

# **Test Definition: TEMZS**

Temazepam and Oxazepam, Serum

# **Overview**

## **Useful For**

Assessing compliance

Monitoring for appropriate therapeutic level

Assessing temazepam toxicity

#### **Method Name**

Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS)

## **NY State Available**

Yes

# **Specimen**

## **Specimen Type**

Serum Red

## **Specimen Required**

Supplies: Sarstedt Aliquot Tube, 5 mL (T914)

Collection Container/Tube: Red top (Serum gel/SST are not acceptable)

Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL

Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

## **Specimen Minimum Volume**

0.3 mL

## **Reject Due To**

Gross	ОК
hemolysis	
Gross lipemia	OK
Gross icterus	OK

# **Specimen Stability Information**

Specimen Type	Temperature	Time	Special Container
Serum Red	Refrigerated (preferred)	28 days	



# **Test Definition: TEMZS**

Temazepam and Oxazepam, Serum

Ambient	28 days	
Frozen	28 days	

# **Clinical & Interpretive**

#### **Clinical Information**

Temazepam is US Food and Drug Administration-approved to treat insomnia (trouble with sleeping). It is typically taken short-term (approximately 7-10 days). It is a benzodiazepine, which are a class of medicines that are central nervous system depressants and slow down the nervous system. It is extensively metabolized via conjugation and *N*-demethylation to oxazepam. Its elimination half-life ranges from 3.5 to 18.4 hours.

## **Reference Values**

Therapeutic concentrations

Temazepam: 600-1100 ng/mL at 1 hour

Cutoff concentrations by liquid chromatography tandem mass spectrometry:

Temazepam: 10 ng/mL Oxazepam: 10 ng/mL

#### Interpretation

Suggested therapeutic serum temazepam concentrations range between 600 and 1100 ng/mL at 1-hour post-dose.

#### **Cautions**

No significant cautionary statements

#### **Clinical Reference**

- 1. Langman LJ, Bechtel LK, Holstege CP. Clinical toxicology. In: Rifai N, Chiu RWK, Young I, Burnham CAD, Wittwer CT, eds. Tietz Textbook of Laboratory Medicine. 7th ed. Elsevier; 2023:chap 43
- 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 internal standard mixture containing chlordiazepoxide-d5, diazepam-d5, nordiazepam-d5, oxazepam-d5, and temazepam-d5 is added to serum samples, mixed, and centrifuged. The supernatant is diluted and injected on a liquid chromatography tandem mass spectrometer. (Unpublished Mayo method)

#### PDF Report

No

## Day(s) Performed

Monday, Wednesday



# **Test Definition: TEMZS**

Temazepam and Oxazepam, Serum

# **Report Available**

3 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 <u>Test Prices</u> for detailed fee information.
- Clients without access to Test Prices can contact <u>Customer Service</u> 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact <u>Customer Service</u>.

## **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
TEMZS	Temazepam and Oxazepam, S	11024-7

Result ID	Test Result Name	Result LOINC® Value
623017	Temazepam	10343-2
623018	Oxazepam	3886-9