

[www.aruplab.com/
topics/PNS](http://www.aruplab.com/topics/PNS)

References

1. Horta ES, et al. Neural autoantibody clusters aid diagnosis of cancer. *Clin Cancer Res* 2014;20(14):3862–9.
2. Tebo AE, et al. Autoantibody diversity in paraneoplastic syndromes and related disorders: the need for a more guided screening approach. *Clin Chim Acta* 2016;459:162–9.
3. Graus F, et al. Recommended diagnostic criteria for paraneoplastic neurological syndromes. *J Neurol Neurosurg Psychiatry* 2004;75(8):1135–40.
4. Titulaer MJ, et al. Screening for tumours in paraneoplastic syndromes: report of an EFNS task force. *Eur J Neurol* 2011;18(1):19–e3.
5. Zuliani L, et al. Central nervous system neuronal surface antibody associated syndromes: review and guidelines for recognition. *J Neurol Neurosurg Psychiatry* 2012;83(6):638–45.
6. Didelot A, Honnorat J. Paraneoplastic disorders of the central and peripheral nervous system. In J Biller and JM Ferro, eds. *Neurologic aspects of systemic disease, part III, volume 121 (handbook of clinical neurology)*, 1st ed. Amsterdam: Elsevier; 2014:1159–79.



www.aruplab.com

ARUP LABORATORIES
500 Chipeta Way
Salt Lake City, UT 84108-1221
Phone: (800) 522-2787
Fax: (801) 583-2712

keyword: PNS

*A nonprofit enterprise of the University of
Utah and its Department of Pathology*

© 2017 ARUP Laboratories
BD-CS-046, Rev 0, March 2017

Paraneoplastic Neurologic Syndromes



testing at ARUP Laboratories





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

test code test name

2013955	Paraneoplastic Reflexive Panel
2013944	Autoimmune Neurologic Disease Reflexive Panel
2013601	Autoimmune Encephalitis Reflexive Panel
2005640	Autoimmune Neuromuscular Junction Reflexive Panel

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 neurologic 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

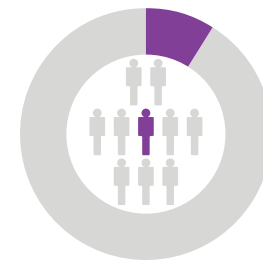


Paraneoplastic Neurological Syndromes (PNS) and Associated Disorders.
arupconsult.com/content/paraneoplastic-neurological-syndromes-and-associated-disorders

PNS incidence is rare.⁶

3%

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



~10% of patients who have plasma cell disorders with malignant monoclonal gammopathy may be affected by paraneoplastic peripheral neuropathy.

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

15%