

---

**Lab Dept:**                      **Anatomic Pathology**

**Test Name:**                    **POSTMORTEM SCREENING**

---

***General Information***

**Lab Order Codes:**            PMSB

**Synonyms:**                    SIDS evaluation; Metabolic autopsy; FAO Disorder screening

**CPT Codes:**                  83788 – 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 (Test# 81931)

**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)

<b>Processed Volume:</b>	N/A
<b>Collection:</b>	<p>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.</p> <ul style="list-style-type: none"> <li>• Do not expose specimen to heat or direct sunlight.</li> <li>• Do not stack wet specimens.</li> <li>• Keep specimen dry.</li> </ul>
<b>Special Processing:</b>	Lab Staff: Store and ship at room temperatures. Forward promptly.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	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](#) February 2012