IMMUNOLOGY

August 12, 2024

Myositis et cN-1A

Date effective: August 7, 2024

Background Information:

The Shared Health Immunology Laboratory at St Boniface Hospital introduced Myositis and Interstitial Lung Disease testing on October 1, 2022. We are pleased to announce the addition of anti cN-1A (Mup44) antibodies to both testing profiles.

Clinical Practice Change:

Previously referred to Mitogen Dx in Alberta, testing will now be performed by the Immunology Lab at St. Boniface Hospital using the same methodology - Line Immunoassay (LIA). This test provides qualitative in vitro determination of human antibodies of immunoglobulin classes IgG in patient serum.

cN-1A (Mup44, cN1A, NT5C1A, NT5c1A, NT5C1a)

The detection of anti-cN-1A antibodies enables diagnosis of the rare inclusion body myositis (IBM), a degenerative autoimmune disease of the muscles. IBM is the most common chronic-inflammatory myopathy in older patients. It leads to muscle weakness and muscle atrophy of muscles near and distant of the trunk. Anti-cN-1A-positive IBM patients show especially severe courses of this autoimmune disease and increased motor impairment including the eye, facial and respiratory muscles. Prevalence of anti-cN-1A antibodies for IBM amount to 33% and up to 76%, for polymyositis 0% to 14%, for dermatomyositis 0% to 21%, for Sjögren syndrome 0% to 23% and for systemic lupus erythematosus 0% to 14% depending on the study. **While autoantibodies against cN-1A for IBM are considered diagnostic, they are clinically irrelevant for other diseases. Also, anti-cN-1A antibodies are found in 5% of healthy persons.**

Myositis Profile
Mi-2α, Mi-2β, TIF1γ, MDA5, NXP2, SAE1, Ku, PM-Scl100, PM-Scl75, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro-52, and cN-1A.
Interstitial Lung Disease Profile
Mi-2α, Mi-2β, TIF1γ, MDA5, NXP2, SAE1, Ku, PM-Scl100, PM-Scl75, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro-52, cN-1A, Scl-70, CENP A, CENP B, RP11 and RP155 (RNA Polymerase III subunits), fibrillarin, NOR90, Th/To, and PDGFR (platelet derived growth factor).

*****Testing will be restricted to Specialists or via prior approval*****

References/Resources:

Test:	Laboratory Information Manual - Myositis Profile Laboratory Information Manual - Interstitial Lung Disease Profile
Delphic Code:	MYOP (Myositis Profile); ILDP (Interstitial Lung Disease Profile)
Sample:	Serum 1.0 ml
Normal Range:	Negative Note: Positive results will report with Weak, Moderate or Strong Intensity
Availability:	Weekdays (5-7day TAT)
Requisition:	Immunology Autoimmune Laboratory Requisition [R250-10-85 V02 – Effective Oct 1, 2022]

Patient Impact:

- TAT reduced from 14+ days

System Improvements:

- Improved sustainability
- Decreased operating costs

Contact Information:

- Dr. Ping Sun, Hematopathologist, Medical Director Hematology & Immunology, Shared Health Manitoba, (phone: 204-787-4682) psun@sharedhealthmb.ca
- Jason Warren, Immunology Technical Manager, Shared Health Manitoba, (phone: 204-471-0370) jwarren3@sharedhealthmb.ca