
Lab Dept: **Anatomic Pathology**

Test Name: **POSTMORTEM SCREENING**

General Information

Lab Order Codes: PMSB

Synonyms: SIDS evaluation; Metabolic autopsy; FAO Disorder screening

CPT Codes: 83789 – Mass spectrometry and tandem mass spectrometry

Test Includes: Reports of abnormal acylcarnitine profiles.

Logistics

Test Indications: Useful for Postmortem evaluation of infants or children who have died suddenly or unexpectedly. Testing is particularly recommended under the following circumstances: Family history of sudden infant death syndrome (SIDS) or other sudden unexpected deaths; Family history or Reye syndrome; Maternal complications of pregnancy; Lethargy, vomiting, fasting in the 48hrs prior to death; Allegation of child abuse; Macroscopic findings at autopsy (Fatty infiltration of the liver, Dilated or hypertrophic cardiomyopathy); or Autopsy evidence of infection that routinely would not represent a life-threatening event.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MMLTest: PMSBB)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 - 16 days

Special Instructions: [See Collection](#)

Specimen

Specimen Type: Blood and bile

Container: Heparin-containing tube for blood, Mayo Supply T525

Draw Volume: 50 uL of blood **and** 50 uL of bile (Minimum: 25 uL blood and 25 uL bile)

Processed Volume: N/A

Collection: Collect blood in a heparin-containing tube and collect bile by direct puncture of the gallbladder. Use Mayo Medical Laboratories "Postmortem Screening Card" (supply T525). Drop 25 uL of blood onto each circle on 1 end of the card. Drop 25 uL of bile onto each circle on the opposite end of the card. Allow the card to dry at ambient temperature in a horizontal position for 3 or more hours. Fill out information on page 2 of collection card.

- Do not expose specimen to heat or direct sunlight.
- Do not stack wet specimens.
- Keep specimen dry.

Special Processing: Lab Staff: Store and ship at room temperatures. Forward promptly.

Patient Preparation: None

Sample Rejection: Specimens other than blood and bile spots

Interpretive

Reference range: Quantitative results are compared to a constantly updated range, which corresponds to the 5-95 percentile interval of all postmortem cases brought to our attention.

Critical Values: N/A

Limitations: Both blood and bile specimens must be collected in order to detect and independently confirm the largest possible number of disorders.

In cases with a higher suspicion due to the recognition of 1 or more risk factors, collection of frozen liver and skin biopsy is also recommended for further testing and enzymatic/molecular studies.

In comparison to living individuals, profiles of postmortem blood specimens generally show a nonspecific increase of short chain species.

Patients with secondary carnitine deficiency may display uninformative acylcarnitine profiles in blood, but not in bile.

Methodology: Electrospray Tandem Mass Spectrometry (MS/MS)

References: [Mayo Medical Laboratories Web Page](#) January 2018