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**Lab Dept:** Chemistry

**Test Name:** GLUCOSE, PUMP

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***General Information***

**Lab Order Codes:** GLUCP

**Synonyms:** Blood Sugar, Pump

**CPT Codes:** 82947 – Glucose; quantitative, blood

**Test Includes:** Glucose concentration reported in mg/dL.

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***Logistics***

**Test Indications:** Useful for determining the glucose of the pump prime solution prior to certain procedures such as ECMO or heart surgery.

**Lab Testing Sections:** Chemistry

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 hour

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Whole blood, pump

**Container:** Heparin blood gas syringe

**Draw Volume:** 0.6 mL blood

**Processed Volume:** 0.2 mL blood

**Collection:** The specimen is collected from the ECMO pump.

Draw in an electrolyte-balanced heparin blood gas syringe. Immediately remove all air from syringe, remove needle, cap tightly, and mix. Send specimen in original tube. Forward promptly at ambient temperature only. Do not expose the specimen to air.

**Special Processing:** Lab Staff: **Do not** centrifuge. Specimen should be delivered to blood gas workstation for analysis.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimen; clotted specimen

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***Interpretive***

**Reference Range:** Reference ranges have not been established for pump samples.

**Critical Values:** All ages: <50 or >300 mg/dL

**Limitations:** Glucose concentrations are decreased by excess hemolysis, excess bilirubin and excess lipemia.

**Methodology:** Ion-Selective Electrode (ISE) by IRMA or Radiometer 825

**Contraindications:** This test is not indicated for general patient assessment.

**References:** Tietz (1999) Textbook of Clinical Chemistry, 3<sup>rd</sup> edition, Philadelphia, WB Saunders Co, p 750

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**Updates:** 8/19/2009: TAT previously listed as 2 hours.