

Rufinamide (Banzel) Drug Monitoring

Indications for Ordering

Optimize drug therapy and monitor patient adherence

Test Description

Quantitative liquid chromatography-tandem mass spectrometry

Tests to Consider

[Rufinamide, Serum or Plasma 2003176](#)

- Predose (trough) concentration at steady state should be assessed

Disease Overview

Clinical issues

Rufinamide is used as an adjunct in the treatment of

- Lennox-Gastaut syndrome
 - Adults
 - Children ≥ 4 years

Physiology

Mechanism of action – presumed to stabilize the sodium channel inactive state

- Limits repetitive firing of sodium-dependent action potentials

Drug profile

- Drug/drug interactions
 - Hormonal contraceptives are less effective when taken concurrently
 - Concomitant valproate administration leads to elevated concentrations of rufinamide
- Cardiac issues
 - Contraindicated in individuals with familial short QT syndrome
 - Caution should be used when administering rufinamide with other drugs that shorten the QT interval

Test Interpretation

Analytical sensitivity – 0.5 $\mu\text{g/mL}$

Results

- Concentration is reported
- Therapeutic and toxic ranges are not well established
 - Proposed range is 3.0-30.0 $\mu\text{g/mL}$ (when taking 800-7200 mg/day)