### Lab Dept: Chemistry

**Test Name:** VENOUS BLOOD GAS (VBG), PUMP

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#### 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)

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#### 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

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#### 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

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**Interpretive**

**Reference Range:**  N/A

**Critical Values:**  N/A

**Limitations:**  N/A

**Methodology:**  Ion-Selective Electrode, HCO3 and BE by calculation

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

**References:**

Children’s Hospitals and Clinics ECMO Program, October 2004

ABL90 FLEX Operator’s Manual from software version 3.1xx
Publication 201403 Edition H Code 995-656

**Update:**  7/14/2005: Added clarification on draw volume for repeat analysis.