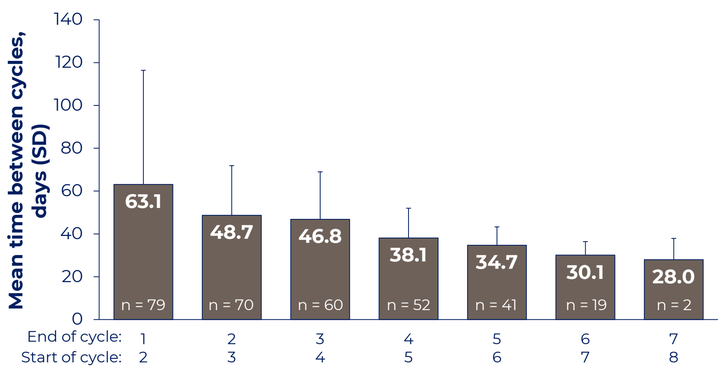
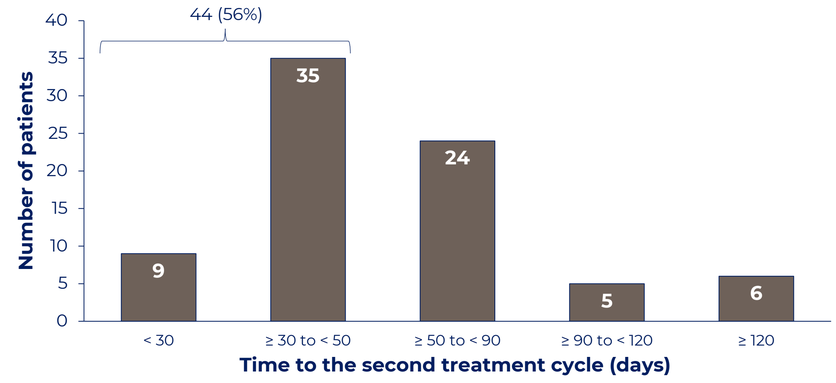


Figure 3. Time between efgartigimod cycles

A. Time between efgartigimod treatment cycles

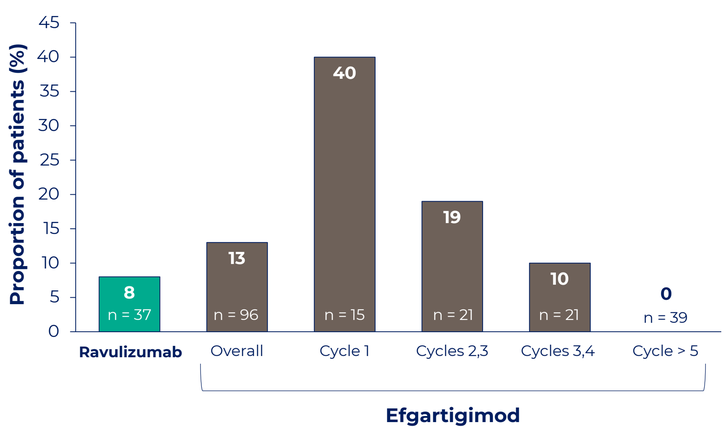


B. Time to second efgartigimod treatment cycle (n = 79)[a]



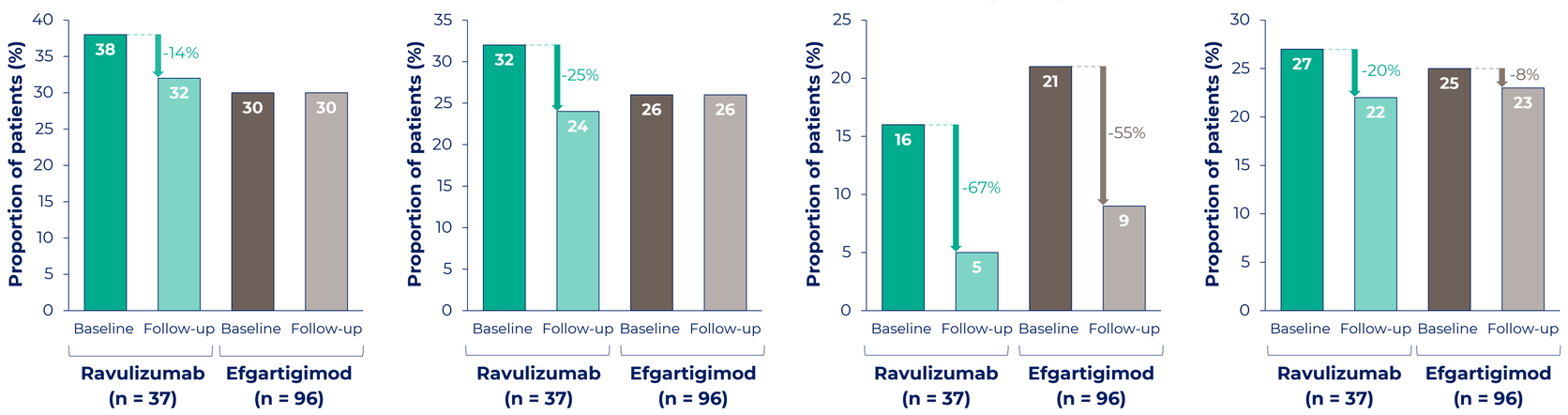
In this analysis, a cycle was defined as no more than 4 doses of efgartigimod, with every fifth dose becoming the first dose of the next cycle. A cycle was considered incomplete if the second dose was given ≥ 22 days after first, the third dose was given ≥ 18 days after second, or the fourth dose was given ≥ 14 days after the third; if such was the case, the second, third, or fourth dose was considered the first dose of a new cycle. In any given cycle, if there is only one dose, that cycle would not be counted as a valid cycle.
[a]Patients with ≥ 2 efgartigimod treatment cycles included.

Figure 4. IVIg/SCIg usage in ravulizumab and efgartigimod groups by number of cycles



Efgartigimod cycles were calculated by dividing the total number of doses by 4 doses per cycle.
IVIg, intravenous immunoglobulin; SCIg, subcutaneous immunoglobulin.

Figure 5. Discontinuation of concomitant medications



Baseline is 3 months, and follow-up is 9-12 months. AChE inhibitors include pyridostigmine bromide. IST includes azathioprine, cyclophosphamide, cyclosporine, methotrexate, mycophenolate, and tacrolimus. Steroids include prednisone.
AChE, acetylcholine esterase; IST, immunosuppressive therapy; IVIg, intravenous immunoglobulin; SCIg, subcutaneous immunoglobulin.

References
1. Conti-Fine BM, et al. *J Clin Invest*. 2006;116(11):2843-2854. **2.** Hehir MK, et al. *Neurol Clin*. 2018:36(2):253-260. **3.** Ultomiris (ravulizumab). Summary of product characteristics. Alexion Europe SAS; 2024. **4.** VYVGART (efgartigimod alfa). Summary of product characteristics. argenx BV; 2024. **5**. Ultomiris (ravulizumab-cwvz). Prescribing information. Alexion Pharmaceuticals; 2024. **6**. VYYGART (efgartigimod alfa-fcab). Prescribing information. argenx; 2024.

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Poster

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