March 4, 2026

IMMUNOLOGY

Vasculitis (MPO/PR3)

Date effective: March 9, 2026

Clinical Practice Change:

The Shared Health Immunology Laboratory at St Boniface Hospital will be changing its testing platform for MPO and PR3 antibody testing.

Background Information:

MPO (Myeloperoxidase) and PR3 (Proteinase 3) are crucial ANCA markers for diagnosing small-vessel vasculitis, with high titers helping to differentiate these autoimmune conditions from mimics. PR3-ANCA is strongly associated with Granulomatosis with polyangiitis, while MPO-ANCA is often linked to Microscopic Polyangiitis, aiding in prognosis, disease monitoring, and predicting relapse.

Changes in Test Procedure:

1. Testing for MPO and PR3 will be changing from an ELISA to a Chemiluminescent (CLIA) method.
2. There is no change to current reflex algorithms for IFA ANCA results. Individual MPO, PR3 or both tests are reflexed to confirm a positive/indeterminate IFA ANCA result based on the observed pattern. MPO or PR3 can also be ordered as a standalone test to monitor antibody levels in patients with established vasculitis

References/Resources:

Test:	MPO Laboratory Information Manual - MPO
Delphic Code:	MPO
Delphic Labels:	CLIA
Sample:	Serum 1.0 ml (All CLIA tests can be performed on single 1.0ml aliquot)
Normal Range:	0.0 –20.0 AU/ml
Availability:	Weekdays (3-5day TAT)
Requisition:	Immunology Autoimmune Laboratory Requisition

Test:	PR3 Laboratory Information Manual - PR3
Delphic Code:	PR3
Delphic Labels:	CLIA
Sample:	Serum 1.0 ml (All CLIA tests can be performed on single 1.0ml aliquot)
Normal Range:	0.0 –24.9 AU/ml
Availability:	Weekdays (3-5day TAT)
Requisition:	Immunology Autoimmune Laboratory Requisition

Patient Impact:

- As no international reference serum exists for antibodies against MPO/PR3, the calibration and reporting are in arbitrary units (AU/ml). There is no linear correlation between the CLIA and ELISA methods. All patients being monitored will require rebaseline testing.
- Discrepancies observed for PR3 results may be explained by the fact that the current ELISA PR3 test kit uses a mixture of human native and human recombinant PR3 antigens while CLIA PR3 utilizes high-quality human native PR3 antigens only.

System Improvements:

1. Improved TAT
2. Improved specificity

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