

# Results of CDC Newborn Screening Proficiency Testing

## Neonatal Screening Centers in Taiwan

Year : 2018 ; Quarter : 1

### I. Routine Screening Items in Taiwan

Assay Item : TSH							
Lab	Sample 11861	Sample 11862	Sample 11863	Sample 11864	Sample 11865	Cut-Off	Unit
Lab 652	96.4(P)	14.4	10.1	11.4	9.0	18.0	uU/ml
Lab 686	97.8(P)	14.7	10.6	15.6	10.1	22	uU/ml
Lab 687	96.1(P)	13.5	9.7	13.9	9.1	20.0	uU/ml
Expected value*	85.6(P)	16.7	11.6	16.7	11.7	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 11861	Sample 11862	Sample 11863	Sample 11864	Sample 11865	Cut-Off	Unit
Lab 652	5.0	4.0	14.0	3.2	95.0(P)	29	ng/ml
Lab 686	5.2	3.2	10.5	2.1	98.4(P)	33	ng/ml
Lab 687	4.3	3.5	9.1	3.5	80.9(P)	30.0	ng/ml
Expected value*	5.2	1.1	6.5	1.1	8.6(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 11861	Sample 11862	Sample 11863	Sample 11864	Sample 11865	Cut-Off	Unit
Lab 652	3.3	25.5(P)	1.3	24.2(P)	2.4	15.0	mg/dL
Lab 686	0.0	18.8(P)	0.0	22.5(P)	0.0	8	mg/dL
Lab 687	3.2	28.0(P)	3.9	23.0(P)	3.3	12.0	mg/dL
Expected value*	3.9	25.4(P)	2.5	25.4(P)	3.4	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 11851	Sample 11852	Sample 11853	Sample 11854	Sample 11855	Cut-Off	Unit
Lab 652	231.7(P)	59.8	60.1	50.6	52.6	110	umol/L
Lab 686	226.4(P)	67.1	61.4	50.5	48.5	100	umol/L
Lab 687	272.8(P)	68.2	64.7	49.9	52.0	90.0	umol/L
Expected value*	285.0(P)	60.0	60.0	47.6	47.6	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 11851	Sample 11852	Sample 11853	Sample 11854	Sample 11855	Cut-Off	Unit
Lab 652	243.9	220.9	228.9	203.3	214.7	250	umol/L
Lab 686	178.0	200.8	188.2	167.3	157.5	280	umol/L
Lab 687	150.8	157.3	144.8	128.9	129.2	280.0	umol/L
Expected value*	190.0	190.0	190.0	155.7	155.7	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 11851	Sample 11852	Sample 11853	Sample 11854	Sample 11855	Cut-Off	Unit
Lab 652	196.1	194.5	194.8	194.2	203.8	300	umol/L
Lab 686	185.4	209.5	193.4	188.0	181.8	250	umol/L
Lab 687	173.8	179.6	164.3	157.5	156.0	250.0	umol/L
Expected value*	180.3	180.3	180.3	165.9	165.9	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 11851	Sample 11852	Sample 11853	Sample 11854	Sample 11855	Cut-Off	Unit
Lab 652	13.5	13.6	160.9(P)	19.6	20.1	46.6	umol/L
Lab 686	14.6	15.5	163.5(P)	21.0	18.7	50	umol/L
Lab 687	19.6	20.9	198.6(P)	25.1	24.6	60.0	umol/L
Expected value*	14.8	14.8	214.8(P)	18.7	18.7	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 11811	Sample 11812	Sample 11813	Sample 11814	Sample 11815	Cut-Off	Unit
Lab 652	0.61	0.65	0.51	0.55	11.92(P)	4.74	umol/L
Lab 686	0.63	0.60	0.51	0.50	11.8(P)	5.5	umol/L
Lab 687	0.66	0.75	0.52	0.57	12.43(P)	6.00	umol/L
Expected value*	0.67	0.69	0.54	0.54	11.69(P)	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 11811	Sample 11812	Sample 11813	Sample 11814	Sample 11815	Cut-Off	Unit
Lab 652	0.05	0.08	0.03	0.03	0.08	0.57	umol/L
Lab 686	0.05	0.09	0.03	0.03	0.09	0.52	umol/L
Lab 687	0.06	0.13	0.07	0.05	0.13	0.60	umol/L
Expected value*	0.05	0.10	0.03	0.03	0.10	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 11811	Sample 11812	Sample 11813	Sample 11814	Sample 11815	Cut-Off	Unit
Lab 652	0.03	1.07(P)	0.04	0.03	0.03	0.27	umol/L
Lab 686	0.03	1.29(P)	0.05	0.04	0.04	0.38	umol/L
Lab 687	0.03	1.31(P)	0.01	0.01	0.01	0.30	umol/L
Expected value*	0.01	0.13(P)	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 11811	Sample 11812	Sample 11813	Sample 11814	Sample 11815	Cut-Off	Unit
Lab 652	0.91(P)	0.01	0.01	0.01	0.01	0.62	umol/L
Lab 686	1.2(P)	0.03	0.01	0.01	0.02	0.5	umol/L
Lab 687	1.02(P)	0.04	0.04	0.04	0.05	0.50	umol/L
Expected value*	1.12(P)	0.01	0.00	0.00	0.01	0.40	umol/L









Lab	Sample 11811	Sample 11812	Sample 11813	Sample 11814	Sample 11815	Cut-Off	Unit
Lab 652	0.42	0.58	0.52	0.54	0.61	1.78	umol/L
Lab 686	0.48	0.62	0.61	0.61	0.65	2.3	umol/L
Lab 687	0.54	0.71	0.61	0.63	0.65	3.00	umol/L
Expected value*	0.52	0.64	0.61	0.61	0.64	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 11811	Sample 11812	Sample 11813	Sample 11814	Sample 11815	Cut-Off	Unit
Lab 652	0.60	0.75	0.67	0.72	0.82	2.75	umol/L
Lab 686	0.62	0.77	0.77	0.76	0.82	3.2	umol/L
Lab 687	0.64	0.82	0.69	0.72	0.74	3.00	umol/L
Expected value*	0.65	0.84	0.77	0.77	0.84	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 11811	Sample 11812	Sample 11813	Sample 11814	Sample 11815	Cut-Off	Unit
Lab 652							umol/L
Lab 686							umol/L
Lab 687	0.07	0.06	0.05	0.05	0.05	0.30	umol/L
Expected value*	0.03	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 11811	Sample 11812	Sample 11813	Sample 11814	Sample 11815	Cut-Off	Unit
Lab 652							umol/L
Lab 686							umol/L
Lab 687	0.05	0.09	0.05	0.05	0.08	0.66	umol/L
Expected value*	0.06	0.11	0.05	0.05	0.11	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.

<b>Assay Item : C18OH</b>							
<b>Lab</b>	<b>Sample 11811</b>	<b>Sample 11812</b>	<b>Sample 11813</b>	<b>Sample 11814</b>	<b>Sample 11815</b>	<b>Cut-Off</b>	<b>Unit</b>
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	0.4	umol/L
Lab 687	0.01	0.01	0.01	0.01	0.01	0.20	umol/L
Expected value*	0.01	0.00	0.01	0.01	0.00	0.10	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.

[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](mailto:qa@nbs.tw)

updated : 15 Sep, 2018