

On August 18th, orders and collection information for Blood Gas testing will change with a new workflow.

What is new and how does this affect us?

****NEW****

Beginning August 18th, the FIO2, Temperature, and specimen type will auto-fill in Beaker for you.

The screenshot displays the Epic EMR interface. On the left, the 'Outstanding List - DMCP2 LAB - Lab Outstanding List' is shown with a table of orders. The table has columns for M ID, C/Order ID, L Name, F, P, Test, S, A, D, L, R, H, G, TAT, and Remaining. The table lists several orders for 'Bugsy, Purple' and 'Chemistry, Test Three'. On the right, the 'Results' window is open for 'Bugsy, Purple (MRN 6153134)'. It shows patient information: 'F, 28 yrs, 7/11/1992', 'Coll. Dept: 1DMCP', and 'Location: DMCP2 01 ACE UNIT, D101, D101-A'. The 'Blood Gas, Arterial' results are displayed in a table with columns for Res, Component, Value, Units, I, A, L, I, E, R, Ref. Range, Method, Chart, Trend, and PV. The results include pH (7.390), PCO2 (39.9), PO2 (70.2), HCO3 (24.1), Base Excess (-0.7), Base Deficit, O2 SAT (94.3), FIO2 (21.0), and Temperature (99.0). The specimen type is listed as 'ARTERIAL'.

M ID	C/Order ID	L Name	F	P	Test	S	A	D	L	R	H	G	TAT	Remaining
200-224BG0011	9000110918	Autotest, Cherry			WHOLE BLOOD BOCL								-1d 22h 35m	1
200-224BG0011	9000110918	Autotest, Cherry			WH BLD GLUCOSE								-1d 22h 35m	1
200-224BG0011	9000110918	Autotest, Cherry			Total Hemogstn Wh...								-1d 22h 35m	1
200-225BG0001	9000111032	Hershey, Harvey			Lactate, Whole Blood								-1d 1h 29m	1
200-225BG0001	9000111032	Hershey, Harvey			Total Hemogstn Wh...								-1d 1h 29m	1
200-225BG0005	9000111080	Texas, Link A			COOIMETRY ARTER...								-1d 19m	1
200-225BG0007	9000111106	Propeller, Link A			COOIMETRY ARTER...								-21h 58m	1
200-225BG0008	9000111115	Bugsy, Purple			COOIMETRY ARTER...								-20h 43m	1
200-225G0003	9000111130	Chemistry, Test Three			Tropoin I								-8h 38m	1
200-225G0004	9000111131	Chemistry, Test Three			TSH, 3rd GENERATION								-5h 21m	1

Res	Component	Value	Units	I	A	L	I	E	R	Ref. Range	Method	Chart	Trend	PV
1	pH, Arterial	7.390								7.350-7.450	DMCP2 RAD1			7.390
1	PCO2, Arterial	39.9	MM HG							32.0-45.0	DMCP2 RAD1			39.9
1	PO2, Arterial	70.2	MM HG							83.0-108.0	DMCP2 RAD1			70.2
1	HCO3, Arterial	24.1	MMOL/L							21.0-28.0	DMCP2 RAD1			24.1
1	Base Excess, Arterial	-0.7	MMOL/L							-2.4-2.3	DMCP2 RAD1			-0.7
1	Base Deficit, Arterial		MMOL/L								DMCP2 RAD1			
1	O2 SAT, Arterial	94.3	%							94.0-98.0	DMCP2 RAD1			94.3
1	FIO2, Arterial	21.0	%								DMCP2 RAD1			21.0
1	Temperature, Arterial	99.0	F								DMCP2 RAD1			99.0
1	Temperature Corrected pH, Arterial									7.350-7.450	DMCP2 RAD1			7.390
1	TPCO2, Arterial	39.9	MM HG							32.0-45.0	DMCP2 RAD1			39.9
1	TPO2, Arterial	70.2	MM HG							83.0-108.0	DMCP2 RAD1			70.2
1	Specimen Type, Arterial		ARTERIAL								DMCP2 RAD1			ARTERIAL
1	Blood Gas, Arterial										DMCP2 RAD1			

What do I need to do?

1. Always check the outstanding screen to look for Temp, FIO2, and specimen type (It MUST match the specimen type on the order!)

- REMEMBER: The FIO2 and Temperature are OPTIONAL. If the information isn't there it is OK. The specimen type is a HARD STOP at collection. This should always be there.
- When testing, enter into Radiometer the information that has been provided to you.

**** NEW ****

The orders will specify the specimen type, but it also is a hard stop at collection. The specimen type drives the reference ranges.

- **IF THERE IS A DISCREPANCY WITH THE SPECIMEN TYPE AND THE ORDER IT MUST BE VERIFIED AND THE ORDER CORRECTED PRIOR TO TESTING!**

Example of order and specimen type matching:

The screenshot displays the Epic EMR interface for a patient named Bugsy, Purple (MRN 6153134). The patient is 28 years old, born on 7/11/1992, and is currently in the DMCP2 01 ACE UNIT, D101, D101-A. The specimen is identified as Blood Gas, Arterial, collected today at 1620 by Sheila Louise Blanton. The test results are as follows:

Res	Component	Value	Units	I	A	L	IE	R	Ref. Range	Method	Chart	Trend	PV
1	pH, Arterial	7.400							7.350-7.450	DMCP2 RAD1	→		7.390
1	PCO2, Arterial	35.0	MM HG						32.0-45.0	DMCP2 RAD1	→		39.9
1	PO2, Arterial	100.0	MM HG						83.0-108.0	DMCP2 RAD1	→		70.2
1	HCO3, Arterial		MMOL/L						21.0-28.0	DMCP2 RAD1	→		24.1
1	Base Excess, Arterial		MMOL/L						-2.4-2.3	DMCP2 RAD1	→		-0.7
1	Base Deficit, Arterial		MMOL/L							DMCP2 RAD1	→		
1	O2 SAT, Arterial		%						94.0-98.0	DMCP2 RAD1	→		94.3
1	FIO2, Arterial	21.0	%							DMCP2 RAD1	→		21.0
1	Temperature, Arterial	99.0	F							DMCP2 RAD1	→		99.0
1	Temperature Corrected pH, Arterial								7.350-7.450	DMCP2 RAD1	→		7.390
1	TPO2, Arterial		MM HG						32.0-45.0	DMCP2 RAD1	→		39.9
1	TPO2, Arterial		MM HG						83.0-108.0	DMCP2 RAD1	→		70.2
1	Specimen Type, Arterial	ARTERIAL								DMCP2 RAD1	→		ARTERIAL
1	Blood Gas Comment, Arterial									DMCP2 RAD1	→		

Method: DMCP2 RAD1
Last received: 8/13/2020 1620

NOTE: reference ranges have filled in for arterial blood gas.

Example of order and specimen type NOT matching

The screenshot shows an Epic EMR interface with the following details:

- Outstanding List - DMCP2 LAB - Lab Outstanding List - Upper: 0 of 2 selected, Lower: 1 of 1 selected**
- Order Summary:**
 - Order ID: 20D-224BG0010
 - Container ID: 9000110833
 - LI Name: Beaker, Beth
 - F.P. Test: Blood Gas, Arterial
 - Method: DMCP2 RAD2
 - Order: DMCP2
- Results:**
 - Instrument ID: 9000110901
 - Patient: Bugsy, Purple (MRN 6153134)
 - Location: DMCP2 01 ACE UNIT, D101, D101-A
 - Collected Today 1506 by Sheila Louise Blanton
 - Container: 1 Hep Syringe Draw type: Nurse Collection
- Test Results Table:**

Res	Component	Value	Units	I	A	L	IE	R	Ref. Range	Method	Chart	PV
1	PH, Venous	7.232							7.320-7.420	DMCP2 RAD2	→	→
1	PCO2, Venous	64.7	MM HG						None	DMCP2 RAD2	→	→
1	PO2, Venous	46.6	MM HG						21.0-28.0	DMCP2 RAD2	→	→
1	HCO3, Venous	27.2	MMOL/L						-2.4-2.3	DMCP2 RAD1	→	→
1	Base Excess, Venous		MMOL/L							DMCP2 RAD1	→	→
1	Base Deficit, Venous		MMOL/L							DMCP2 RAD1	→	→
1	O2 SAT, Venous	63.9	%						70.0-80.0	DMCP2 RAD2	→	→
1	FIO2, Venous	20	%							DMCP2 RAD1	→	→
1	Temperature, Venous	99.0	F							DMCP2 RAD1	→	→
1	Temperature Corrected PH, Venous	7.232								DMCP2 RAD2	→	→
1	TPCO2, Venous	64.7	MM HG							DMCP2 RAD2	→	→
1	TPO2, Venous	46.6	MM HG							DMCP2 RAD2	→	→
1	Specimen Type, Venous	ARTERIAL								DMCP2 RAD1	→	→
1	Blood Gas Comment, Venous									DMCP2 RAD1	→	→

NOTE: The specimen type was entered as ARTERIAL, but the order is for VENOUS. Look at the reference ranges – these are venous reference ranges!

What do I need to do?

- This should not be reported out. The order needs corrected.
- Pay attention to the specimen types PRIOR to performing the test to catch errors BEFORE results are posted

Ugh-Oh – the orders are correct but after running the respiratory therapist says it is wrong.

What do I do now?

- If after running the specimen type is noticed to be incorrect or it is expected to be ABG but the results show it is venous, you will need to follow what the RT / Nurse instructions are. (Whoever collected will make the decision)
- If they want the results: you will need to correct the order.
 - If the specimen is still OK for a re-run, you can re-run the specimen.
 - If the specimen is NOT OK for a re-run, correct the order and manually enter the results. Leave the report for review.
- If they do NOT want the results, place the order back for redraw with appropriate documentation.

Questions? PLEASE ASK!