Paraneoplastic Neurological Syndromes Testing

**INDICATIONS FOR TESTING**

Patient presenting with symptoms that are suspicious for paraneoplastic neurological syndromes (PNS)

- **Known malignancy**
  - Yes
    - Test for antibodies suggested by clinical symptoms
    - Antibodies present
      - PNS confirmed
      - Evaluate for other possible complications related to cancer
        - Consider CSF and electrolyte testing, EMG, muscle biopsy, MRI/PET
      - PNS possible but evaluate for other disorders associated with neurologic symptoms (e.g., chronic infections, metabolic encephalopathy)
    - Antibodies negative
      - None
      - Evaluate with other neurologic testing (EMG, muscle biopsy, CT, MRI) to look for tumor and/or neurologic diagnosis
      - Positive
        - Acetylcholine Receptor Modulating Antibody
        - N-Type VGCC Antibody
        - AMPA Receptor Antibody, IgG by IFA with Reflex to Titer
        - GABA-BR Antibody, IgG by IFA with Reflex to Titer
        - MOG Antibody, IgG by IFA with Reflex to Titer
      - Negative
        - Reevaluate in 6 months or sooner depending on symptoms
        - PNS probably present, antibody negative syndrome
  - No
    - Test for antibodies that support clinical symptoms and type of tumor present
    - Antibodies present
      - PNS confirmed
      - Evaluate for other possible complications related to cancer
        - Consider CSF and electrolyte testing, EMG, muscle biopsy, MRI/PET
      - PNS probably present, antibody negative syndrome
    - Antibodies negative
      - None
      - Evaluate with other neurologic testing (EMG, muscle biopsy, CT, MRI) to look for tumor and/or neurologic diagnosis

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**Panel Antibody Tests Available**

(single antibody tests available at [http://www.arulab.com](http://www.arulab.com))

- **Paraneoplastic Reflexive Panel**
  - Panel includes
    - Purkinje Cell/Neuronal Nuclear IgG Screen
    - Neuronal Nuclear Antibody (ANNA) by IFA Titer, IgG
    - Purkinje Cell Antibody, Titer
    - Neuronal Nuclear Antibodies (Hu, Ri, Yo) by Immunoblot
    - Amphiphysin Antibody, IgG
    - CVZ.1 by IFA

- **Autoimmune Neurologic Disease Reflexive Panel**
  - Panel includes
    - Striated Muscle Antibodies, IgG with Reflex to Titer
    - N-methyl-D-Aspartate Receptor Antibody, IgG, Serum with Reflex to Titer
    - Glutamic Acid Decarboxylase Antibody
    - CVZ.1 Screen by IFA with Reflex to Titer
    - P/Q-Type Voltage-Gated Calcium Channel (VGCC) Antibody
    - Titin Antibody
    - Voltage-Gated Potassium Channel (VGKC) Antibody
    - Aquaporin-4 Receptor Antibody
    - Acetylcholine Receptor Binding Antibody
    - Paraneoplastic Antibodies (PCCA/ANNA) by IFA with Reflex to Titer and Immunoblot
    - Amphiphysin Antibody, IgG
    - Aquaporin-4 Receptor Antibody, IgG by IFA with Reflex to Titer
    - Leucine-Rich, Glioma-Inactivated Protein 1 Antibody, IgG by Reflex to Titer
    - Contactin-Associated Protein-2 Antibody, IgG with Reflex to Titer
    - Acetylcholine Receptor Modulating Antibody
    - N-Type VGCC Antibody
    - AMPA Receptor Antibody, IgG by IFA with Reflex to Titer
    - GABA-BR Antibody, IgG by IFA with Reflex to Titer
    - MOG Antibody, IgG by IFA with Reflex to Titer

- **Paraneoplastic Antibodies (Crickers)**
  - Panel includes
    - Purkinje Cell/Neuronal Nuclear IgG Screen
    - Neuronal Nuclear Antibody (ANNA) by IFA Titer, IgG
    - Purkinje Cell Antibody, Titer
    - Neuronal Nuclear Antibodies (Hu, Ri, Yo) by Immunoblot

*Well-characterized antibodies*