

Results of CDC Newborn Screening Proficiency Testing

Neonatal Screening Centers in Taiwan

Year : 2018 ; Quarter : 3

I. Routine Screening Items in Taiwan

Assay Item : TSH							
Lab	Sample 31861	Sample 31862	Sample 31863	Sample 31864	Sample 31865	Cut-Off	Unit
Lab 652	94.0(P)	89.0(P)	8.2	9.2	8.6	18.0	uU/ml
Lab 686	92.3(P)	89.9(P)	9.2	11.0	10.2	22	uU/ml
Lab 687	87.7(P)	94.5(P)	8.4	10.3	8.7	20.0	uU/ml
Expected value*	80.7(P)	80.7(P)	11	11.6	11	30	uU/ml

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : 17-OHP							
Lab	Sample 31861	Sample 31862	Sample 31863	Sample 31864	Sample 31865	Cut-Off	Unit
Lab 652	5.8	5.0	115.8(P)	8.4	101.2(P)	29	ng/ml
Lab 686	4.8	4.2	81.2(P)	4.3	82.7(P)	33	ng/ml
Lab 687	4.6	5.0	91.7(P)	8.1	82.8(P)	30.0	ng/ml
Expected value*	5.6	5.6	100.(P)	6.4	100.4(P)	35	ng/ml

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : TGal							
Lab	Sample 31861	Sample 31862	Sample 31863	Sample 31864	Sample 31865	Cut-Off	Unit
Lab 652	3.0	2.7	1.5	22.9(P)	1.5	15.0	mg/dL
Lab 686	1.7	1.5	1.2	19.5(P)	1.3	8	mg/dL
Lab 687	4.8	4.0	4.3	24.8(P)	4.2	12.0	mg/dL
Expected value*	3.7	3.7	2.9	25.9(P)	2.9	10	mg/dL

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : Phe							
Lab	Sample 31851	Sample 31852	Sample 31853	Sample 31854	Sample 31855	Cut-Off	Unit
Lab 652	74.7	64.7	390.6(P)	63.5	58.1	110	umol/L
Lab 686	72.0	65.0	225.0(P)	64.0	62.0	100	umol/L
Lab 687	77.5	71.1	410.0(P)	59.5	63.7	90.0	umol/L
Expected value*	75.7	66.6	409.8(P)	62.4	65	150	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : Leu							
Lab	Sample 31851	Sample 31852	Sample 31853	Sample 31854	Sample 31855	Cut-Off	Unit
Lab 652	118.1	172.4	123.3	820.3(P)	106.0	250	umol/L
Lab 686	88.0	134.0	87.0	636.0(P)	88.0	280	umol/L
Lab 687	80.0	119.2	79.8	319.8(P)	77.8	280.0	umol/L
Expected value*	83.9	128.8	79.3	773.8(P)	79.3	290	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : Val							
Lab	Sample 31851	Sample 31852	Sample 31853	Sample 31854	Sample 31855	Cut-Off	Unit
Lab 652	50.1	70.2	63.3	633.3(P)	55.9	300	umol/L
Lab 686	48.0	69.0	56.0	558.0(P)	55.0	280	umol/L
Lab 687	43.1	54.0	54.0	569.6(P)	75.4	250.0	umol/L
Expected value*	49.2	69.4	55.9	629.1(P)	54.5	300	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : Met							
Lab	Sample 31851	Sample 31852	Sample 31853	Sample 31854	Sample 31855	Cut-Off	Unit
Lab 652	192.9(P)	25.9	21.4	21.4	18.7	46.6	umol/L
Lab 686	168.0(P)	24.0	17.0	19.0	18.0	50	umol/L
Lab 687	196.1(P)	30.4	22.9	19.6	21.3	60.0	umol/L
Expected value*	204.4(P)	30	22.8	23.5	22.2	75	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : C3							
Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	21.9(P)	1.4	1.1	2.1	1.1	4.74	umol/L
Lab 686	19.8(P)	1.68	1.15	2.15	1.38	6	umol/L
Lab 687	21.05(P)	1.57	1.16	2.27	1.26	6.00	umol/L
Expected value*	21.52(P)	1.72	1.24	2.4	1.42	5.65	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : C5							
Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	0.22	0.16	2.51(P)	0.14	0.24	0.57	umol/L
Lab 686	0.19	0.16	2.51(P)	0.12	0.22	0.6	umol/L
Lab 687	0.27	0.18	2.98(P)	0.20	0.29	0.60	umol/L
Expected value*	0.24	0.18	2.99(P)	0.15	0.25	0.70	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : C5DC							
Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	0.03	0.03	0.03	0.04	0.03	0.27	umol/L
Lab 686	0.03	0.03	0.03	0.03	0.03	0.3	umol/L
Lab 687	0.02	0.02	0.02	0.02	0.02	0.30	umol/L
Expected value*	0.01	0.01	0.01	0.01	0.01	0.35	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : C6							
Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	0.17	1.12(P)	0.12	0.07	0.08	0.62	umol/L
Lab 686	0.18	1.32(P)	0.15	0.08	0.10	0.5	umol/L
Lab 687	0.19	1.02(P)	0.17	0.10	0.11	0.50	umol/L
Expected value*	0.22	1.54(P)	0.16	0.1	0.12	0.40	umol/L

Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	0.82	0.84	0.84	0.71	1.33	1.78	umol/L
Lab 686	0.83	1.0	0.98	0.82	1.52	2.3	umol/L
Lab 687	0.89	0.88	0.90	0.81	1.41	3.00	umol/L
Expected value*	1.01	1.06	0.98	0.84	1.73	2.30	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : C18:1							
Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	0.84	0.78	0.85	0.81	0.81	2.75	umol/L
Lab 686	0.75	0.82	0.88	0.85	0.85	3.2	umol/L
Lab 687	0.78	0.75	0.79	0.83	0.80	3.00	umol/L
Expected value*	0.73	0.73	0.73	0.73	0.73	3.50	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

III. Others

Assay Item : C3DC							
Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	■	■	■	■	■		umol/L
Lab 686	■	■	■	■	■		umol/L
Lab 687	0.05	0.05	0.05	0.05	0.04	0.30	umol/L
Expected value*	0.02	0.02	0.02	0.02	0.02	0.25	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : C4OH							
Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	■	■	■	■	■		umol/L
Lab 686	■	■	■	■	■		umol/L
Lab 687	0.07	0.08	0.10	0.07	0.08	0.66	umol/L
Expected value*	0.06	0.06	0.06	0.06	0.06	0.65	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

■ : The data is out of 95% upper/lower limit, or decision is different from CDC.

Assay Item : C18OH							
Lab	Sample 31811	Sample 31812	Sample 31813	Sample 31814	Sample 31815	Cut-Off	Unit
Lab 652	0.01	0.01	0.01	0.01	0.01	0.10	umol/L
Lab 686	0.01	0.01	0.01	0.01	0.01	0.3	umol/L
Lab 687	0.01	0.01	0.01	0.01	0.01	0.10	umol/L
Expected value*	0.00	0.00	0.00	0.00	0.00	0.10	umol/L

* : Expected values were determined by CDC.

(P) : The **positive** result assigned by the participants.

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[Preventive Medicine Foundation](#)



Address : Box 26-624 Taipei, Taiwan, 10699
TEL : +886-2-2703-6080 ; Fax : +886-2-2703-6070

E-mail : qa@nbs.tw

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