
Lab Dept: Chemistry

Test Name: BUPIVACAINE LEVEL

General Information

Lab Order Codes: BUPI

Synonyms: Marcaine®

CPT Codes: G0480 – Drug, test, definitive

Test Includes: Bupivacaine concentration measured in mcg/mL.

Logistics

Test Indications: Useful to monitor therapeutic concentration. Assessment of possible CNS or cardiac toxicity associated with use of bupivacaine or levobupivacaine.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: BUPIS)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 – 8 days, performed Monday

Special Instructions: [See Limitations](#)

Specimen

Specimen Type: Blood

Container: Red top NO GEL tube

Draw Volume: 4.5 mL (Minimum: 1.5 mL) blood

Processed Volume: 1.5 mL (Minimum: 0.5 mL) serum

Collection: Routine venipuncture

Special Processing:	Lab Staff: Centrifuge specimen, remove serum aliquot. Store and ship specimen at refrigerated temperatures. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive

Reference Range: No established reference values

Critical Values: N/A

Limitations: This assay is to be used for only serum drawn from a vein. Arterial levels are approximately twice venous levels and no clear relationship between arterial levels and toxicity has been established.

This assay measures only total bupivacaine; levels of the free (unbound) portion may correlate more closely with symptoms.

Methodology: Gas Chromatography-Mass Spectrometry (GC-MS)

References: [Mayo Medical Laboratories Web Page](#) (June 2014)

Updates: 5/18/2009: Mayo moved test from a forward to MedTox to being performed internally at MML. Previously test: 91093
1/7/2015: CPT update
2/2/2016: CPT update
11/16/16: Tube update to NO GEL, CPT update