

The MG-Composite

MGFA Task Force, 2000

- “..encourages proposals to improve and validate (the QMGS) ...”
- “..specifically recommends studies to determine the value of “weighting” certain subscores..”
- “ ..evaluation and addition of other objective means of testing muscle strength is recommended.”

CONSTRUCTION OF AN EFFICIENT EVALUATIVE INSTRUMENT FOR MYASTHENIA GRAVIS: THE MG COMPOSITE

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Developing the Composite

- Compare performance of all items in QMGS, MG-MMT, MG-ADL used in MMF trials
- Select 10 best performing/relevant items
- Weight each item based on expert opinion

The MG Composite Items

- Ptosis, upward gaze (QMGS)
- Double vision, timed (QMGS)
- Eye closure (MMT)
- Talking, timed (QMGS)
- Chewing (ADL)
- Swallowing (ADL)
- Breathing (ADL)
- Neck flexion (MMT)
- Shoulder abduct (MMT)
- Hip flexion (MMT)

The Weighted MG Composite Items

Ptosis, upward gaze	> 60 seconds = 0	11–60 seconds = 1	1–10 seconds = 2	Spontaneous = 3
Double vision on lateral gaze, left or right	> 60 seconds = 0	11–60 seconds = 1	1–10 seconds = 3	Spontaneous = 4
Eye closure	Normal = 0	Mild weakness = 0	Moderate weakness = 1	Severe weakness = 2
Talking	Normal = 0	Intermittent slurring or nasal speech = 2	Constant slurring or nasal but can be understood = 4	Difficult to understand speech = 6
Chewing	Normal = 0	Fatigue with solid food = 2	Fatigue with soft food = 4	Gastric tube = 6
Swallowing	Normal = 0	Rare episode of choking = 2	Frequent choking necessitating changes in diet = 5	Gastric tube = 6
Breathing	Normal = 0	Shortness of breath with exertion = 2	Shortness of breath at rest = 4	Ventilator dependence = 9
Neck flexion	Normal = 0	Mild weakness = 1	Moderate weakness = 3	Severe weakness = 4
Shoulder abduction	Normal = 0	Mild weakness = 2	Moderate weakness = 4	Severe weakness = 5
Hip flexion	Normal = 0	Mild weakness = 2	Moderate weakness = 4	Severe weakness = 5
Total Score	0			50

“Choose 2” items protocol

- Which 2 MG symptoms of yours (past or present) do you consider the most important to treat?

“Choose 2” items

- Eyelid droop
- Double vision
- Face weakness (e.g. eye closure weakness)
- Trouble talking (slurred speech)
- Trouble chewing
- Trouble swallowing
- Trouble breathing (shortness of breath)
- Neck weakness
- Arm weakness
- Leg weakness

The next steps

- Validate the Composite prospectively
- At 6 months, compare with
 - Physician Global Assessment
 - Change in
 - “Choose 2” items
 - MG-MMT score
 - MG-QOL15
 - ADL