

## **Supplementary Material**

### **Efficacy and safety of rituximab in anti-MuSK myasthenia gravis: a systematic review and meta-analysis**

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## **Supplementary Methods**

### **Search Strategy**

General search and Medical Subject Headings (MeSH) terms were used as follows:

#### EMBASE, PubMed, and Cochrane Library

1. myasthenia gravis OR myasthenia
2. MuSK
3. MuSK antibody
4. anti-musk
5. #1 OR #2 OR #3 OR #4
6. biologic agent
7. rituximab
8. targeted therapy
9. #6 OR #7 OR #8
10. #5 AND #9

## Quality Assessment

### Selection

1) Representativeness of the exposed cohort -> Adapted to Representativeness of the participants.

- a) Truly representative of the average \_\_\_\_\_ in the community \*
- b) Somewhat representative of the average \_\_\_\_\_ in the community \*
- c) Selected group of users eg nurses, volunteers
- d) No description of the derivation of the cohort

2) Selection of the non-exposed cohort -> Adapted to Selection of the participants.

- a) Drawn from the same community as the exposed cohort \* -> Adapted to Participants are drawn from the same community.
- b) Drawn from a different source
- c) No description of the derivation of the non-exposed cohort -> no description of the derivation of the participants.

3) Ascertainment of exposure

- a) Secure record (e.g. surgical records, Medical records) \*
- b) Structured interview \*
- c) written self-report
- d) No description

4) Demonstration that outcome of interest was not present at start of study

- a) Yes \*
- b) No

## **Comparability**

1) Comparability of cohorts on the basis of the design or analysis -> Adapted to Comparability of participants on the basis of the design or analysis

- a) Study controls for \_\_\_\_\_ (the most important factor : RTX regimen) \*
- b) Study controls for any additional factor \* (This criteria could be modified to indicate specific control for a second important factor.)

## **Outcome**

1) Assessment of outcome

- a) Independent blind assessment \*
- b) Record linkage \*
- c) Self-report
- d) No description

2) Was follow-up long enough for outcomes to occur

- a) Yes (select an adequate follow up period for outcome of interest : At least 3 months) \*
- b) No

3) Adequacy of follow up of cohorts

- a) Complete follow up - all subjects accounted for \*
- b) Subjects lost to follow up unlikely to introduce bias - small number lost - > 80 %  
(select an adequate %) follow up, or description provided of those lost) \*
- c) Follow up rate < 80 % (select an adequate %) and no description of those lost
- d) No statement

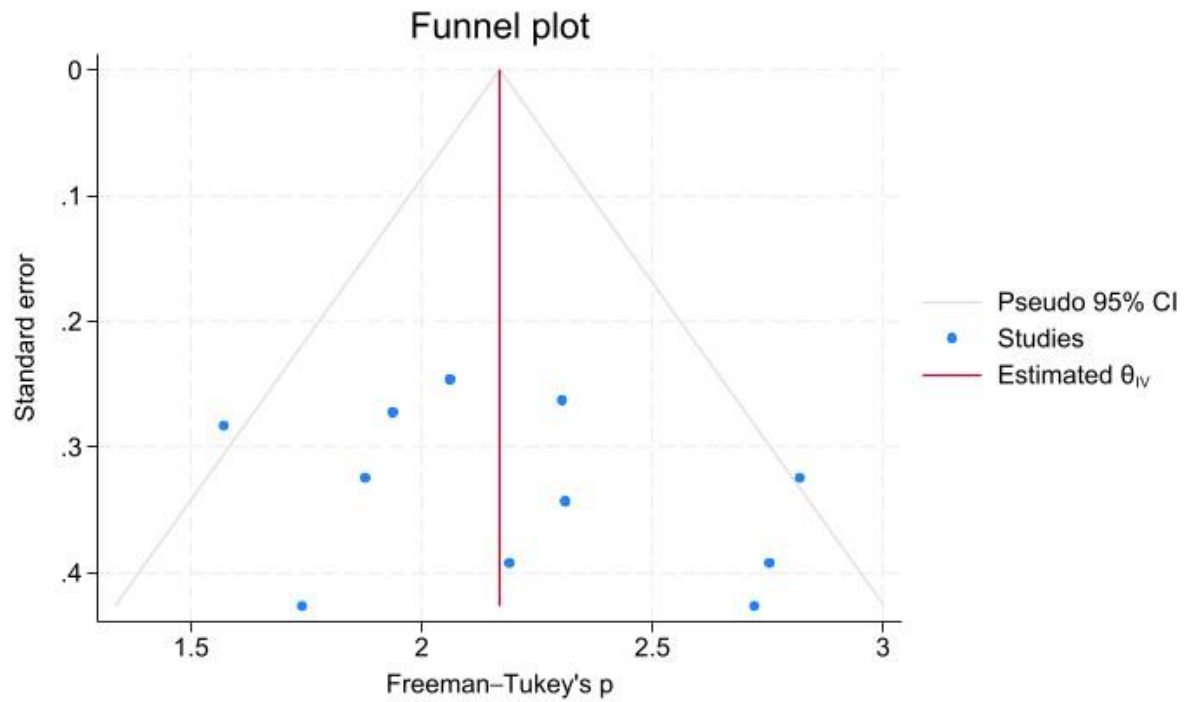
## Supplementary Table

Supplementary Table S1. Modified Newcastle-Ottawa quality assessment scale for cohort studies

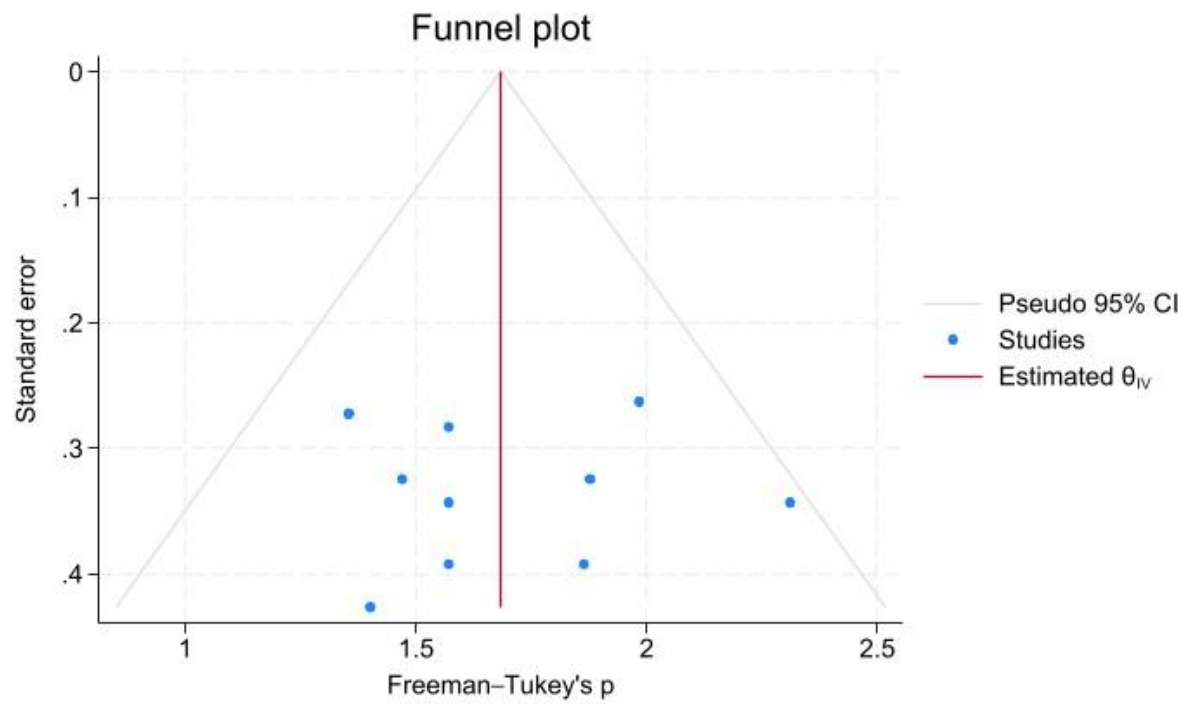
| Study               | Year | Selection (Maximum : ★★★)                |                           |                                               | Outcome (Maximum : ★★★) |                     |                       | Total score (Out of 6) |
|---------------------|------|------------------------------------------|---------------------------|-----------------------------------------------|-------------------------|---------------------|-----------------------|------------------------|
|                     |      | Representativeness of the exposed cohort | Ascertainment of exposure | Outcome not present at the start of the study | Assessment of outcome   | Length of follow up | Adequacy of follow up |                        |
| Xishuai Yang        | 2024 | ★                                        | ★                         | ★                                             | ★                       | ★                   |                       | ★★★★★ (5)              |
| Jeannine M Heckmann | 2022 | ★                                        | ★                         | ★                                             | ★                       | ★                   | ★                     | ★★★★★ (6)              |
| Juan I Castiglione  | 2022 | ★                                        | ★                         | ★                                             | ★                       | ★                   |                       | ★★★★★ (5)              |
| Xin meng            | 2022 | ★                                        | ★                         | ★                                             | ★                       | ★                   | ★                     | ★★★★★ (6)              |
| Sijia Zhao          | 2021 | ★                                        | ★                         | ★                                             | ★                       | ★                   |                       | ★★★★★ (5)              |
| Yufan Zhou          | 2021 | ★                                        | ★                         | ★                                             | ★                       | ★                   | ★                     | ★★★★★ (6)              |
| A Dos Santos        | 2020 | ★                                        | ★                         | ★                                             | ★                       | ★                   |                       | ★★★★★ (5)              |
| Tess Litchman       | 2020 | ★                                        | ★                         | ★                                             | ★                       | ★                   |                       | ★★★★★ (5)              |
| Kyomin Choi         | 2019 | ★                                        | ★                         | ★                                             | ★                       | ★                   | ★                     | ★★★★★ (6)              |
| Raffi Topakian      | 2019 | ★                                        | ★                         | ★                                             | ★                       | ★                   |                       | ★★★★★ (5)              |
| Ricardo H Roda      | 2019 | ★                                        | ★                         | ★                                             | ★                       | ★                   |                       | ★★★★★ (5)              |
| J Díaz-Manera       | 2012 | ★                                        | ★                         | ★                                             | ★                       | ★                   | ★                     | ★★★★★ (6)              |

## Supplementary Discussion

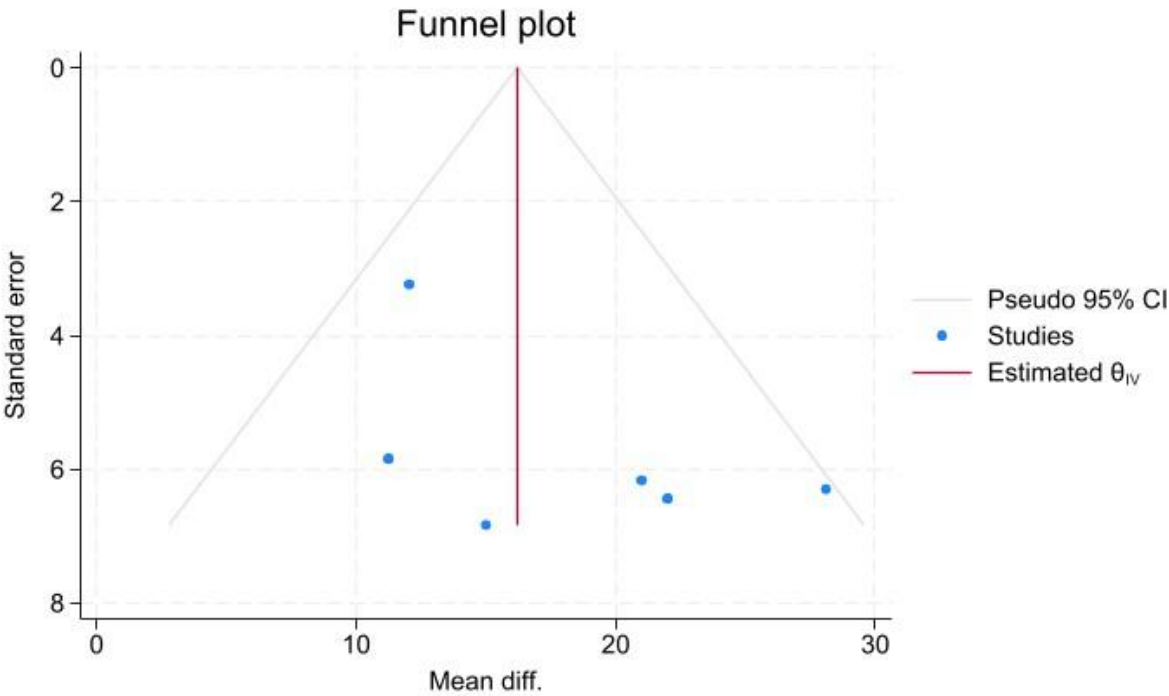
Supplementary Figure S1. Funnel plot of proportion of participants achieving MGFA-PIS MM or better



Supplementary Figure S2. Funnel plot of proportion of participants achieving MGFA-PIS CSR or PR



Supplementary Figure S3. Funnel plot of mean prednisolone dose reduction





## **Legends for Supplementary Material**

Supplementary Methods: Search terms and coding manual of modified Newcastle-Ottawa quality assessment scale for cohort studies

Supplementary Table S1: Modified Newcastle-Ottawa quality assessment scale included studies

Supplementary Figure S1: Funnel plot of proportion of participants achieving MGFA-PIS MM or better

Supplementary Figure S2: Funnel plot of proportion of participants achieving MGFA-PIS CSR or PR

Supplementary Figure S3: Funnel plot of mean prednisolone dose reduction