

Division of Laboratory Medicine

Immunology

Anti-Neutrophil cytoplasmic antibody (ANCA)

General information

Anti-neutrophil cytoplasmic antibodies (ANCA) are found in several types of vasculitis. Samples for ANCA are initially tested by immunofluorescence on neutrophils. Positive samples are then further tested by multiplex flow immunoassay for specific antibodies against either proteinase 3 (PR3) or myeloperoxidase (MPO). In general, a classical c-ANCA pattern corresponds to PR3 reactivity whilst a perinuclear p-ANCA pattern corresponds to MPO reactivity. Atypical ANCA patterns do not usually correspond to either antigen. These tests are used to diagnose vasculitis and to monitor disease activity. Infections and autoimmunity can produce false positive tests reducing the specificity of ANCA testing.

Specimen transport: At room temperature

Repeat frequency: No more frequently than every four weeks, except when plasmapheresis is being done.

Special precautions: None

Laboratory information

Normal reference ranges: Neg

Volume and sample type: 4ml serum

Method: Immunofluorescence

Participation in EQA Scheme: UK NEQAS for Autoimmune Serology ANCA and GBM

Turnaround time (calendar days from sample receipt to authorised result): Median - 3

We will undertake urgent same day testing during laboratory opening hours provided that the laboratory is contacted by phone and the sample arrives before noon.

Clinical information

Indications for the test: ANCA testing is helpful in patients with vasculitis affecting the kidneys

Factors affecting the test: Positive ANA, i.e. the presence of other autoantibodies. False positives seen in infections.

Guidelines are provided in the following reference: Addendum to the International Consensus Statement on Testing and reporting of ANCA Am J Clin Pathol 2003; 120; 312-318

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(Last updated July 2023)