
Lab Dept: Chemistry

Test Name: VENOUS BLOOD GAS (VBG), PUMP

General Information

Lab Order Codes: VBGP

Synonyms: Venous blood gas; Venous pump gas

CPT Codes: 82803 – Gases, blood, any combination of pH, pCO₂, pO₂, CO₂, HCO₃ (including calculated O₂ saturation)

Test Includes: VpH (no units), VpCO₂ and VpO₂ measured in mmHg, VsO₂ and VO₂AD measured in %, HCO₃ and BE measured in mmol/L, Temperature (°C) and ST (specimen type)

Logistics

Test Indications: Useful in determining venous oxygen saturation of the patient during 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: 30 minutes

Special Instructions: For use by ECMO or surgery only

Specimen

Specimen Type: Whole blood, pump

Container: **Preferred:** Sims Portex® syringe (PB151) or Smooth-E syringe (956-463)

Draw Volume: 0.4 mL (Minimum: 0.2 mL) blood

Note: Submission of 0.2 mL of blood does not allow for repeat analysis.

Processed Volume: 0.2 mL blood per analysis

Collection:	Specimen is obtained from the ECMO Pump Draw blood into blood gas syringe. Immediately remove all air from syringe, remove needle, cap tightly, and mix. Send in original collection device. Forward immediately at ambient temperature only. Do Not Expose Specimen To Air.
Special Processing:	Lab Staff: Do not centrifuge. Specimen should be delivered to blood gas workstation for analysis and analyzed within one hour of collection.
Patient Preparation:	None
Sample Rejection:	Clotted sample; mislabeled or unlabeled specimen; sample containing air

Interpretive

Reference Range:	N/A
Critical Values:	N/A
Limitations:	N/A
Methodology:	Ion-Selective Electrode, HCO ₃ and BE by calculation
Contraindications:	This test is not indicated for general patient assessment.
References:	Children's Hospitals and Clinics ECMO Program, October 2004
Update:	7/14/2005: Added clarification on draw volume for repeat analysis.