

Overview

**Useful For**  
Monitoring serum pregabalin (Lyrica) concentrations, assessing compliance, and adjusting dosage in patients

**Method Name**  
Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS)

**NY State Available**  
Yes

Specimen

**Specimen Type**  
Serum

**Specimen Required**  
**Supplies:** Sarstedt Aliquot Tube, 5 mL (T914)  
**Collection Container/Tube:**  
Preferred: Red top  
**Acceptable:** Serum gel  
**Submission Container/Tube:** Plastic vial  
**Specimen Volume:** 1 mL  
**Collection Instructions:**  
1. Collect specimen immediately before next scheduled dose.  
2. Within 2 hours of collection, centrifuge, and aliquot serum into a plastic vial.

**Forms**  
If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:  
[-Therapeutics Test Request](#) (T831)  
[-Neurology Specialty Testing Client Test Request](#) (T732)

**Specimen Minimum Volume**  
0.5 mL

Reject Due To

|                 |    |
|-----------------|----|
| Gross hemolysis | OK |
| Gross lipemia   | OK |
| Gross icterus   | OK |

Specimen Stability Information

| Specimen Type | Temperature              | Time    | Special Container |
|---------------|--------------------------|---------|-------------------|
| Serum         | Refrigerated (preferred) | 28 days |                   |
|               | Ambient                  | 28 days |                   |
|               | Frozen                   | 28 days |                   |

Clinical & Interpretive

Clinical Information

Pregabalin (Lyrica) is an anticonvulsant drug used to treat partial seizures in patients and is a more potent successor to gabapentin. Pregabalin is commonly used for neuropathic pain and fibromyalgia. This test can be used by healthcare providers to assess compliance and may be clinically useful in patients with kidney failure who generally require lower dosages. Therapeutic and toxic ranges are not well defined. Therapeutic concentrations are reportedly 2 to 5 mcg/mL, while toxicity may occur at concentrations above 10 mcg/mL.

Reference Values

2.0-5.0 mcg/mL

Interpretation

The serum concentration should be interpreted in the context of the patient's clinical response and other clinical tests. This may provide useful information for patients showing poor response, noncompliance, or adverse effects. Toxicity can occur with concentrations greater than or equal to 10 mcg/mL.

Cautions

This test cannot be performed on whole blood.

Clinical Reference

1. Baselt R: Disposition of Toxic Drugs and Chemicals in Man. 10th ed. Biomedical Publications; 2014
2. Hiemke C, Bergemann N, Clement HW, et al. Consensus guidelines for therapeutic drug monitoring in neuropsychopharmacology: Update 2017. Pharmacopsychiatry. 2018;51(1-02):9-62

Performance

Method Description

The serum sample is diluted with an acetonitrile internal standard. The protein precipitate is centrifuged, and a portion of the supernatant is diluted with mobile phase 1 for detection by tandem mass spectrometry.(Unpublished Mayo method)

PDF Report

No

Day(s) Performed

Monday

Report Available

2 to 7 days

Specimen Retention Time

14 days

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Superior Drive

Fees & Codes

Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact [Customer Service](#).

Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

80299

LOINC® Information

| Test ID | Test Order Name | Order LOINC® Value |
|---------|-----------------|--------------------|
| PGN     | Pregabalin, S   | 47414-8            |

| Result ID | Test Result Name | Result LOINC® Value |
|-----------|------------------|---------------------|
| 65119     | Pregabalin, S    | 47414-8             |