

Myasthenia Gravis Testing Algorithm

Patients with suspected Myasthenia Gravis (MG)

- Order the pediatric Myasthenia Gravis evaluation (994/MSO - Myasthenia Gravis, MML Test # 83371). Evaluation includes Acetylcholine Receptor (AChR) Binding Antibody and Modulating Antibody.
 - If the Modulating Antibody is positive, the Blocking Antibody will be performed at an additional charge.
 - If the Modulating Antibody is negative, the Blocking Antibody will not be performed.
- About 1/3 of MG patients have negative AChR Binding and Modulating Antibodies, but may have positive MUSK Antibody (Athena Requisition, Test # 470 - Done as Pass Thru with draw).
 - Use the Athena requisition form when ordering MUSK antibody.
- About 1% of MG patients have AChR Blocking Antibodies without detectable AChR Binding Antibodies.
 - If the initial MG Evaluation (994/MSO – Myasthenia Gravis, MML Test # 83371) is negative and MG is strongly suspected, AChR Blocking Antibody can be ordered as a separate test (994/MSO - ACHR Blocking, Quest Test # 34459) , but *do not* order Pediatric Myasthenia Gravis Evaluation and AChR Blocking Antibody at the same time as this could lead to test duplication.

Patients with suspected Myasthenia Gravis (MG) and Thymoma

- Order the adult Myasthenia Gravis Evaluation (8072/MGE). Evaluation includes AChR Binding Antibody, Modulating Antibody and Striational Antibody.
 - If the Modulating Ab is highly positive (90% AChR loss or greater), and Striational Ab is detected (any positive value), the antibody profile suggests a paraneoplastic basis, particularly thymoma, but sometimes other neoplasm, particularly carcinomas. In these cases, reflexive testing will be performed for CRMP-5-IgG (Western Blot), Voltage-Gated Calcium Channel (radioimmunoprecipitation), Ganglionic Neuronal AChR Ab and GAD65 Ab. One or more of these Abs are encountered in patients with neurologic autoimmunity associated with thymoma or lung carcinoma.

Patients with suspected Lambert-Eaton Myasthenic Syndrome

- Order the Myasthenia Gravis/LES Evaluation (994/MSO - Lambert Eaton, MML Test # 83370). Evaluation includes AChR Binding Antibody, Modulating Antibody, Striational Antibody, P/Q type Calcium Channel Antibody and N Type Calcium Channel Antibody.

Voltage-Gated Calcium Channel Abs (P/Q and N-types) are essentially never encountered with thymoma.