
Assessment Instruments for Your Patients with Myasthenia Gravis (MG)

Table of Contents

Reported by patient

Myasthenia Gravis Activities of Daily Living (MG-ADL): ~10 minutes
8-item outcome measure that reflects ocular, bulbar, respiratory, and limb symptoms and their impact on function¹⁻⁴

Myasthenia Gravis Quality of Life 15 (MG-QoL15r): ~2 minutes
15-item assessment of patient well-being and independence^{1,5,6}

Reported by patient and physician

Myasthenia Gravis Composite (MGC): <5 minutes
10-item weighted assessment of ocular, muscular, bulbar, and respiratory weaknesses^{1,7}

Reported by physician

Quantitative Myasthenia Gravis (QMG): ~30 minutes
13-item evaluation of ocular, facial, bulbar, gross motor, axial, and respiratory weaknesses^{1,8}

Myasthenia Gravis Activities of Daily Living (MG-ADL)¹⁻⁴

Estimated time to complete: ~10 minutes

	None=0	Mild=1	Moderate=2	Severe=3	
Talking	Normal	Intermittent slurring or nasal speech	Constant slurring or nasal speech, but can be understood	Difficult-to-understand speech	<input type="text"/>
Chewing	Normal	Fatigue with solid food	Fatigue with soft food	Gastric tube	<input type="text"/>
Swallowing	Normal	Rare episode of choking	Frequent choking necessitating changes in diet	Gastric tube	<input type="text"/>
Breathing	Normal	Shortness of breath with exertion	Shortness of breath at rest	Ventilator dependence	<input type="text"/>
Impairment of ability to brush teeth or comb hair	None	Extra effort, but no rest periods needed	Rest periods needed	Cannot do one of these functions	<input type="text"/>
Impairment of ability to arise from a chair	None	Mild, sometimes uses arms	Moderate, always uses arms	Severe, requires assistance	<input type="text"/>
Double vision	None	Occurs, but not daily	Daily, but not constant	Constant	<input type="text"/>
Eyelid droop	None	Occurs, but not daily	Daily, but not constant	Constant	<input type="text"/>

Total score

Patient name: _____

Date of birth: ____ / ____ / ____

Medical record number: _____

Date: ____ / ____ / ____

Myasthenia Gravis Foundation 15 (MG-QoL15r)^{1,5,6}

Estimated time to complete: ~2 minutes

	Not at all=0	Somewhat=1	Very much=2
I am frustrated by my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have trouble with my eyes because of my MG (eg, double vision)	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have trouble eating because of my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have limited my social activity because of my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
My MG limits my ability to enjoy hobbies and fun activities	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have trouble meeting the needs of my family because of my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have to make plans around my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I am bothered by limitations in performing my work (including work at home) because of my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have difficulty speaking due to my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have lost some personal independence because of my MG (eg, driving, shopping, running errands)	<input type="text"/>	<input type="text"/>	<input type="text"/>
I am depressed about my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have trouble walking due to my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have trouble getting around public places because of my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I feel overwhelmed by my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>
I have trouble performing my personal grooming needs due to my MG	<input type="text"/>	<input type="text"/>	<input type="text"/>

Patient name: _____

Date of birth: ____ / ____ / ____

Medical record number: _____

Date: ____ / ____ / ____

Total score

Myasthenia Gravis Composite (MGC)^{1,7}

Estimated time to complete: <5 minutes

Ptosis, upward ease (physician examination)	0=>45 seconds	1=11-45 seconds	2=1-10 seconds	3=Immediate	<input type="text"/>
Double vision on lateral gaze, left or right (physician examination)	0=>45 seconds	1=11-45 seconds	3=1-10 seconds	4=Immediate	<input type="text"/>
Eye closure (physician examination)	0=Normal	0=Mild weakness (can be forced open with effort)	1=Moderate weakness (can be forced open easily)	2=Severe weakness (unable to keep eye closed)	<input type="text"/>
Talking (patient history)	0=Normal	2=Intermittent slurring or nasal speech	4=Constant slurring or nasal speech but can be understood	6=Difficult-to-understand speech	<input type="text"/>
Chewing (patient history)	0=Normal	2=Fatigue with solid food	4=Fatigue with soft food	6=Gastric tube	<input type="text"/>
Swallowing (patient history)	0=Normal	2=Rare episode of choking or trouble swallowing	5=Frequent trouble swallowing (eg, necessitating change in diet)	6=Gastric tube	<input type="text"/>
Breathing (thought to be caused by MG)	0=Normal	2=Shortness of breath with exertion	4=Shortness of breath at rest	9=Ventilator dependence	<input type="text"/>

continued on other side

Subtotal score

Myasthenia Gravis Composite (MGC)^{1,7} (cont'd)

Estimated time to complete: <5 minutes

Neck flexion or extension (weakest) (physician examination)	0=Normal	1=Mild weakness	3=Moderate weakness (ie, ~50% weak \pm 15%)	4=Severe weakness	<input type="text"/>
Shoulder abduction (physician examination)	0=Normal	2=Mild weakness	4=Moderate weakness (ie, ~50% weak \pm 15%)	5=Severe weakness	<input type="text"/>
Hip flexion (physician examination)	0=Normal	2=Mild weakness	4=Moderate weakness (ie, ~50% weak \pm 15%)	5=Severe weakness	<input type="text"/>

Subtotal score
from 1st side

Subtotal score
from this side

Total score

Patient name: _____

Date of birth: ____ / ____ / ____

Medical record number: _____

Date: ____ / ____ / ____

Please note that "moderate weakness" for neck and limb items should be construed as weakness that equals roughly 50% \pm 15% of expected normal strength. Any weakness milder than that would be "mild" and any weakness more severe than that would be classified as "severe."

Quantitative Myasthenia Gravis (QMG)^{1,8}

Estimated time to complete: ~30 minutes

	None=0	Mild=1	Moderate=2	Severe=3	
Double vision on lateral gaze right or left (circle one), seconds	61	11-60	1-10	Spontaneous	<input type="text"/>
Ptosis (upward gaze), seconds	61	11-60	1-10	Spontaneous	<input type="text"/>
Facial muscles	Normal lid closure	Complete, weak, some resistance	Complete, without resistance	Incomplete	<input type="text"/>
Swallowing 4 oz of water (1/2 cup)	Normal	Minimal coughing or throat clearing	Severe coughing/choking or nasal regurgitation	Cannot swallow (test not attempted)	<input type="text"/>
Speech after counting aloud from 1 to 50 (onset of dysarthria)	None at 50	Dysarthria at 30-49	Dysarthria at 10-29	Dysarthria at 9	<input type="text"/>
Right arm outstretched (90-degree sitting), seconds	240	90-239	10-89	0-9	<input type="text"/>
Left arm outstretched (90-degree sitting), seconds	240	90-239	10-89	0-9	<input type="text"/>
Vital capacity, % predicted	≥80	65-79	50-64	<50	<input type="text"/>
Right-hand grip (men), kgW	≥45	15-44	5-14	0-4	<input type="text"/>
Right-hand grip (women), kgW	≥30	10-29	5-9	0-4	<input type="text"/>
Left-hand grip (men), kgW	≥35	15-34	5-14	0-4	<input type="text"/>
Left-hand grip (women), kgW	≥25	10-24	5-9	0-4	<input type="text"/>

continued on other side

Subtotal score

Quantitative Myasthenia Gravis (QMG)^{1,8} (cont'd)

Estimated time to complete: ~30 minutes

	None=0	Mild=1	Moderate=2	Severe=3	
Head lifted (45-degree supine), seconds	120	30-119	1-29	0	<input type="text"/>
Right leg outstretched (45-degree supine), seconds	100	31-99	1-30	0	<input type="text"/>
Left leg outstretched (45-degree supine), seconds	100	31-99	1-30	0	<input type="text"/>
					<input type="text"/>
					Subtotal score from 1st side
					<input type="text"/>
					Subtotal score from this side
					<input type="text"/>
					Total score

Patient name: _____

Date of birth: ____ / ____ / ____

Medical record number: _____

Date: ____ / ____ / ____

QMG assessment adapted from www.myasthenia.org/HealthProfessionals/EducationalMaterials.aspx.

The information on this page is intended as educational information for healthcare providers. It does not replace a healthcare provider's judgment or clinical diagnosis.

References: 1. Educational materials. Myasthenia Gravis Foundation of America website. <http://www.myasthenia.org/HealthProfessionals/EducationalMaterials.aspx>. Accessed October 6, 2017. 2. Muppidi S. Outcome measures in myasthenia gravis: incorporation into clinical practice. *J Clin Neuromuscul Dis*. 2017;18(3):135-146. doi:10.1097/CND.000000000000156. 3. Muppidi S, Wolfe GI, Conaway M, Burns TM; MG Composite and MG-QOL15 Study Group. MG-ADL: still a relevant outcome measure. *Muscle Nerve*. 2011;44(5):727-731. doi:10.1002/mus.22140. 4. Wolfe GI, Herbelin L, Nations SP, Foster B, Bryan WW, Barohn RJ. Myasthenia gravis activities of daily living profile. *Neurology*. 1999;52(7):1487-1489. doi:10.1212/WNL.52.7.1487. 5. Burns TM, Sadjadi R, Utsugisawa K, et al. International clinicometric evaluation of the MG-QOL15, resulting in slight revision and subsequent validation of the MG-QOL15r. *Muscle Nerve*. 2016;54(6):1015-1022. doi:10.1002/mus.25198. 6. Quality of life. Myasthenia Gravis Foundation of America website. <http://www.myasthenia.org/LivingwithMG/QualityofLife.aspx>. Accessed October 11, 2017. 7. Burns TM, Conaway MR, Sanders DB; on behalf of the MG Composite and MG-QOL15 Study Group. The MG composite: a valid and reliable outcome measure for myasthenia gravis. *Neurology*. 2010;74(18):1434-1440. doi:10.1212/WNL.0b013e3181dc1b1e. 8. Barohn RJ. *The Quantitative Myasthenia Gravis (QMG) Test: the Manual*. New York, NY: Myasthenia Gravis Foundation of America; 2000.