### Lab Dept: Serology

### Test Name: ANCA PANEL FOR VASCULITIS

#### General Information

**Lab Order Codes:** VASCP

**Synonyms:** Anti-Myeloperoxidase Antibodies; Autoantibodies to Myeloperoxidase; MPO; P-ANCA; Perinuclear anti-neutrophil cytoplasmic antibody; Anticytoplasmic Autoantibodies; Antineutrophil Cytoplasmic Antibodies (ACPA); Cytoplasmic Neutrophil Antibodies; Perinuclear Antineutrophil Cytoplasmic Antibodies (pANCA); Wegener’s Granulomatosis (WG)

**CPT Codes:**
- 83516 x 2 – Immunoassay for analyte other than infectious agent antibody or infectious agent antigen; qualitative or semiquantitative, multiple step method
- 86255 – Cytoplasmic neutrophil antibodies screen (if appropriate)
- 86256 – Cytoplasmic neutrophil antibodies titer (if appropriate)

**Test Includes:** If myeloperoxidase (MPO) antibody or proteinase 3 (PR3) antibody is $\geq 0.4$ U, then cytoplasmic neutrophilic antibodies will be performed at an additional charge.

#### Logistics

**Test Indications:** Evaluating patients suspected of having autoimmune vasculitis, both Wegener’s granulomatosis and microscopic polyangiitis.

**Lab Testing Sections:** Serology – Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: VASC)

**Phone Numbers:**
- MIN Lab: 612-813-6280
- STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 3 – 5 days

**Special Instructions:** N/A

#### Specimen

**Specimen Type:** Blood
**Container:**  
SST (Gold, marble or red)

**Draw Volume:**  
3 mL (Minimum: 1.5 mL) blood

**Processed Volume:**  
1 mL (Minimum: 0.5 mL) serum

**Collection:**  
Routine blood collection

**Special Processing:**  
Lab Staff: Centrifuge specimen, remove serum aliquot into a plastic, screw-capped vial. Store and ship at refrigerated temperatures.

**Patient Preparation:**  
None

**Sample Rejection:**  
Gross hemolysis; gross lipemia; mislabeled or unlabeled specimens

### Interpretive

**Reference Range:**  

<table>
<thead>
<tr>
<th>Myeloperoxidase Antibodies, IgG</th>
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<tbody>
<tr>
<td>&lt;0.4 U</td>
<td>Negative</td>
</tr>
<tr>
<td>0.4 – 0.9 U</td>
<td>Equivocal</td>
</tr>
<tr>
<td>&gt; or = 1.0 U</td>
<td>Positive</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proteinase 3 Antibodies, IgG</th>
<th></th>
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<tbody>
<tr>
<td>&lt;0.4 U</td>
<td>Negative</td>
</tr>
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<td>Positive</td>
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</tbody>
</table>

Reference values apply to all ages.  

For ANCA reference ranges and test information see: [Cytoplasmic Neutrophil Antibodies](#).
Interpretation: Positive results for proteinase 3 (PR3) antineutrophil cytoplasmic antibodies (ANCA) and cANCA or pANCA are consistent with the diagnosis of Wegener's granulomatosis (WG), either systemic WG with respiratory and renal involvement or limited WG with more restricted end-organ involvement.

Positive results for MPL and ANCA and pANCA are consistent with the diagnosis of autoimmune vasculitis including microscopic polyangiitis (MPA) or pauci-immune necrotizing glomerulonephritis.

A positive result for PR3 ANCA or MPL ANCA has been shown to detect 89% of patients with active WG or MPA (with or without renal involvement) with fewer than 1% false-positive results in patients with other diseases.

Critical Values: N/A

Limitations: Sequential measurements of titers of antineutrophil cytoplasmic antibodies (cANCA) are useful to monitor the response to treatment in patients with Wegener's granulomatosis (WG). While titers often decrease following successful treatment, the results cannot be relied upon in all cases to determine the response to therapy. In individual patients, the titers of cANCA may not correlate well with response to treatment. The results of proteinase 3 (PR3) ANCA (an autoantibody with cANCA pattern) by EIA have not been shown to be useful for monitoring disease activity.

The ANCA vasculitis test panel cannot be relied upon exclusively to establish the diagnosis of autoimmune vasculitits (WG or microscopic polyangiitis [MPA]). Some patients with WG or MPA may not have measurable titer of antibodies detected by this panel of tests. Some of these patients have antibodies to other neutrophil antigens not included in the panel, eg, neutrophil elastase.

Methodology: MPO and PR3: Multiplex Flow Immunoassay  
ANCA: Indirect Immunofluorescence

References: Mayo Medical Laboratories, January 2018

Updates: 1/17/2018: Collection container update