

Changing priorities among physician reported reasons for choice of pharmacological Generalized Myasthenia Gravis treatments across 5 European countries

Andras Borsi¹, Riikka Nissinen¹, Charlotte Gary¹, Wim Noel¹, Jennifer Lee¹, James McCallon¹, Qiaoyi Zhang², Alberto E. Batista², Miroslav Vavrinec³, Jonathan DeCourcy³, Emma Chatterton³, Owen Thomas³, Gregor Gibson³

¹Janssen-Cilag EMEA; ²Janssen Global Services, LLC; ³Adelphi Real World, Bollington, UK

OBJECTIVE

- To explore physician-reported reasons for choice of treatment among gMG patients across line of therapy and drug type received in five European countries

CONCLUSIONS

- These results highlight that physician priorities for treatment choice change as patients progress through lines of therapy.
- Symptom control was the driver of initial treatment choice and AChEI utilisation. Administration, safety and suitability were drivers amongst later lines of treatment options.
- Across all lines of therapy, administration convenience and safety were reasons to use NS-ISTs whilst patient suitability and other generalised reasons were drivers in the use of biologics.
- Safety and convenience concerns indicate efficacious and safe long-term treatment is required to achieve sustained gMG symptom control.

INTRODUCTION

- Generalized Myasthenia Gravis (gMG) is a chronic, autoantibody condition causing muscle weakness.
- There is no causal cure however a range of pharmacological treatments are currently prescribed, typically acetylcholinesterase inhibitors (AChEIs), corticosteroids, and non-steroidal immunosuppressants (NS-ISTs).
- A variety of options and patient characteristics requires physicians to carefully consider treatment.

RESULTS AND INTERPRETATION

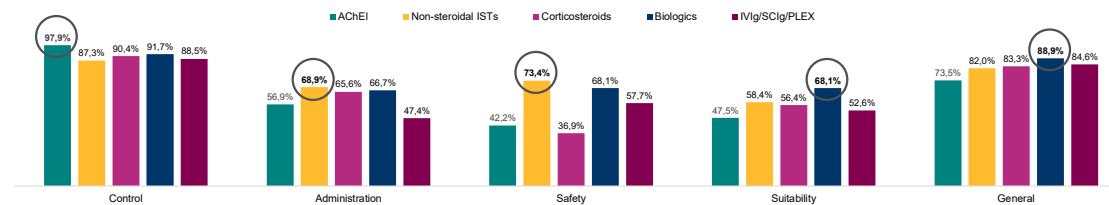
- 144 physicians reported the current and historic reasons for choice of maintenance/chronic treatment for 529 patients with gMG.
- The mean patient age was 54.0 (SD±15.43), 51.0% were female and average time from diagnosis to survey was 4.1 years (SD±5.27, **table 1**).

Table 1. Patient demographics

gMG patients with current or historic reasons for choice of maintenance/chronic treatment, N	529
Age (years), mean (SD)	54 (15.43)
Gender (female), n (%)	270 (51.0)
BMI, mean (SD)	25 (3.68)
Time since MG diagnosis (years), mean (SD)	4.1 (5.27)

- Reasons for choice of maintenance treatment were grouped into five categories from a preselected list of options, **table 2**. The list was multiple choice with the physician able to select as many as they deemed relevant.
- Symptom control** reasons were most frequently selected at first line (99.6%), Administration at second line (69.7%), **figure 1**.
- Safety (80.0%), suitability (83.6%) and general (87.3%) were selected most frequently at a third line or later, **figure 2**.

Figure 3. Frequency of grouped reasons for choice of treatment by drug class across all lines of therapy



METHODS

- The Adelphi MG Disease Specific Programme™ (DSP) collected point-in-time data from physicians and their patients across France, Germany, Italy, Spain and the UK between March – September 2020.
- The DSP methodology has been previously published¹.
- Physicians reported patient demographics, treatment history and reasons for treatment selection.
- A list of 46 reasons for choice was provided for each drug selected at each line of treatment, grouped into five categories of symptom control, administration, safety, suitability and general (figure 1).
- Lines of treatment were defined as starting, stopping or switching any maintenance/chronic treatment.
- Only patients with gMG (defined as MGFA class II-IV) at the time of survey were included.

Table 2. Physician reported reasons for choice of maintenance treatment grouped in five categories

Symptom Control	Administration	Safety	Suitability	General
Improve mobility / movement	Convenient administration	Improve tolerability	Suitable for younger patients	Slow down disease progression
Reduce swallowing difficulties	Clear and simple dosage regimen / ease of titration	To minimize glucocorticoid steroid usage	Suitable for older patients	To combat a relapse / exacerbation of symptoms
Reduce speaking difficulties	Reduce disruption to patient's life	Less / no interaction with other drugs	Suitable for use in Class I patients	Maintain quality of life
Reduce anxiety / depression	Patient can self-administer	Reduced severity of side-effects	Suitable for use in Class II patients	Long-term efficacy
Improve eyelid function	Once daily dosage	Reduced risk of complications	Suitable for use in Class III patients	Fast onset of action
Improve vision	Availability of different formulations		Suitable for use in Class IV patients	Good patient compliance
Reduce respiratory problems	Less frequent injections		Suitable for use across all disease stages	Cost effective treatment

Figure 1. Frequency of Symptom control and Administration reasons for choice of treatment by current line of therapy

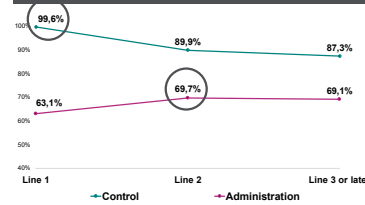
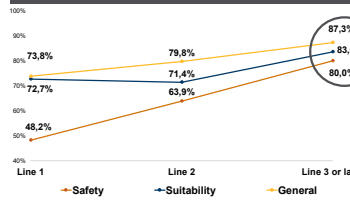


Figure 2. Frequency of Safety, Suitability and General reasons for choice of treatment by current line of therapy



LIMITATIONS

- Patients included in the DSP sample may not be truly representative of the overall population of patients, as patients who consult more frequently are more likely to be included.
- The quality of the data depends on the reporting accuracy of information by physicians and patients which may be subject to recall bias.
- The groupings of reasons for choice have been categorized by the authors of this study

Table 3. Frequency of drug class across all lines of therapy

gMG patients with current or historic reasons for choice of maintenance/chronic treatment, N	529
AChEIs, n (%)	434 (82.0)
Corticosteroids, n (%)	282 (53.3)
Non-steroidal Immunosuppressants (NS-ISTs), n (%)	267 (50.5)
IVIg / SCIg / PLEX, n (%)	78 (14.7)
Biologics, n (%)	72 (13.6)
Others, n (%)	3 (0.6)

- Across all lines of treatment, AChEIs were most frequently prescribed (82.0%), followed by corticosteroids (53.3%), NS-ISTs (50.5%), IVIg/SCIg/PLEX (14.7%) and biologics (13.6%), **table 3**.
- By treatment class, symptom control was selected most frequently for AChEIs (97.9%, **figure 3**).
- Administration (68.9%) and safety (73.4%) were selected most frequently for NS-ISTs, **figure 3**.
- Suitability (68.1%) and general (88.9%) were selected most frequently for biologics, **figure 3**.

ACKNOWLEDGEMENTS

We would like to thank the physicians and patients for taking part in this study and providing the information included.

DISCLOSURES

AB, RN, CG, WN, JL, JM, QZ, AEB and MV are employees of Janssen JcC, EC, OT and GG are employees of Adelphi Real World

REFERENCES

1. Anderson P, Berford M, Harris N, Karwall M, Percy J. Real-world physician and patient behaviour across countries: Disease-Specific Programmes – a means to understand. Current Medical Research and Opinion. 2020; 24(11):2003-2022

