

MEMO

September 17, 2021

Cord Blood Gas Order Changes

Effective September 22, 2021, the following changes are in place for ordering Cord Gas testing.

New Order Names

NEW ORDER	Old Order
pH Cord Arterial	pH Cord
pH Cord Venous	
Blood Gases Cord Arterial	Blood Gases Cord
Blood Gases Cord Venous	

Specimen Requirements

Specimen requirements are unchanged

- Sample volume: 1 mL
 - Due to the viscosity of cord blood, more sample is required by the analyzer than with other sources of blood gas testing
- Sample must be free of air bubbles and clots
- Stability: 30 minutes
 - Cord blood testing is validated for a maximum time of 30 minutes from collection to test initiation

Specimens may be sent to the laboratory via pneumatic tube system

New Reference Ranges for Cord Blood Gases

	Arterial	Venous	Critical Value(s)
pH	7.12 - 7.35	7.23 - 7.44	Low: 7.10, High: 7.50 (applies to both Arterial and Venous)
pO ₂ (mmHg)	6 - 28	16 - 40	
pCO ₂ (mmHg)	42 - 74	29 - 53	
Bicarbonate (mmol/L)	19 - 28	17 - 26	
Base Excess (mmol/L)	-9.3 to +1.5	-8.3 to +2.6	

New Charting

- Art or Ven will appear in the test name on the chart
- If the Arterial and Venous specimens are collected at the same time, they will no longer both appear in the same box

The screenshot displays a medical software interface for a patient named TESTCERT, BABY. The patient's age is 3 months, sex is Female, and the date of birth is 5/10/2021. The interface includes a navigation menu on the left with options like Orders, Future Orders, Inpatient Summaries, and Lab Acute. The main area shows a 'Navigator' with 'Blood Gas Results' selected, and a table of laboratory results for 'MPC Laboratory Review' dated 9/2/2021 at 9:20 CDT.

MPC Laboratory Review		9/2/2021 9:20 CDT
Blood Gas Results		
<input type="checkbox"/> pH Cord Art		7.30
<input type="checkbox"/> pCO2 Cord Art		60 mmHg
<input type="checkbox"/> pO2 Cord Art		25 mmHg
<input type="checkbox"/> HCO3 Cord Art		25 mmol/L
<input type="checkbox"/> Base Excess Cord Art		0.00 mmol/L
<input type="checkbox"/> O2 Sat Cord Art		95 %
<input type="checkbox"/> pH Cord Ven		7.40
<input type="checkbox"/> pCO2 Cord Ven		36 mmHg
<input type="checkbox"/> pO2 Cord Ven		36 mmHg
<input type="checkbox"/> HCO3 Cord Ven		25 mmol/L
<input type="checkbox"/> Base Excess Cord Ven		0.00 mmol/L
<input type="checkbox"/> O2 Sat Cord Ven		95 %

For questions or concerns please contact Dr. Deb Perry (402-354-4559) or Dr. George Bedrnicek (402-955-5528).