



Wadsworth Center The Governor Nelson A. Rockefeller Empire State Plaza P.O. Box 509 Albany, New York 12201-0509

Antonia C. Novello, M.D., M.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

October 21, 1999

ERYTHROCYTE PROTOPORPHYRIN - PROFICIENCY TEST
SURVEY #3

Dear Laboratory Director:

Results of the second proficiency test event for **Erythrocyte Protoporphyrin (EP)** have been evaluated and graded. The test materials were prepared from whole goat blood. Five animals were dosed with lead acetate prior to the test to generate elevated EP levels. On August 30, 1999, approximately 400-mL of blood were drawn from each animal into separate plastic blood bags containing EDTA. Each animal yielded a separate pool with EP levels ranging from 34 $\mu\text{g/dL}$ to 131 $\mu\text{g/dL}$. Aliquots of whole blood were transferred into additive-free evacuated glass tubes and mailed to extraction participants August 31, 1999. The remaining blood was prepared for hematofluorometer (HF) participants with EP levels ranging from 42 $\mu\text{g/dL}$ to 122 $\mu\text{g/dL}$. To eliminate fluorescent artifacts, erythrocytes were separated from plasma, washed with normal saline and re-suspended in a citrate-glycerol solution. Aliquots of the blood-product were transferred into additive-free evacuated glass tubes and mailed to all HF participants September 14, 1999. To pass the proficiency for EP, a laboratory must maintain $\geq 80\%$ (4 out of 5) on at least two consecutive testing events, or two out of three consecutive testing events.

EXTRACTION METHOD

Target values are calculated using results from 14 participating laboratories. Your laboratory's individual performance record for EP-extraction over the last three surveys (or test events) will be mailed separately. The next PT event for the extraction method will be mailed **February 2, 2000**. Contact the State laboratory staff at (518) 473-0452 if the PT materials have not arrived within 5 days of the scheduled mailout date.

HEMATOFLUOROMETRY

Target values for AVIV instruments are calculated using results from 14 referee laboratories, and are given as $\mu\text{g/dL}$, assumed hct 35. Target values for Helena Protofluor-Z instruments are calculated using results from six referee laboratories, and are given as $\mu\text{mol ZPP/mol heme}$. Your laboratory's individual performance record for EP-hematofluorometer over the last three surveys (or test events) will be mailed separately. The next PT event for the hematofluorometer method will be mailed **February 16, 2000**. Contact the State laboratory staff at (518) 473-0452 if the PT materials have not arrived within 5 days of the scheduled mailout date.

Thank you for your participation.

Sincerely,

Patrick J. Parsons, Ph.D.
Section Head, Erythrocyte Protoporphyrin PT Program

enc.

New York State Department of Health

HF PROFICIENCY TEST RESULTS, SURVEY #3

Testing year 1999, dated 21 October 1999

PERFORMANCE OF PARTICIPATING LABORATORIES

LAB CODE	METHOD	RESULTS ($\mu\text{g/dL}$ whole blood, hct 35)					NORMALIZED MEAN
		99-11	-12	-13	-14	-15	
Target values:		65	64	42	77	122	
102	Aviv Hemat.	60	58	39	71	118	0.93
104	Aviv Hemat.	65	64	43	78	122	1.00
106	Aviv Hemat.	65	65	41	78	120	0.99
108	Aviv Hemat.	67	68	45	81	126	1.04
109	Aviv Hemat.	62	59	39	73	118	0.94
110	Aviv Hemat.	67	65	44	78	125	1.02
112	Aviv Hemat.	75	68	47	85	137	1.11
114	Aviv Hemat.	68	66	45	80	125	1.04
119	Aviv Hemat.	67	64	41	76	120	0.99
123	Aviv Hemat.	61	60	40	72	116	0.94
126	Aviv Hemat.	67	64	43	79	129	1.02
131	Aviv Hemat.	67	66	45	80	122	1.03
132	Aviv Hemat.	63	62	43	76	122	0.98
147	Aviv Hemat.	63	60	40	73	118	0.95
155	Aviv Hemat.	63	63	41	76	120	0.98
156	Aviv Hemat.	69	67	45	81	124	1.04
158	Aviv Hemat.	64	62	42	73	117	0.97
159	Aviv Hemat.	57	56	42	73	110	0.92
160	Aviv Hemat.	69	65	44	75	123	1.02
164	Aviv Hemat.	67	64	43	76	120	1.00
168	Aviv Hemat.	70	66	44	79	125	1.04
197	Aviv Hemat.	63	60	41	73	114	0.95
199	Aviv Hemat.	68	64	45	78	121	1.02
221	Aviv Hemat.	72	70	50 *	83	131	1.10
247	Aviv Hemat.	66	64	46	79	122	1.02
251	Aviv Hemat.	65	63	40	75	124	0.98
255	Aviv Hemat.	64	60	43	75	118	0.97
272	Aviv Hemat.	65	62	43	77	119	0.99
304	Aviv Hemat.	70	62	46	81	129	1.04
305	Aviv Hemat.	62	61	40	76	121	0.96
333	Aviv Hemat.	70	66	45	84	134	1.07

Percent satisfactory results for all participants: 99.4%

STATISTICAL SUMMARY

HF Proficiency Test #3. Testing year 1999. Report date: 21 October 1999

LAB CODE	METHOD	Reference laboratory results				
		RESULTS ($\mu\text{g/dL}$ whole blood, hct 35)				
		99-11	-12	-13	-14	-15
102	Aviv Hemat.	60	58	39	71	118
104	Aviv Hemat.	65	64	43	78	122
106	Aviv Hemat.	65	65	41	78	120
108	Aviv Hemat.	67	68	45	81	126
109	Aviv Hemat.	62	59	39	73	118
110	Aviv Hemat.	67	65	44	78	125
114	Aviv Hemat.	68	66	45	80	125
119	Aviv Hemat.	67	64	41	76	120
126	Aviv Hemat.	67	64	43	79	129
132	Aviv Hemat.	63	62	43	76	122
147	Aviv Hemat.	63	60	40	73	118
155	Aviv Hemat.	63	63	41	76	120
156	Aviv Hemat.	69	67	45	81	124
199	Aviv Hemat.	68	64	45	78	121
	Number of sample measurements:	14	14	14	14	14
	Mean (target value):	65	64	42	77	122
	Standard deviation:	2.7	2.9	2.2	3.0	3.4
	RSD (%):	4.1	4.6	5.3	3.9	2.8
	Acceptable range:					
	Upper limit	75	74	48	89	140
	Lower limit	55	54	36	65	104

SUMMARY OF RESULTS

	Number, mean and relative standard deviation for each sample														
	99 -11			-12			-13			-14			-15		
	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD
Reference	14	65	4	14	64	5	14	42	5	14	77	4	14	122	3
Evaluated (b)	17	66	7	17	63	5	17	44	6	17	77	5	17	122	6
All labs.	31	66	6	31	63	5	31	43	6	31	77	5	31	122	5