

Osserman Classification of Severity

Treatment options for myasthenia gravis (MG) are dependent on the disease stage based on the Osserman's classification.

- Specific anti-nicotinic acetylcholine receptor antibodies are found and are pathologically relevant for the disease in about 80%–85% of patients with MG. The thymus is impacted in most of these seropositive patients.
- Thymectomy is frequently advised for people with this kind of MG since it is thought that the thymus gland contributes to the generation of the autoantibodies that cause MG.
- MG may also be treated with non-specific immunosuppressive therapies such as corticosteroids, methotrexate, Ig, cyclosporine, plasmapheresis, and anti-cholinesterase inhibitors, depending on the disease stage determined by the Osserman classification.

Severity Scale: Osserman's

The Myasthenia Gravis Foundation of America (MGFA) has created a grading system that is extensively utilising in the clinical management of patients with MG and was primarily established for clinical trials (see table below).

Class	Clinical symptoms
I	Any ocular weakness; all other muscles function normally.
II	Mild weakness; may also have ocular muscle weakness of any severity.
IIa	Predominantly affecting limb or axial muscles, or both. May also have lesser involvement of oropharyngeal or respiratory or both.
IIb	Predominantly affecting oropharyngeal or respiratory muscles, or both. May also have lesser or equal involvement of limb or axial muscles or both.
III	Moderate muscle weakness affecting other than ocular muscles. May also have ocular muscle weakness of any severity.
IIIa	Predominantly affecting limb or axial muscles, or both. May also have lesser involvement of oropharyngeal or respiratory muscles or both.
IIIb	Predominantly affecting oropharyngeal or respiratory muscles, or both. May also have lesser or equal involvement of limb or axial muscles or both.
IV	Severe muscle weakness affecting other than ocular muscles. May also have ocular muscle weakness of any severity.
IVa	Predominantly affecting limb or axial muscles, or both. May also have lesser involvement of oropharyngeal or respiratory muscles or both.
IVb	Predominantly affecting oropharyngeal or respiratory muscles, or both. May also have lesser or equal involvement of limb or axial muscles, or both.
V	Defined by intubation, with or without mechanical ventilation, except when employed during routine postoperative management.

Repeated acetylcholine receptor-antibody assessments in patients with MG receiving immunosuppressive therapy provide information on clinical progress and can, therefore, support therapeutic choices.

References

1. Collins S et al. Anesthesia and perioperative considerations for patients with myasthenia gravis. AANA

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2. Helda AT et al. Repeated acetylcholine receptor antibody concentrations and association to clinical myasthenia

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