MAYO CLINIC LABORATORIES

Test Definition: FBCFS

Barbiturates Confirmation, Serum

Reporting Title: Barbiturates Confirmation, S
Performing Location: NMS Labs

Specimen Requirements:

Only orderable as a reflex test.

Specimen Type	Temperature	Time	Special Container
Serum Red	Refrigerated (preferred)	14 days	
	Frozen	30 days	

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
Z5287	Butabarbital	Alphanumeric		18384-8
Z5288	Butalbital	Alphanumeric		82971-3
Z5290	Pentobarbital	Alphanumeric		82969-7
Z5291	Secobarbital	Alphanumeric		82968-9
Z5292	Phenobarbital	Alphanumeric		60468-6

LOINC® and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

80345
G0480 (if appropriate)

Reference Values:

Reporting limit determined each analysis.

Test	Result	Units
Butabarbital	None Detected	mcg/mL

Plasma concentrations of 2-3 mcg/mL produce sedation and plasma concentrations of 25 mcg/mL produce sleep in most patients. Plasma concentrations of greater than 30 mcg/mL may produce coma and plasma concentrations in excess of 50 mcg/mL are potentially lethal.

Butalbital	None Detected	mcg/mL

A single oral 100 mcg dose resulted in a mean peak blood concentration of 2.1 mcg/mL (range, 1.7-2.6 mcg/mL) at 2 hours, with a decline to 1.5 mcg/mL (range, 1.3-1.7 mcg/mL) by 24 hours. Potentially toxic at plasma concentrations greater than 10 mcg/mL.

Pentobarbital	None Detected	mcg/mL

Peak serum concentrations of 1.2-3.1 mcg/mL were produced 0.5-2.0 hours after a 100 mg oral dose and peak serum concentration of 3 mcg/mL were produced 6 min. following a 100 mg IV dose. Potentially toxic at blood concentrations greater than 10 mcg/mL.

Secobarbital	None Detected	mcg/mL

A 3.3 mg/kg oral dose (approx. 230 mg/70 kg) produced a mean peak blood concentration of 2.0 mcg/mL (range, 1.8-2.2 mcg/mL) at 3 hours, diminishing to 1.3 mcg/mL by 20 hours and 0.8 mcg/mL by 40 hours. Potentially toxic at blood concentrations greater than 8 mcg/mL.

Phenobarbital	None Detected	mcg/mL

Recommended serum concentration range during anticonvulsant therapy with primidone: 10-40 mcg/mL.