References


Paraneoplastic neurological syndromes (PNS) are diseases that occur due to the remote effects of tumors (usually malignant). The most common tumors associated with PNS include small-cell lung cancer (SCLC), thymoma, neuroblastoma, Hodgkin lymphoma, and ovarian, breast, and testicular cancer. Researchers believe PNS is caused by cancer-fighting abilities of the immune system, in particular antibodies and specific white blood cells, known as T cells. Instead of attacking only the cancer cells, these immune agents attack the normal cells of the nervous system and cause neurological disorders.

When to Order Testing
- Neurologic disease with high suspicion of malignancy or known risk factors for malignancy
- Neurologic disease of unknown etiology without evidence of malignancy

Importance of Testing
- Aids in the diagnosis of paraneoplastic neurological disease associated with certain cancers (i.e., carcinoma of lung, breast, and ovary, thymoma, and Hodgkin lymphoma) and/or related disorders, such as autoimmune encephalitis
- Directs a focused search for cancer
- Differentiates autoimmune neuropathies from neurotoxic effects of chemotherapy
- Monitors the immune response of seropositive patients in the course of cancer therapy
- Detects early evidence of cancer recurrence in previously seropositive patients

Laboratory Testing

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<tr>
<th>test code</th>
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<tr>
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<td>Autoimmune Neuromuscular Junction Reflexive Panel</td>
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Benefits of PNS Testing at ARUP
- ARUP offers a comprehensive list of tests that represent autoantibodies found in approximately 85–90% of patients with PNS or other autoimmune neurological disorder (as standalone or in panels).1,2
- ARUP panels are directed at specific syndromes, allowing for more targeted testing than the large panels offered by competitors.
- Smaller directed panels and individual tests are more cost effective.

ARUP Consult Topic—PNS
Paraneoplastic Neurological Syndromes (PNS) and Associated Disorders.
arupconsult.com/content/paraneoplastic-neurological-syndromes-and-associated-disorders

3% of patients with SCLC are affected by Lambert-Eaton myasthenic syndrome (LEMS).

3% of patients with plasma cell disorders with malignant monoclonal gammopathy may be affected by paraneoplastic peripheral neuropathy.

15% of patients with myasthenia gravis (MG) have thymoma.