

<b>DATE:</b>	3 October 2023
<b>TO:</b>	All Physicians, Nurses, Laboratory Staff
<b>FROM:</b>	Special Chemistry Laboratory, University of Alberta Hospital
<b>RE:</b>	<b>Myasthenia Gravis (MG) Evaluation with Muscle Specific Kinase (MUSK) Autoantibody Reflex</b>

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### Key Message

- Effective October 3, 2023, the Special Chemistry Laboratory at the University of Alberta Hospital will implement a Muscle Specific Kinase (MUSK) autoantibody referred out testing reflex order for all patients with a negative Acetylcholine Receptor Antibody (ACHRQ) result (<0.25 nmol/L).

### Background

- ACHRQ is the first line serological test to aid in the diagnosis of autoimmune Myasthenia Gravis.
- MUSK is a second-order test that aids in the diagnosis of autoimmune MG when ACHRQ tests are negative (<0.25 nmol/L).
- Often 2 separate blood collections are currently arranged for MG serology.
- APL external send out medical staff wait for in province ACHRQ results, and will then manually approve ACHRQ negative results for MUSK Autoantibody send out to BC Neuroimmunology.
  - Post Connect Care Launch 6, test volumes and the TAT for ACHRQ testing increased due to the manual, laborious nature of the workflow.
- Alongside APL, the autoimmune MG Edmonton and Calgary physician groups are implementing an automatic reflex in Connect Care to minimize blood collections and improve the manual workflow.

### How this will impact you

- One blood collection (serum only) is required for ACHRQ and MUSK Myasthenia Gravis serology.
- The MUSK Autoantibody (Referred Test) LAB 9850 test code has been made lab orderable only.

### Action Required

- Continue to order Acetylcholine Receptor Antibody (ACHRQ) LAB 4593 in Connect Care or write the name of the test on the Alberta Precision Laboratories requisition.
- Do not use the BC Neuroimmunology requisition for initial MUSK autoantibody requests. This requisition is only reserved for neurologists with discrepant results/difficult cases that require further specialized testing.

### Questions/Concerns

- Dr. Kareena Schnabl, Biochemist, UAH Special Chemistry Laboratory, (780) 407-3186 or [Kareena.Schnabl@aplabs.ca](mailto:Kareena.Schnabl@aplabs.ca)



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**Approved by**

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*Effective September 1, 2023, APL has become the sole provider of all public lab services in Alberta. As a result, community lab services formally provided by DynaLIFE Medical Labs will become the responsibility of Alberta Precision Labs (APL). This change impacts all zones.*