

Newborn Screening Quality Assurance Program Biochemical Proficiency Testing Program Report 2023 Quarter 3 Report

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REPORT AUTHORIZATION

This report has been reviewed and authorized by Dr. Joanne Mei, Laboratory Chief, Newborn Screening Quality Assurance Program.

CONFIDENTIALITY STATEMENT

NSQAP participant information and evaluations are strictly confidential and shared only with individual participants, unless written authorization for release is received.

Event Summary

This report summarizes Proficiency Testing (PT) data received during the 2023 Quarter 3 Newborn Screening Quality Assurance Program's (NSQAP) PT event. Data were collected in the NSQAP participant portal. <https://nbs.dynamics365portals.us/>

On June 27, 2023, NSQAP distributed panels of five unknown dried blood spot (DBS) specimens to all active participants.

The hormone panel contained predetermined concentrations of thyroxine (T4), thyroid-stimulating hormone (TSH), 17 α -hydroxyprogesterone (17OHP), and total galactose (TGal). The amino acid panel contained arginine (Arg), citrulline (Cit), creatine (Cre), guanidinoacetic acid (GUAC), guanidinoacetate methyltransferase deficiency ratio (GAMTr), leucine (Leu), methionine (Met), phenylalanine (Phe), succinylacetone (SUAC), tyrosine (Tyr), and valine (Val). The acylcarnitine panel contained low free carnitine (C0(L)), low acylcarnitine (C2(L)), propionylcarnitine (C3), malonylcarnitine [derivatized] (C3DC), butyrylcarnitine (C4), hydroxybutyrylcarnitine [derivatized] (C4OH), malonylcarnitine + hydroxybutyrylcarnitine [non-derivatized] (C3DC+C4OH), isovalerylcarnitine (C5), tiglylcarnitine (C5:1), glutarylcarnitine (C5DC), hydroxyisovalerylcarnitine, (C5OH), hexanoylcarnitine, (C6), octanoylcarnitine(C8), decanoylcarnitine (C10), decenoylcarnitine (C10:1), decadienoylcarnitine (C10:2), myristoylcarnitine (C14), tetradecenoylcarnitine (C14:1), palmitoylcarnitine (C16), hydroxypalmitoylcarnitine (C16OH), stearoylcarnitine (C18), oleoylcarnitine (C18:1) and hydroxystearoylcarnitine (C18OH). Separate panels for biotinidase deficiency (BIOT), galactose-1-phosphate uridylyltransferase (GALT) deficiency, glucose-6-phosphate dehydrogenase (G6PD) deficiency, and immunoreactive trypsinogen (IRT) were sent to participating laboratories. We processed data from 416 laboratories.

Specimen Consensus

A consensus of 80% of US laboratories, as long as 10 or more US laboratories report results, must be reached for a specimen to be evaluated. If there were less than 10 US laboratories reporting results for any one specimen, all submitted results were evaluated. NSQAP occasionally challenges cutoff levels by enriching samples near cutoff levels. The NSQAP PT Committee closely reviews all specimen data. Specimens that were not evaluated are considered educational.

All specimens met the 80% criteria for the 2023 Q3 Biochemistry PT event.

Evaluations

NSQAP evaluated each specimen as “Acceptable” or “Unacceptable.” For each analyte and specimen, the participating laboratory’s assessment must match the CDC certified assessment to achieve an “Acceptable” evaluation. When assessments differ, the evaluation will be “Unacceptable.” NSQAP does not identify “Unacceptable” results as “false negative” or “false positive.” It is the responsibility of the laboratory to categorize “Unacceptable” results according to their protocols and policies.

Proficiency Testing Materials Preparation

NSQAP produces PT specimens from adult donor blood products and purchased umbilical cord blood, adjusted to 50% hematocrit before applying to filter paper. NSQAP tests PT specimens for homogeneity, accuracy, stability, and suitability for newborn screening assays.

- **Amino acid and acylcarnitine specimens** were enriched with commercially available standards. Small variances in enrichments and recoveries might result from impurities in the purchased materials.
 - **C0(L) and C2(L) PT deficient specimens** were produced by washing fresh RBCs at least six times then combining with charcoal-stripped plasma.
- **Congenital hypothyroid PT specimens** were enriched with measured amounts of T4 and TSH after reconstituting washed RBCs with purchased T4-depleted charcoal-stripped plasma.
- **TGal specimens** were enriched with galactose and galactose-1-phosphate, allowing measurement of free galactose (galactose alone) and total galactose (free galactose plus galactose-1- phosphate).
- **BIOT deficient PT specimens** were made using heat-treated charcoal-stripped plasma combined with compatible donor RBCs.
- **GALT and G6PD deficient PT specimens** were made using a 50/50 saline/serum solution combined with compatible washed RBCs and followed by heat-treatment.
- **IRT specimens** were made from washed, hematocrit-adjusted blood treated with a protease inhibitor then enriched with commercially purchased IRT.

Proficiency Testing Data Handling

Tables in this report include Specimen Certification, Frequency Distribution of Participants’ Clinical Assessments, Overall Statistics, and Mean Reported Concentration by Method. Individual laboratory data certification and evaluations are found in a separate report.

**Newborn Screening Quality Assurance Program
Specimen Certification
Year: 2023 Quarter: 3**

**Program: Amino Acids
Expected Values**

	Specimen				
	20233005001	20233005002	20233005003	20233005004	20233005005
Analyte	Expected Value				
Arg (µmol/L blood)	11.3	210.7	10.5	7.7	7.4
CRE	358.6	362.8	354.2	414.9	415.9
Cit (µmol/L blood)	163.0	13.0	12.4	5.1	5.1
GAMTr	3.9	3.9	4.0	2.2	2.4
GUAC	1.4	1.4	1.4	0.9	1.0
Leu (µmol/L blood)	30.2	30.9	30.2	20.4	20.1
Met (µmol/L blood)	4.2	4.3	4.2	202.6	2.8
Phe (µmol/L blood)	11.7	11.9	251.5	7.6	7.6
SUAC (µmol/L blood)	0.5	0.5	0.5	0.3	0.3
Tyr (µmol/L blood)	18.6	18.6	18.0	11.3	11.3
Val (µmol/L blood)	49.6	52.2	53.2	41.3	39.3

**Program: Amino Acids
Expected Clinical Assessments**

	Specimen				
	20233005001	20233005002	20233005003	20233005004	20233005005
Analyte	Expected Assessment				
Arg (µmol/L blood)	1	2	1	1	1
CRE	1	1	1	1	1
Cit (µmol/L blood)	2	1	1	1	1
GAMTr	1	1	1	1	1
GUAC	1	1	1	1	1
Leu (µmol/L blood)	1	1	1	1	1
Met (µmol/L blood)	1	1	1	2	1
Phe (µmol/L blood)	1	1	2	1	1
SUAC (µmol/L blood)	1	1	1	1	1
Tyr (µmol/L blood)	1	1	1	1	1
Val (µmol/L blood)	1	1	1	1	1

Note: Expected Value = sum of endogenous and enrichment values
Note: 1 = Within Normal Limits, 2 = Outside Normal Limits, NE = Not Evaluated

**Newborn Screening Quality Assurance Program
Specimen Certification
Year: 2023 Quarter: 3**

**Program: Acylcarnitines
Expected Values**

Analyte	Specimen				
	20233006001	20233006002	20233006003	20233006004	20233006005
Expected Value	Expected Value	Expected Value	Expected Value	Expected Value	Expected Value
C0(L) (µmol/L blood)	40.77	38.89	29.39	7.12	29.80
C2(L) (µmol/L blood)	28.60	27.91	24.51	4.94	24.79
C3 (µmol/L blood)	0.82	0.87	0.95	0.42	10.99
C3DC (µmol/L blood)	0.03	12.03	0.02	0.02	0.02
C3DC+C4OH (µmol/L blood)	0.04	12.04	0.03	0.02	0.03
C4 (µmol/L blood)	0.06	0.06	0.09	0.06	0.09
C4OH (µmol/L blood)	0.06	0.06	0.04	0.02	0.04
C5 (µmol/L blood)	0.05	0.05	0.05	0.03	0.05
C5:1 (µmol/L blood)	0.01	0.01	0.01	0.01	0.01
C5DC (µmol/L blood)	2.02	0.02	0.01	0.01	0.01
C5OH (µmol/L blood)	0.42	0.37	0.16	0.12	0.19
C6 (µmol/L blood)	0.02	0.02	1.32	0.01	0.01
C8 (µmol/L blood)	0.02	0.02	1.82	0.01	0.02
C10 (µmol/L blood)	0.01	0.01	1.11	0.01	0.01
C10:1 (µmol/L blood)	0.01	0.01	1.01	0.01	0.01
C10:2 (µmol/L blood)	0.00	0.00	0.00	0.00	0.00
C14 (µmol/L blood)	0.05	0.04	0.03	0.02	0.03
C14:1 (µmol/L blood)	0.02	0.02	0.02	0.02	0.02
C16 (µmol/L blood)	0.70	0.69	0.64	0.37	0.66
C16OH (µmol/L blood)	0.01	0.01	0.01	0.01	0.01
C18 (µmol/L blood)	0.54	0.54	0.54	0.32	0.56
C18:1 (µmol/L blood)	0.73	0.77	0.84	0.46	0.90
C18OH (µmol/L blood)	0.01	0.01	0.01	0.01	0.01

Note: Expected Value = sum of endogenous and enrichment values

**Newborn Screening Quality Assurance Program
Specimen Certification
Year: 2023 Quarter: 3**

**Program: Acylcarnitines
Expected Clinical Assessments**

	Specimen				
	20233006001	20233006002	20233006003	20233006004	20233006005
Analyte	Expected Assessment				
C0(L) (μmol/L blood)	1	1	1	2	1
C2(L) (μmol/L blood)	1	1	1	2	1
C3 (μmol/L blood)	1	1	1	1	2
C3DC (μmol/L blood)	1	2	1	1	1
C3DC+C4OH (μmol/L blood)	1	2	1	1	1
C4 (μmol/L blood)	1	1	1	1	1
C4OH (μmol/L blood)	1	1	1	1	1
C5 (μmol/L blood)	1	1	1	1	1
C5:1 (μmol/L blood)	1	1	1	1	1
C5DC (μmol/L blood)	2	1	1	1	1
C5OH (μmol/L blood)	1	1	1	1	1
C6 (μmol/L blood)	1	1	2	1	1
C8 (μmol/L blood)	1	1	2	1	1
C10 (μmol/L blood)	1	1	2	1	1
C10:1 (μmol/L blood)	1	1	2	1	1
C10:2 (μmol/L blood)	1	1	1	1	1
C14 (μmol/L blood)	1	1	1	1	1
C14:1 (μmol/L blood)	1	1	1	1	1
C16 (μmol/L blood)	1	1	1	1	1
C16OH (μmol/L blood)	1	1	1	1	1
C18 (μmol/L blood)	1	1	1	1	1
C18:1 (μmol/L blood)	1	1	1	1	1
C18OH (μmol/L blood)	1	1	1	1	1

Note: 1 = Within Normal Limits, 2 = Outside Normal Limits, NE = Not Evaluated

**Newborn Screening Quality Assurance Program
Specimen Certification
Year: 2023 Quarter: 3**

**Program: HORMPT
Expected Values**

	Specimen				
	20233001001	20233001002	20233001003	20233001004	20233001005
Analyte	Expected Value				
T4 (µg/dL serum)	10.0	10.0	1.5	10.0	10.0
TSH (µIU/mL serum)	0.0	0.0	90.0	0.0	0.0
17OHP (ng/mL serum)	85.0	0.0	0.0	0.0	0.0
TGal (mg/dL blood)	0.0	0.0	0.0	25.0	0.0

**Program: Hormones and Total Galactose
Expected Clinical Assessments**

	Specimen				
	20233001001	20233001002	20233001003	20233001004	20233001005
Analyte	Expected Assessment				
T4 (µg/dL serum)	1	1	2	1	1
TSH (µIU/mL serum)	1	1	2	1	1
17OHP (ng/mL serum)	2	1	1	1	1
TGal (mg/dL blood)	1	1	1	2	1

**Note: Expected Value = sum of endogenous and enrichment values
Note: 1 = Within Normal Limits, 2 = Outside Normal Limits, NE = Not Evaluated**

**Newborn Screening Quality Assurance Program
Specimen Certification
Year: 2023 Quarter: 3**

**Program: Immunoreactive Trypsinogen
Expected Values**

	Specimen				
	20233008001	20233008002	20233008003	20233008004	20233008005
Analyte	Expected Value				
IRT (ng/mL blood)	249.6	10.5	5.5	133.8	14.0

**Program: Immunoreactive Trypsinogen
Specimen Certification**

	Specimen				
	20233008001	20233008002	20233008003	20233008004	20233008005
Analyte	Expected Assessment				
IRT (ng/mL blood)	2	1	1	2	1

**Note: Expected Value = sum of endogenous and enrichment values
Note: 1 = Within Normal Limits, 2 = Outside Normal Limits, NE = Not Evaluated**

**Newborn Screening Quality Assurance Program
Specimen Certification
Year: 2023 Quarter: 3**

**Program: Biotinidase
Expected Clinical Assessments**

	Specimen				
	20233007001	20233007002	20233007003	20233007004	20233007005
Analyte	Expected Assessment				
BIOT	1	1	1	1	2

**Program: Galactose-1-phosphate Uridyltransferase
Expected Clinical Assessments**

	Specimen				
	20233009001	20233009002	20233009003	20233009004	20233009005
Analyte	Expected Assessment				
GALT	1	1	1	2	1

**Program: Glucose-6-phosphate Dehydrogenase Deficiency
Expected Clinical Assessments**

	Specimen				
	20233003001	20233003002	20233003003	20233003004	20233003005
Analyte	Expected Assessment				
G6PD	1	2	2	1	1

**Newborn Screening Quality Assurance Program
Frequency Distribution of Participants' Clinical Assessments
Year: 2023, Quarter 3**

**Program: Acylcarnitines (ACPT)
Domestic**

Analyte	Specimen Number									
	20233006001		20233006002		20233006003		20233006004		20233006005	
	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
C0(L)	0	46	0	46	0	46	45	1	0	46
C2(L)	0	20	0	20	0	20	18	2	0	20
C3	0	46	0	46	0	46	0	46	46	0
C3DC	0	10	10	0	0	10	0	10	0	10
C3DC+C4OH	0	30	30	0	0	30	0	30	0	30
C4	0	41	0	41	0	41	0	41	0	41
C4OH	0	8	0	8	0	8	0	8	0	8
C5	0	46	0	46	0	46	0	46	0	46
C5:1	0	45	0	45	0	45	0	45	0	45
C5DC	44	0	0	44	0	44	0	44	0	44
C5OH	5	39	6	38	0	44	0	44	0	44
C6	0	40	0	40	40	0	0	40	0	40
C8	0	46	0	46	46	0	0	46	0	46
C10	0	40	0	40	39	1	0	40	0	40
C10:1	0	38	0	38	38	0	0	38	0	38
C10:2	0	25	0	25	0	25	0	25	0	25
C14	0	40	0	40	0	40	0	40	0	40
C14:1	0	46	0	46	0	46	0	46	0	46
C16	0	45	0	45	0	45	0	45	0	45
C16OH	0	46	0	46	0	46	0	46	0	46
C18	0	37	0	37	0	37	0	37	0	37
C18:1	0	39	0	39	0	39	0	39	0	39
C18OH	0	35	0	35	0	35	0	35	0	35

**Newborn Screening Quality Assurance Program
Frequency Distribution of Participants' Clinical Assessments
Year: 2023, Quarter 3**

**Program: Acylcarnitines (ACPT)
International**

Analyte	Specimen Number									
	20233006001		20233006002		20233006003		20233006004		20233006005	
	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
C0(L)	2	242	2	242	1	243	220	24	1	243
C2(L)	5	194	4	195	3	196	148	51	3	196
C3	0	240	0	240	0	240	2	238	235	5
C3DC	1	70	70	1	2	69	1	70	0	71
C3DC+C4OH	1	104	103	2	1	104	1	104	1	104
C4	1	218	1	218	2	217	2	217	3	216
C4OH	2	65	9	58	1	66	1	66	1	66
C5	1	247	1	247	1	247	2	246	2	246
C5:1	0	210	2	208	1	209	0	210	0	210
C5DC	234	3	3	234	0	237	0	237	0	237
C5OH	43	165	45	163	0	208	1	207	0	208
C6	1	223	1	223	220	4	1	223	1	223
C8	0	249	0	249	248	1	0	249	0	249
C10	0	239	0	239	230	9	2	237	1	238
C10:1	0	207	0	207	202	5	0	207	0	207
C10:2	0	149	1	148	2	147	0	149	3	146
C14	1	227	2	226	1	227	1	227	1	227
C14:1	0	228	0	228	0	228	1	227	0	228
C16	0	228	0	228	0	228	3	225	2	226
C16OH	0	233	1	232	0	233	1	232	0	233
C18	0	220	0	220	0	220	1	219	0	220
C18:1	0	208	0	208	0	208	4	204	1	207
C18OH	1	190	1	190	1	190	1	190	1	190

**Newborn Screening Quality Assurance Program
Frequency Distribution of Participants' Clinical Assessments
Year: 2023, Quarter 3**

**Program: Acylcarnitines (ACPT)
Manufacturer**

Analyte	Specimen Number									
	20233006001		20233006002		20233006003		20233006004		20233006005	
	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
C0(L)	1	9	1	9	1	9	8	2	1	9
C2(L)	0	5	0	5	0	5	5	0	0	5
C3	0	10	0	10	0	10	0	10	10	0
C3DC	0	4	4	0	0	4	0	4	0	4
C3DC+C4OH	0	5	5	0	0	5	0	5	0	5
C4	0	10	0	10	0	10	0	10	0	10
C4OH	0	4	2	2	0	4	0	4	0	4
C5	0	10	0	10	0	10	0	10	0	10
C5:1	0	8	0	8	0	8	0	8	0	8
C5DC	10	0	0	10	0	10	0	10	0	10
C5OH	3	5	3	5	0	8	0	8	0	8
C6	0	10	0	10	10	0	0	10	0	10
C8	0	10	0	10	10	0	0	10	0	10
C10	0	10	0	10	10	0	0	10	0	10
C10:1	0	8	0	8	8	0	0	8	0	8
C10:2	0	8	0	8	0	8	0	8	0	8
C14	0	10	0	10	0	10	0	10	0	10
C14:1	0	8	0	8	0	8	0	8	0	8
C16	0	10	0	10	0	10	2	8	0	10
C16OH	0	9	0	9	0	9	0	9	0	9
C18	0	10	0	10	0	10	1	9	0	10
C18:1	0	8	0	8	0	8	1	7	0	8
C18OH	0	8	0	8	0	8	0	8	0	8

**Newborn Screening Quality Assurance Program
Frequency Distribution of Participants' Clinical Assessments
Year: 2023, Quarter 3**

**Program: Amino Acids (AAPT)
Domestic**

Analyte	Specimen Number									
	20233005001		20233005002		20233005003		20233005004		20233005005	
	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
ARG	0	36	36	0	0	36	0	36	0	36
CIT	42	0	0	42	0	42	1	41	1	41
CRE	0	4	0	4	0	4	0	4	0	4
GAMTr	0	3	0	3	0	3	0	3	0	3
GUAC	0	6	0	6	0	6	0	6	0	6
LEU	0	42	0	42	0	42	0	42	0	42
MET	0	42	0	42	0	42	42	0	0	42
PHE	1	48	1	48	49	0	1	48	1	48
SUAC	0	42	0	42	0	42	0	42	0	42
TYR	1	46	1	46	1	46	2	45	2	45
VAL	1	27	0	28	1	27	1	27	0	28

**Program: Amino Acids (AAPT)
International**

Analyte	Specimen Number									
	20233005001		20233005002		20233005003		20233005004		20233005005	
	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
ARG	0	198	196	2	0	198	0	198	1	197
CIT	218	1	1	218	0	219	2	217	3	216
CRE	0	6	0	6	0	6	0	6	0	6
GAMTr	0	2	0	2	0	2	0	2	0	2
GUAC	0	10	0	10	0	10	0	10	1	9
LEU	0	247	0	247	0	247	2	245	1	246
MET	3	237	3	237	5	235	238	2	3	237
PHE	2	295	2	295	286	11	3	294	5	292
SUAC	2	126	2	126	2	126	2	126	2	126
TYR	0	241	0	241	0	241	2	239	2	239
VAL	1	227	1	227	2	226	4	224	3	225

**Newborn Screening Quality Assurance Program
 Frequency Distribution of Participants' Clinical Assessments
 Year: 2023, Quarter 3**

**Program: Amino Acids (AAPT)
 Manufacturer**

	Specimen Number									
	20233005001		20233005002		20233005003		20233005004		20233005005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
ARG	0	10	10	0	0	10	0	10	0	10
CIT	10	0	0	10	0	10	0	10	0	10
LEU	0	12	0	12	0	12	0	12	0	12
MET	0	10	0	10	0	10	10	0	0	10
PHE	0	12	0	12	12	0	0	12	0	12
SUAC	0	9	0	9	0	9	0	9	0	9
TYR	0	10	0	10	0	10	0	10	0	10
VAL	0	10	0	10	0	10	0	10	0	10

**Newborn Screening Quality Assurance Program
Frequency Distribution of Participants' Clinical Assessments
Year: 2023, Quarter 3**

**Program: Biotinidase (BIOTPT)
Domestic**

	Specimen Number									
	20233007001		20233007002		20233007003		20233007004		20233007005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
BIOT	0	41	0	41	0	41	0	41	41	0

**Program: Biotinidase (BIOTPT)
International**

	Specimen Number									
	20233007001		20233007002		20233007003		20233007004		20233007005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
BIOT	0	163	1	162	0	163	1	162	162	1

**Program: Biotinidase (BIOTPT)
Manufacturer**

	Specimen Number									
	20233007001		20233007002		20233007003		20233007004		20233007005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
BIOT	0	5	0	5	0	5	0	5	5	0

**Newborn Screening Quality Assurance Program
 Frequency Distribution of Participants' Clinical Assessments
 Year: 2023, Quarter 3**

**Program: Galactose-1-phosphate Uridyltransferase (GALTPT)
 Domestic**

	Specimen Number									
	20233009001		20233009002		20233009003		20233009004		20233009005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
GALT	0	42	0	42	0	42	42	0	0	42

**Program: Galactose-1-phosphate Uridyltransferase (GALTPT)
 International**

	Specimen Number									
	20233009001		20233009002		20233009003		20233009004		20233009005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
GALT	0	100	0	100	1	99	98	2	0	100

**Program: Galactose-1-phosphate Uridyltransferase (GALTPT)
 Manufacturer**

	Specimen Number									
	20233009001		20233009002		20233009003		20233009004		20233009005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
GALT	0	3	0	3	0	3	3	0	0	3

**Newborn Screening Quality Assurance Program
 Frequency Distribution of Participants' Clinical Assessments
 Year: 2023, Quarter 3**

**Program: Glucose-6-phosphate Dehydrogenase (G6PDPT)
 Domestic**

	Specimen Number									
	20233003001		20233003002		20233003003		20233003004		20233003005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
G6PD	0	2	2	0	2	0	0	2	0	2

**Program: Glucose-6-phosphate Dehydrogenase (G6PDPT)
 International**

	Specimen Number									
	20233003001		20233003002		20233003003		20233003004		20233003005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
G6PD	0	87	86	1	86	1	1	86	1	86

**Program: Glucose-6-phosphate Dehydrogenase (G6PDPT)
 Manufacturer**

	Specimen Number									
	20233003001		20233003002		20233003003		20233003004		20233003005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
G6PD	0	4	4	0	4	0	0	4	0	4

**Newborn Screening Quality Assurance Program
Frequency Distribution of Participants' Clinical Assessments
Year: 2023, Quarter 3**

**Program: Hormones and Total Galactose (HORMPT)
Domestic**

	Specimen Number									
	20233001001		20233001002		20233001003		20233001004		20233001005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
TGAL	0	19	0	19	0	19	19	0	0	19
T4	0	19	0	19	19	0	0	19	0	19
TSH	0	42	0	42	41	1	0	42	0	42
17OHP	41	0	0	41	0	41	0	41	0	41

**Program: Hormones and Total Galactose (HORMPT)
International**

	Specimen Number									
	20233001001		20233001002		20233001003		20233001004		20233001005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
TGAL	1	140	1	140	1	140	134	7	1	140
T4	0	41	0	41	40	1	0	41	0	41
TSH	0	267	1	266	267	0	0	267	0	267
17OHP	222	2	0	224	0	224	0	224	2	222

**Program: Hormones and Total Galactose (HORMPT)
Manufacturer**

	Specimen Number									
	20233001001		20233001002		20233001003		20233001004		20233001005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
TGAL	0	6	0	6	0	6	6	0	0	6
T4	0	7	0	7	7	0	1	6	0	7
TSH	0	11	0	11	11	0	0	11	0	11
17OHP	9	0	0	9	0	9	0	9	0	9

**Newborn Screening Quality Assurance Program
 Frequency Distribution of Participants' Clinical Assessments
 Year: 2023, Quarter 3**

**Program: Immunoreactive Trypsinogen (IRTPT)
 Domestic**

	Specimen Number									
	20233008001		20233008002		20233008003		20233008004		20233008005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
IRT	42	0	0	42	0	42	42	0	0	42

**Program: Immunoreactive Trypsinogen (IRTPT)
 International**

	Specimen Number									
	20233008001		20233008002		20233008003		20233008004		20233008005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
IRT	168	1	0	169	0	169	165	4	0	169

**Program: Immunoreactive Trypsinogen (IRTPT)
 Manufacturer**

	Specimen Number									
	20233008001		20233008002		20233008003		20233008004		20233008005	
Analyte	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL	ONL	WNL
IRT	6	0	0	6	0	6	6	0	0	6

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Acylcarnitines (ACPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
C0(L) (µmol/L blood)	20233006001	297	40.77	37.74	6.08	18.37	57.13	
	20233006002	298	38.89	39.34	6.84	19.38	66.42	
	20233006003	297	29.39	28.14	4.87	13.72	48.44	
	20233006004	296	7.12	4.66	1.06	1.30	10.90	
	20233006005	297	29.80	28.59	5.38	7.30	49.37	
C2(L) (µmol/L blood)	20233006001	220	28.60	26.95	5.75	6.67	52.70	
	20233006002	219	27.91	27.47	5.30	10.16	53.10	
	20233006003	220	24.51	23.62	4.94	0.86	44.00	
	20233006004	220	4.94	3.47	1.07	1.28	9.47	
	20233006005	219	24.79	23.53	4.64	4.08	39.86	
C3 (µmol/L blood)	20233006001	292	0.82	0.83	0.16	0.45	1.62	
	20233006002	293	0.87	0.83	0.17	0.40	1.79	
	20233006003	293	0.95	1.01	0.21	0.08	1.97	
	20233006004	291	0.42	0.28	0.09	0.13	0.73	
	20233006005	292	10.99	11.20	2.14	1.60	20.77	
C3DC (µmol/L blood)	20233006001	84	0.03	0.04	0.04	0.00	0.19	
	20233006002	85	12.03	7.35	4.59	0.14	25.70	
	20233006003	84	0.02	0.05	0.04	0.00	0.20	
	20233006004	84	0.02	0.03	0.03	0.00	0.11	
	20233006005	84	0.02	0.03	0.03	0.00	0.15	
C3DC+C4OH (µmol/L blood)	20233006001	137	0.04	0.06	0.04	0.01	0.30	
	20233006002	137	12.04	2.50	1.03	0.54	5.56	
	20233006003	137	0.03	0.04	0.02	0.01	0.20	
	20233006004	138	0.02	0.02	0.01	0.00	0.13	
	20233006005	137	0.03	0.04	0.02	0.00	0.22	

Note: EV = Expected Value, SD= Standard Deviation. N < 3 not shown.

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Acylcarnitines (ACPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
C4 (µmol/L blood)	20233006001	267	0.06	0.07	0.03	0.00	0.25	
	20233006002	267	0.06	0.07	0.03	0.01	0.26	
	20233006003	264	0.09	0.12	0.06	0.03	0.45	
	20233006004	267	0.06	0.06	0.03	0.00	0.23	
	20233006005	266	0.09	0.11	0.06	0.03	0.70	
C4OH (µmol/L blood)	20233006001	77	0.06	0.07	0.03	0.00	0.18	
	20233006002	78	0.06	0.34	0.58	0.00	2.95	
	20233006003	78	0.04	0.05	0.04	0.00	0.22	
	20233006004	78	0.02	0.04	0.04	0.00	0.19	
	20233006005	78	0.04	0.06	0.04	0.00	0.21	
C5 (µmol/L blood)	20233006001	300	0.05	0.06	0.03	0.01	0.28	
	20233006002	299	0.05	0.06	0.03	0.01	0.29	
	20233006003	299	0.05	0.06	0.03	0.01	0.28	
	20233006004	300	0.03	0.03	0.03	0.00	0.26	
	20233006005	302	0.05	0.06	0.06	0.01	0.66	
C5:1 (µmol/L blood)	20233006001	260	0.01	0.02	0.02	0.00	0.13	
	20233006002	259	0.01	0.02	0.02	0.00	0.12	
	20233006003	259	0.01	0.01	0.02	0.00	0.09	
	20233006004	258	0.01	0.01	0.02	0.00	0.08	
	20233006005	260	0.01	0.02	0.02	0.00	0.11	
C5DC (µmol/L blood)	20233006001	289	2.02	1.91	0.67	0.23	4.14	
	20233006002	289	0.02	0.13	0.08	0.00	0.41	
	20233006003	287	0.01	0.04	0.03	0.00	0.18	
	20233006004	287	0.01	0.03	0.02	0.00	0.15	
	20233006005	287	0.01	0.03	0.03	0.00	0.15	

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Acylcarnitines (ACPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
C5OH (µmol/L blood)	20233006001	259	0.42	0.54	0.19	0.05	1.15	
	20233006002	259	0.37	0.54	0.19	0.07	1.15	
	20233006003	258	0.16	0.21	0.07	0.00	0.46	
	20233006004	259	0.12	0.23	0.12	0.00	0.51	
	20233006005	259	0.19	0.19	0.07	0.00	0.42	
C6 (µmol/L blood)	20233006001	268	0.02	0.03	0.02	0.00	0.14	
	20233006002	269	0.02	0.03	0.02	0.00	0.16	
	20233006003	271	1.32	1.42	0.22	0.76	2.10	
	20233006004	271	0.01	0.02	0.02	0.00	0.15	
	20233006005	268	0.01	0.02	0.02	0.00	0.13	
C8 (µmol/L blood)	20233006001	300	0.02	0.03	0.02	0.00	0.23	
	20233006002	302	0.02	0.03	0.02	0.00	0.14	
	20233006003	302	1.82	1.81	0.33	0.00	3.24	
	20233006004	301	0.01	0.02	0.02	0.00	0.16	
	20233006005	300	0.02	0.03	0.02	0.00	0.15	
C10 (µmol/L blood)	20233006001	282	0.01	0.02	0.02	0.00	0.12	
	20233006002	285	0.01	0.03	0.02	0.00	0.15	
	20233006003	286	1.11	0.75	0.17	0.31	1.46	
	20233006004	284	0.01	0.02	0.02	0.00	0.13	
	20233006005	285	0.01	0.03	0.02	0.00	0.15	
C10:1 (µmol/L blood)	20233006001	248	0.01	0.02	0.02	0.00	0.16	
	20233006002	246	0.01	0.02	0.02	0.00	0.13	
	20233006003	250	1.01	0.92	0.30	0.32	2.17	
	20233006004	250	0.01	0.02	0.02	0.00	0.13	
	20233006005	247	0.01	0.02	0.02	0.00	0.13	

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Acylcarnitines (ACPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
C10:2 (µmol/L blood)	20233006001	181	0.00	0.01	0.02	0.00	0.08	
	20233006002	181	0.00	0.01	0.02	0.00	0.12	
	20233006003	180	0.00	0.01	0.03	0.00	0.26	
	20233006004	179	0.00	0.01	0.01	0.00	0.09	
	20233006005	181	0.00	0.01	0.02	0.00	0.08	
C14 (µmol/L blood)	20233006001	274	0.05	0.06	0.02	0.02	0.19	
	20233006002	273	0.04	0.06	0.02	0.01	0.17	
	20233006003	271	0.03	0.03	0.02	0.00	0.15	
	20233006004	274	0.02	0.02	0.02	0.00	0.12	
	20233006005	274	0.03	0.03	0.02	0.00	0.16	
C14:1 (µmol/L blood)	20233006001	278	0.02	0.03	0.02	0.00	0.17	
	20233006002	277	0.02	0.03	0.02	0.00	0.14	
	20233006003	278	0.02	0.03	0.02	0.00	0.13	
	20233006004	278	0.02	0.02	0.01	0.00	0.09	
	20233006005	277	0.02	0.03	0.02	0.00	0.12	
C16 (µmol/L blood)	20233006001	282	0.70	0.81	0.14	0.37	1.30	
	20233006002	282	0.69	0.81	0.13	0.33	1.20	
	20233006003	282	0.64	0.75	0.12	0.30	1.11	
	20233006004	280	0.37	0.35	0.07	0.11	0.66	
	20233006005	281	0.66	0.75	0.12	0.40	1.13	
C16OH (µmol/L blood)	20233006001	283	0.01	0.01	0.01	0.00	0.07	
	20233006002	285	0.01	0.01	0.01	0.00	0.06	
	20233006003	285	0.01	0.01	0.01	0.00	0.06	
	20233006004	285	0.01	0.01	0.01	0.00	0.07	
	20233006005	283	0.01	0.01	0.01	0.00	0.07	

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Acylcarnitines (ACPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
C18 (μmol/L blood)	20233006001	265	0.54	0.61	0.11	0.01	0.98	
	20233006002	266	0.54	0.61	0.11	0.01	1.05	
	20233006003	265	0.54	0.62	0.12	0.01	1.10	
	20233006004	264	0.32	0.30	0.06	0.01	0.48	
	20233006005	266	0.56	0.62	0.12	0.00	1.18	
C18:1 (μmol/L blood)	20233006001	253	0.73	0.79	0.17	0.27	1.53	
	20233006002	252	0.77	0.79	0.17	0.01	1.27	
	20233006003	252	0.84	0.92	0.18	0.40	1.42	
	20233006004	253	0.46	0.39	0.09	0.00	0.74	
	20233006005	253	0.90	0.93	0.21	0.41	2.47	
C18OH (μmol/L blood)	20233006001	232	0.01	0.01	0.01	0.00	0.07	
	20233006002	231	0.01	0.01	0.01	0.00	0.05	
	20233006003	230	0.01	0.01	0.01	0.00	0.06	
	20233006004	230	0.01	0.00	0.01	0.00	0.05	
	20233006005	231	0.01	0.01	0.01	0.00	0.07	

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Amino Acids (AAPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
Arg (µmol/L blood)	20233005001	242	11.3	10.4	3.5	3.3	25.2	
	20233005002	244	210.7	153.0	38.3	8.4	265.4	
	20233005003	241	10.5	11.2	4.0	3.3	28.1	
	20233005004	243	7.7	7.3	2.9	2.2	21.0	
	20233005005	240	7.4	6.9	2.5	2.1	17.8	
CRE	20233005001	10	358.6	356.7	68.6	274.7	465.9	
	20233005002	10	362.8	355.5	51.7	276.0	430.0	
	20233005003	10	354.2	372.0	91.0	271.0	588.1	
	20233005004	10	414.9	427.4	103.7	293.0	624.4	
	20233005005	10	415.9	440.3	89.0	296.0	584.0	
Cit (µmol/L blood)	20233005001	271	163.0	149.2	22.7	77.1	228.0	
	20233005002	268	13.0	16.2	4.0	1.0	35.5	
	20233005003	267	12.4	13.2	2.5	5.2	20.8	
	20233005004	266	5.1	5.8	1.5	1.0	15.0	
	20233005005	266	5.1	5.8	1.5	1.9	13.4	
GUAC (µmol/L blood)	20233005001	16	1.4	1.5	0.7	0.7	3.5	
	20233005002	16	1.4	1.5	0.6	0.7	2.9	
	20233005003	16	1.4	1.5	0.8	0.6	3.9	
	20233005004	16	0.9	1.1	0.5	0.5	2.3	
	20233005005	16	1.0	1.7	2.7	0.6	11.8	

Note: EV = Expected Value, SD= Standard Deviation. N < 3 not shown.

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Amino Acids (AAPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
Leu (µmol/L blood)	20233005001	295	30.2	40.0	10.1	12.0	98.0	
	20233005002	297	30.9	41.0	11.9	13.7	102.6	
	20233005003	294	30.2	40.8	11.1	12.8	110.5	
	20233005004	299	20.4	28.5	18.1	3.8	178.0	
	20233005005	295	20.1	27.2	11.8	11.4	103.2	
Met (µmol/L blood)	20233005001	289	4.2	5.1	2.6	0.0	19.4	
	20233005002	290	4.3	5.2	2.7	1.4	22.1	
	20233005003	286	4.2	5.4	2.5	1.5	21.5	
	20233005004	290	202.6	148.7	28.4	41.4	255.2	
	20233005005	291	2.8	4.3	4.0	0.0	51.5	
Phe (µmol/L blood)	20233005001	353	11.7	15.8	26.5	0.0	488.0	
	20233005002	355	11.9	16.3	26.6	0.0	479.0	
	20233005003	353	251.5	226.2	60.0	148.5	1179.0	
	20233005004	350	7.6	12.8	23.7	0.0	406.0	
	20233005005	352	7.6	12.5	23.5	0.0	403.0	
SUAC (µmol/L blood)	20233005001	175	0.5	0.5	0.4	0.0	3.1	
	20233005002	175	0.5	0.5	0.4	0.0	2.5	
	20233005003	173	0.5	0.5	0.4	0.0	2.3	
	20233005004	174	0.3	0.5	0.6	0.0	5.2	
	20233005005	174	0.3	0.5	0.4	0.0	2.6	
Tyr (µmol/L blood)	20233005001	296	18.6	20.8	5.0	11.4	53.4	
	20233005002	294	18.6	20.7	5.0	11.6	58.2	
	20233005003	294	18.0	21.5	5.3	12.1	55.7	
	20233005004	294	11.3	14.2	5.1	6.2	50.8	
	20233005005	295	11.3	14.0	5.3	0.2	56.1	

Note: EV = Expected Value, SD= Standard Deviation. N < 3 not shown.

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Amino Acids (AAPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
Val (µmol/L blood)	20233005001	264	49.6	42.2	14.1	18.5	127.0	
	20233005002	263	52.2	42.5	13.4	23.7	117.0	
	20233005003	264	53.2	43.0	15.7	22.5	156.4	
	20233005004	263	41.3	30.1	14.0	14.5	124.1	
	20233005005	261	39.3	29.5	12.0	13.9	101.6	

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Hormones and Total Galactose (HORMPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
T4 (µg/dL serum)	20233001001	65	10.0	15.3	2.7	10.3	26.8	
	20233001002	65	10.0	13.9	2.4	9.5	21.3	
	20233001003	64	1.5	1.7	0.7	0.0	4.2	
	20233001004	65	10.0	16.0	2.9	11.1	25.7	
	20233001005	65	10.0	14.3	2.5	9.4	23.8	
TSH (µIU/mL serum)	20233001001	305	0.0	1.5	1.3	0.0	7.8	
	20233001002	301	0.0	1.1	1.4	0.0	7.5	
	20233001003	319	90.0	58.8	14.4	20.5	115.7	
	20233001004	306	0.0	2.3	1.5	0.0	9.1	
	20233001005	304	0.0	1.5	1.5	0.0	8.5	
17OHP (ng/mL serum)	20233001001	271	85.0	84.5	24.7	4.6	178.7	
	20233001002	259	0.0	1.7	1.6	0.1	12.0	
	20233001003	260	0.0	0.7	0.9	0.0	6.4	
	20233001004	259	0.0	1.6	1.6	0.0	14.2	
	20233001005	262	0.0	2.2	2.7	0.1	21.4	
TGal (mg/dL blood)	20233001001	159	0.0	1.3	1.3	0.0	7.0	
	20233001002	160	0.0	1.3	1.2	0.0	5.8	
	20233001003	158	0.0	1.2	1.0	0.0	5.2	
	20233001004	163	25.0	21.7	5.6	2.8	40.6	
	20233001005	160	0.0	1.3	1.3	0.0	5.9	

**Newborn Screening Quality Assurance Program
Overall Statistics
Year: 2023, Quarter 3**

Program: Immunoreactive Trypsinogen (IRTPT)

Analyte	Specimen Number	N	EV	Mean	SD	Min	Max	Comment
IRT (ng/mL blood)	20233008001	214	249.6	228.6	50.1	64.0	443.6	
	20233008002	209	10.5	10.7	3.2	0.0	28.9	
	20233008003	206	5.5	6.2	3.1	0.0	18.3	
	20233008004	215	133.8	129.8	31.8	49.8	296.3	
	20233008005	210	14.0	14.2	5.7	1.2	39.7	

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C0(L) (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	40.77	41.76	6.58	3	38.89	43.22	6.13	3	29.39	34.96	7.56	3	7.12	5.61	0.44	3	29.80	37.13	6.32
	Derivatized - MS/MS MassChrom® Chromsystems	16	40.77	35.67	8.42	16	38.89	35.85	7.89	16	29.39	27.61	6.98	15	7.12	4.43	1.69	16	29.80	27.94	6.52
	Derivatized - MS/MS non-kit	67	40.77	39.29	7.08	68	38.89	41.70	7.64	67	29.39	30.62	5.63	67	7.12	5.08	1.51	67	29.80	32.38	6.15
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	40.77	39.28	4.01	3	38.89	39.51	4.12	3	29.39	28.52	3.29	3	7.12	4.59	0.59	3	29.80	29.67	2.95
	Non-derivatized - MS/MS MassChrom® Chromsystems	32	40.77	38.15	6.19	32	38.89	39.47	6.61	32	29.39	27.73	3.85	32	7.12	4.71	0.95	32	29.80	27.64	4.15
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	44	40.77	36.38	5.03	44	38.89	38.49	6.16	44	29.39	26.72	3.73	44	7.12	4.34	0.64	44	29.80	26.91	3.21
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	87	40.77	37.91	5.02	87	38.89	39.04	4.85	87	29.39	27.68	3.34	87	7.12	4.60	0.68	87	29.80	27.46	4.16
	Non-derivatized - MS/MS non-kit	29	40.77	37.62	5.32	29	38.89	40.00	8.63	29	29.39	28.07	5.02	29	7.12	4.58	0.85	29	29.80	27.68	4.71
	Non-derivatized Labsystems Neomass AAAC Plus	10	40.77	31.30	5.09	10	38.89	31.17	6.75	10	29.39	21.92	4.58	10	7.12	4.20	1.08	10	29.80	23.05	4.70
Other	5	40.77	38.20	4.79	5	38.89	38.55	2.87	5	29.39	27.20	4.76	5	7.12	4.10	0.47	5	29.80	29.76	7.48	
C2(L) (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	28.60	29.61	4.07	3	27.91	31.34	2.34	3	24.51	28.23	3.67	3	4.94	4.39	0.38	3	24.79	25.92	3.46
	Derivatized - MS/MS MassChrom® Chromsystems	14	28.60	24.30	5.94	14	27.91	25.62	4.92	14	24.51	22.32	5.82	13	4.94	3.81	0.61	14	24.79	22.50	6.29
	Derivatized - MS/MS non-kit	57	28.60	29.41	7.88	56	27.91	29.58	6.97	57	24.51	25.83	5.83	57	4.94	4.34	1.38	56	24.79	25.09	6.39
	Non-derivatized - MS/MS MassChrom® Chromsystems	21	28.60	23.86	2.86	21	27.91	24.20	2.78	21	24.51	20.80	1.91	21	4.94	2.78	0.37	21	24.79	20.96	2.36
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	38	28.60	26.64	4.26	38	27.91	27.96	2.74	38	24.51	23.88	2.43	38	4.94	3.09	0.36	38	24.79	23.99	2.35
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	54	28.60	25.89	2.57	54	27.91	25.73	2.46	54	24.51	21.63	3.54	54	4.94	2.98	0.36	54	24.79	22.23	1.93
	Non-derivatized - MS/MS non-kit	21	28.60	29.33	6.80	21	27.91	30.60	7.76	21	24.51	26.25	6.76	21	4.94	3.44	1.04	21	24.79	25.39	5.48
	Non-derivatized Labsystems Neomass AAAC Plus	8	28.60	22.68	4.37	8	27.91	24.29	4.05	8	24.51	20.72	4.20	8	4.94	2.71	0.52	8	24.79	20.31	4.09
	Other	3	28.60	27.58	0.97	3	27.91	26.54	2.14	3	24.51	22.91	1.36	3	4.94	3.29	0.27	3	24.79	26.72	5.84

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C3 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.82	0.90	0.14	3	0.87	0.84	0.06	3	0.95	0.95	0.09	3	0.42	0.25	0.03	3	10.99	11.95	0.53
	Derivatized - MS/MS MassChrom® Chromsystems	16	0.82	0.77	0.16	16	0.87	0.75	0.14	16	0.95	0.97	0.28	15	0.42	0.24	0.07	16	10.99	9.45	1.50
	Derivatized - MS/MS non-kit	68	0.82	0.86	0.19	68	0.87	0.91	0.22	68	0.95	1.05	0.24	67	0.42	0.32	0.12	67	10.99	11.38	1.96
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	0.82	0.81	0.05	3	0.87	0.78	0.02	3	0.95	0.98	0.09	3	0.42	0.27	0.02	3	10.99	11.42	0.31
	Non-derivatized - MS/MS MassChrom® Chromsystems	29	0.82	0.69	0.11	29	0.87	0.68	0.09	29	0.95	0.83	0.09	29	0.42	0.22	0.03	29	10.99	9.34	1.24
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	44	0.82	0.75	0.10	44	0.87	0.76	0.10	44	0.95	0.92	0.12	44	0.42	0.24	0.03	44	10.99	10.65	1.25
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	86	0.82	0.88	0.10	86	0.87	0.87	0.11	86	0.95	1.06	0.12	86	0.42	0.29	0.05	86	10.99	12.01	1.73
	Non-derivatized - MS/MS non-kit	29	0.82	0.91	0.24	29	0.87	0.92	0.22	29	0.95	1.12	0.28	29	0.42	0.31	0.12	29	10.99	12.32	2.76
	Non-derivatized Labsystems Neomass AAAC Plus	9	0.82	0.80	0.24	10	0.87	0.74	0.21	10	0.95	0.95	0.29	10	0.42	0.28	0.09	10	10.99	11.26	3.60
Other	5	0.82	0.82	0.04	5	0.87	0.79	0.05	5	0.95	0.97	0.09	5	0.42	0.25	0.03	5	10.99	9.12	4.21	
C3DC (µmol/L blood)	Derivatized - MS/MS MassChrom® Chromsystems	12	0.03	0.05	0.03	12	12.03	11.42	6.51	12	0.02	0.06	0.04	12	0.02	0.04	0.03	12	0.02	0.03	0.02
	Derivatized - MS/MS non-kit	63	0.03	0.04	0.04	64	12.03	6.94	3.85	63	0.02	0.04	0.04	63	0.02	0.03	0.03	63	0.02	0.03	0.03
	Other	5	0.03	0.05	0.04	5	12.03	4.03	2.14	5	0.02	0.04	0.02	5	0.02	0.02	0.01	5	0.02	0.04	0.03
C3DC+C4OH (µmol/L blood)	Non-derivatized - MS/MS MassChrom® Chromsystems	12	0.04	0.06	0.08	11	12.04	1.39	0.46	12	0.03	0.04	0.05	12	0.02	0.03	0.03	12	0.03	0.05	0.06
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	35	0.04	0.05	0.01	35	12.04	2.09	0.38	35	0.03	0.04	0.02	35	0.02	0.02	0.01	35	0.03	0.04	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	68	0.04	0.06	0.01	68	12.04	2.91	0.84	68	0.03	0.04	0.01	68	0.02	0.02	0.01	68	0.03	0.04	0.01
	Non-derivatized - MS/MS non-kit	13	0.04	0.10	0.06	13	12.04	2.75	1.54	12	0.03	0.06	0.03	13	0.02	0.03	0.02	13	0.03	0.06	0.04
	Non-derivatized Labsystems Neomass AAAC Plus	6	0.04	0.04	0.00	7	12.04	1.11	0.31	7	0.03	0.05	0.05	7	0.02	0.02	0.01	6	0.03	0.04	0.03
	Other	3	0.04	0.15	0.12			

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C4 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.06	0.10	0.06	3	0.06	0.08	0.03	3	0.09	0.12	0.02	3	0.06	0.06	0.01	3	0.09	0.11	0.01
	Derivatized - MS/MS MassChrom® Chromsystems	14	0.06	0.06	0.02	15	0.06	0.06	0.02	14	0.09	0.15	0.10	15	0.06	0.07	0.04	16	0.09	0.14	0.16
	Derivatized - MS/MS non-kit	66	0.06	0.09	0.04	66	0.06	0.09	0.04	64	0.09	0.16	0.08	65	0.06	0.08	0.05	66	0.09	0.14	0.08
	Non-derivatized - MS/MS MassChrom® Chromsystems	24	0.06	0.06	0.02	24	0.06	0.07	0.02	24	0.09	0.10	0.02	24	0.06	0.06	0.02	24	0.09	0.10	0.02
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	41	0.06	0.08	0.03	41	0.06	0.08	0.03	41	0.09	0.11	0.03	41	0.06	0.07	0.03	41	0.09	0.11	0.03
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	78	0.06	0.06	0.02	78	0.06	0.06	0.01	78	0.09	0.09	0.04	78	0.06	0.05	0.01	77	0.09	0.09	0.02
	Non-derivatized - MS/MS non-kit	24	0.06	0.07	0.03	24	0.06	0.06	0.02	24	0.09	0.10	0.03	24	0.06	0.06	0.02	24	0.09	0.10	0.04
	Non-derivatized Labsystems Neomass AAAC Plus	10	0.06	0.06	0.02	9	0.06	0.06	0.03	9	0.09	0.08	0.03	10	0.06	0.06	0.03	9	0.09	0.08	0.03
Other	4	0.06	0.08	0.01	4	0.06	0.07	0.01	4	0.09	0.11	0.01	4	0.06	0.06	0.01	3	0.09	0.09	0.01	
C4OH (µmol/L blood)	Derivatized - MS/MS MassChrom® Chromsystems	10	0.06	0.08	0.03	10	0.06	0.21	0.13	10	0.04	0.05	0.03	9	0.02	0.04	0.03	10	0.04	0.06	0.02
	Derivatized - MS/MS non-kit	56	0.06	0.08	0.03	58	0.06	0.22	0.32	57	0.04	0.06	0.04	58	0.02	0.04	0.04	57	0.04	0.07	0.05
	Other	7	0.06	0.06	0.03	6	0.06	1.58	1.29	7	0.04	0.05	0.04	7	0.02	0.03	0.04	7	0.04	0.06	0.05
C5 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.05	0.13	0.13	3	0.05	0.07	0.02	3	0.05	0.08	0.05	3	0.03	0.04	0.01	3	0.05	0.06	0.02
	Derivatized - MS/MS MassChrom® Chromsystems	16	0.05	0.08	0.04	16	0.05	0.09	0.06	16	0.05	0.08	0.06	16	0.03	0.06	0.06	16	0.05	0.08	0.05
	Derivatized - MS/MS non-kit	69	0.05	0.07	0.03	69	0.05	0.07	0.04	69	0.05	0.06	0.04	69	0.03	0.04	0.03	69	0.05	0.07	0.05
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	0.05	0.06	0.01	3	0.05	0.06	0.01	3	0.05	0.05	0.01	3	0.03	0.02	0.00	3	0.05	0.05	0.00
	Non-derivatized - MS/MS MassChrom® Chromsystems	31	0.05	0.06	0.02	31	0.05	0.06	0.03	30	0.05	0.05	0.02	31	0.03	0.03	0.02	33	0.05	0.10	0.15
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	45	0.05	0.05	0.01	45	0.05	0.05	0.01	45	0.05	0.05	0.01	45	0.03	0.03	0.03	45	0.05	0.05	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	86	0.05	0.05	0.01	86	0.05	0.05	0.01	86	0.05	0.05	0.02	87	0.03	0.02	0.02	86	0.05	0.05	0.02
	Non-derivatized - MS/MS non-kit	32	0.05	0.06	0.02	32	0.05	0.06	0.02	32	0.05	0.05	0.02	32	0.03	0.03	0.01	32	0.05	0.05	0.02
	Non-derivatized Labsystems Neomass AAAC Plus	9	0.05	0.08	0.04	8	0.05	0.07	0.02	9	0.05	0.07	0.05	8	0.03	0.04	0.02	10	0.05	0.08	0.05
Other	5	0.05	0.07	0.02	5	0.05	0.05	0.03	5	0.05	0.06	0.02	5	0.03	0.04	0.03	4	0.05	0.06	0.03	

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C5:1 (µmol/L blood)	Derivatized - MS/MS MassChrom® Chromsystems	15	0.01	0.02	0.02	16	0.01	0.04	0.03	16	0.01	0.03	0.02	16	0.01	0.02	0.02	16	0.01	0.02	0.02
	Derivatized - MS/MS non-kit	62	0.01	0.03	0.02	61	0.01	0.03	0.02	63	0.01	0.02	0.02	61	0.01	0.02	0.02	61	0.01	0.02	0.02
	Non-derivatized - MS/MS MassChrom® Chromsystems	21	0.01	0.02	0.02	21	0.01	0.02	0.02	21	0.01	0.02	0.02	21	0.01	0.02	0.02	21	0.01	0.02	0.02
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	43	0.01	0.01	0.00	43	0.01	0.01	0.01	43	0.01	0.01	0.01	43	0.01	0.01	0.01	43	0.01	0.01	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	77	0.01	0.01	0.01	77	0.01	0.01	0.01	77	0.01	0.01	0.01	78	0.01	0.01	0.01	78	0.01	0.01	0.01
	Non-derivatized - MS/MS non-kit	24	0.01	0.02	0.03	24	0.01	0.02	0.03	23	0.01	0.02	0.02	22	0.01	0.01	0.02	23	0.01	0.02	0.02
	Non-derivatized Labsystems Neomass AAAC Plus	9	0.01	0.01	0.01	9	0.01	0.02	0.03	8	0.01	0.02	0.01	9	0.01	0.02	0.01	9	0.01	0.01	0.02
	Other	4	0.01	0.01	0.01	4	0.01	0.01	0.01	4	0.01	0.01	0.01	4	0.01	0.01	0.00	4	0.01	0.01	0.01
C5DC (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	2.02	3.35	0.84	3	0.02	0.03	0.01	3	0.01	0.06	0.06	3	0.01	0.01	0.01	3	0.01	0.02	0.01
	Derivatized - MS/MS MassChrom® Chromsystems	16	2.02	2.41	0.66	15	0.02	0.07	0.10	14	0.01	0.04	0.03	15	0.01	0.03	0.03	14	0.01	0.04	0.04
	Derivatized - MS/MS non-kit	69	2.02	1.29	0.57	69	0.02	0.03	0.03	69	0.01	0.03	0.03	68	0.01	0.02	0.03	69	0.01	0.03	0.03
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	2.02	1.93	0.25	3	0.02	0.22	0.04	3	0.01	0.03	0.01	3	0.01	0.02	0.01	3	0.01	0.03	0.01
	Non-derivatized - MS/MS MassChrom® Chromsystems	33	2.02	2.70	0.63	33	0.02	0.24	0.06	33	0.01	0.06	0.03	33	0.01	0.05	0.02	33	0.01	0.07	0.03
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	42	2.02	2.20	0.28	42	0.02	0.18	0.03	42	0.01	0.04	0.01	42	0.01	0.03	0.01	42	0.01	0.04	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	80	2.02	1.81	0.18	80	0.02	0.12	0.03	80	0.01	0.03	0.02	80	0.01	0.02	0.01	80	0.01	0.02	0.01
	Non-derivatized - MS/MS non-kit	29	2.02	2.05	0.62	30	0.02	0.17	0.08	30	0.01	0.04	0.02	30	0.01	0.03	0.02	30	0.01	0.04	0.02
	Non-derivatized Labsystems Neomass AAAC Plus	9	2.02	1.65	0.41	9	0.02	0.18	0.10	8	0.01	0.04	0.04	8	0.01	0.03	0.02	8	0.01	0.06	0.06
Other	4	2.02	2.11	0.53	4	0.02	0.12	0.08	4	0.01	0.03	0.01	4	0.01	0.02	0.01	4	0.01	0.03	0.02	

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C5OH (µmol/L blood)	Derivatized - MS/MS MassChrom® Chromsystems	16	0.42	0.38	0.11	16	0.37	0.41	0.12	15	0.16	0.17	0.06	16	0.12	0.13	0.05	16	0.19	0.16	0.05
	Derivatized - MS/MS non-kit	69	0.42	0.40	0.12	69	0.37	0.39	0.10	69	0.16	0.17	0.05	69	0.12	0.12	0.05	69	0.19	0.16	0.05
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	0.42	0.83	0.06	3	0.37	0.83	0.11	3	0.16	0.31	0.02	3	0.12	0.33	0.07	3	0.19	0.29	0.03
	Non-derivatized - MS/MS MassChrom® Chromsystems	16	0.42	0.43	0.09	16	0.37	0.44	0.09	16	0.16	0.18	0.09	16	0.12	0.21	0.05	16	0.19	0.16	0.04
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	39	0.42	0.54	0.10	39	0.37	0.55	0.10	39	0.16	0.20	0.06	39	0.12	0.25	0.05	39	0.19	0.19	0.04
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	74	0.42	0.70	0.15	74	0.37	0.71	0.14	74	0.16	0.25	0.05	74	0.12	0.35	0.09	74	0.19	0.24	0.05
	Non-derivatized - MS/MS non-kit	26	0.42	0.65	0.22	26	0.37	0.69	0.23	26	0.16	0.25	0.09	26	0.12	0.29	0.12	26	0.19	0.22	0.08
	Non-derivatized Labsystems Neomass AAAC Plus	9	0.42	0.32	0.10	9	0.37	0.33	0.11	9	0.16	0.12	0.06	9	0.12	0.13	0.08	9	0.19	0.12	0.07
	Other	4	0.42	0.58	0.15	4	0.37	0.61	0.14	4	0.16	0.24	0.05	4	0.12	0.24	0.09	4	0.19	0.24	0.08
C6 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.02	0.05	0.05	3	0.02	0.02	0.00	3	1.32	1.39	0.27	3	0.01	0.01	0.00	3	0.01	0.02	0.01
	Derivatized - MS/MS MassChrom® Chromsystems	15	0.02	0.04	0.02	15	0.02	0.04	0.03	15	1.32	1.35	0.32	15	0.01	0.03	0.03	15	0.01	0.04	0.03
	Derivatized - MS/MS non-kit	67	0.02	0.03	0.03	67	0.02	0.04	0.03	67	1.32	1.33	0.25	67	0.01	0.02	0.03	67	0.01	0.03	0.03
	Non-derivatized - MS/MS MassChrom® Chromsystems	25	0.02	0.02	0.02	25	0.02	0.02	0.02	25	1.32	1.42	0.21	25	0.01	0.01	0.02	25	0.01	0.02	0.02
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	42	0.02	0.02	0.02	42	0.02	0.02	0.02	42	1.32	1.48	0.14	42	0.01	0.01	0.02	41	0.01	0.02	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	78	0.02	0.02	0.01	78	0.02	0.02	0.01	79	1.32	1.49	0.13	79	0.01	0.01	0.01	78	0.01	0.01	0.01
	Non-derivatized - MS/MS non-kit	24	0.02	0.02	0.01	24	0.02	0.02	0.01	25	1.32	1.53	0.30	25	0.01	0.02	0.03	24	0.01	0.02	0.01
	Non-derivatized Labsystems Neomass AAAC Plus	8	0.02	0.02	0.01	9	0.02	0.03	0.03	9	1.32	1.15	0.22	9	0.01	0.01	0.01	9	0.01	0.02	0.02
	Other	4	0.02	0.02	0.01	4	0.02	0.02	0.00	4	1.32	1.42	0.09	4	0.01	0.01	0.01	4	0.01	0.02	0.01

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C8 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.02	0.03	0.02	3	0.02	0.02	0.01	3	1.82	1.81	0.25	3	0.01	0.01	0.01	3	0.02	0.01	0.01
	Derivatized - MS/MS MassChrom® Chromsystems	14	0.02	0.02	0.02	15	0.02	0.02	0.02	16	1.82	1.41	0.35	15	0.01	0.02	0.02	15	0.02	0.02	0.02
	Derivatized - MS/MS non-kit	69	0.02	0.04	0.04	69	0.02	0.04	0.03	68	1.82	1.88	0.33	69	0.01	0.02	0.03	68	0.02	0.04	0.03
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	0.02	0.02	0.01	3	0.02	0.02	0.00	3	1.82	1.81	0.30	3	0.01	0.01	0.00	3	0.02	0.02	0.00
	Non-derivatized - MS/MS MassChrom® Chromsystems	33	0.02	0.03	0.01	33	0.02	0.03	0.01	33	1.82	1.68	0.24	33	0.01	0.02	0.01	33	0.02	0.03	0.01
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	46	0.02	0.03	0.01	46	0.02	0.03	0.01	46	1.82	1.96	0.28	46	0.01	0.02	0.01	46	0.02	0.02	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	86	0.02	0.03	0.01	86	0.02	0.03	0.01	86	1.82	1.75	0.20	86	0.01	0.02	0.01	86	0.02	0.02	0.01
	Non-derivatized - MS/MS non-kit	30	0.02	0.04	0.02	31	0.02	0.04	0.02	32	1.82	1.97	0.49	31	0.01	0.03	0.03	30	0.02	0.03	0.02
	Non-derivatized Labsystems Neomass AAAC Plus	10	0.02	0.05	0.02	10	0.02	0.05	0.04	10	1.82	1.58	0.34	9	0.01	0.04	0.04	10	0.02	0.05	0.03
Other	5	0.02	0.03	0.01	5	0.02	0.03	0.01	5	1.82	1.81	0.07	5	0.01	0.02	0.01	5	0.02	0.02	0.01	
C10 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.01	0.01	0.01	3	0.01	0.01	0.00	3	1.11	0.62	0.07	3	0.01	0.01	0.01	3	0.01	0.01	0.00
	Derivatized - MS/MS MassChrom® Chromsystems	15	0.01	0.02	0.02	15	0.01	0.02	0.02	16	1.11	0.61	0.20	15	0.01	0.02	0.01	15	0.01	0.02	0.02
	Derivatized - MS/MS non-kit	64	0.01	0.03	0.02	66	0.01	0.03	0.03	67	1.11	0.81	0.21	66	0.01	0.02	0.03	67	0.01	0.03	0.03
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	0.01	0.02	0.00	3	0.01	0.02	0.01	3	1.11	0.75	0.09	3	0.01	0.01	0.00	3	0.01	0.02	0.01
	Non-derivatized - MS/MS MassChrom® Chromsystems	30	0.01	0.03	0.02	30	0.01	0.02	0.02	30	1.11	0.73	0.10	30	0.01	0.02	0.02	30	0.01	0.02	0.02
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	44	0.01	0.02	0.01	44	0.01	0.02	0.01	44	1.11	0.76	0.10	44	0.01	0.01	0.01	44	0.01	0.02	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	81	0.01	0.02	0.01	81	0.01	0.02	0.01	81	1.11	0.72	0.09	81	0.01	0.01	0.01	81	0.01	0.02	0.01
	Non-derivatized - MS/MS non-kit	27	0.01	0.04	0.03	28	0.01	0.04	0.03	28	1.11	0.86	0.20	28	0.01	0.03	0.03	28	0.01	0.04	0.04
	Non-derivatized Labsystems Neomass AAAC Plus	10	0.01	0.02	0.01	10	0.01	0.02	0.02	10	1.11	0.53	0.13	10	0.01	0.02	0.01	10	0.01	0.02	0.02
Other	4	0.01	0.02	0.01	4	0.01	0.02	0.01	4	1.11	0.69	0.02	4	0.01	0.01	0.01	4	0.01	0.03	0.03	

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C10:1 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.01	0.02	0.01	3	0.01	0.01	0.01	3	1.01	1.02	0.22	3	0.01	0.01	0.00	3	0.01	0.01	0.01
	Derivatized - MS/MS MassChrom® Chromsystems	15	0.01	0.02	0.01	15	0.01	0.02	0.01	15	1.01	0.80	0.33	15	0.01	0.02	0.01	14	0.01	0.02	0.01
	Derivatized - MS/MS non-kit	60	0.01	0.03	0.03	59	0.01	0.03	0.03	63	1.01	1.16	0.36	61	0.01	0.03	0.03	61	0.01	0.03	0.03
	Non-derivatized - MS/MS MassChrom® Chromsystems	20	0.01	0.02	0.02	20	0.01	0.02	0.03	20	1.01	0.85	0.22	20	0.01	0.02	0.02	19	0.01	0.01	0.01
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	42	0.01	0.03	0.02	42	0.01	0.03	0.02	42	1.01	0.87	0.11	42	0.01	0.03	0.02	42	0.01	0.03	0.02
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	73	0.01	0.01	0.01	73	0.01	0.01	0.01	74	1.01	0.76	0.12	74	0.01	0.01	0.01	73	0.01	0.01	0.01
	Non-derivatized - MS/MS non-kit	22	0.01	0.03	0.04	21	0.01	0.02	0.02	20	1.01	0.98	0.28	22	0.01	0.02	0.02	22	0.01	0.02	0.03
	Non-derivatized Labsystems Neomass AAAC Plus	8	0.01	0.02	0.01	8	0.01	0.02	0.02	8	1.01	0.63	0.11	8	0.01	0.02	0.02	8	0.01	0.02	0.01
Other	4	0.01	0.02	0.01	4	0.01	0.02	0.01	4	1.01	1.09	0.42	4	0.01	0.01	0.00	4	0.01	0.02	0.01	
C10:2 (µmol/L blood)	Derivatized - MS/MS MassChrom® Chromsystems	10	0.00	0.03	0.02	10	0.00	0.02	0.03	10	0.00	0.02	0.02	10	0.00	0.02	0.01	9	0.00	0.02	0.02
	Derivatized - MS/MS non-kit	41	0.00	0.02	0.01	41	0.00	0.02	0.02	42	0.00	0.02	0.04	41	0.00	0.01	0.02	42	0.00	0.02	0.02
	Non-derivatized - MS/MS MassChrom® Chromsystems	8	0.00	0.02	0.02	8	0.00	0.04	0.04	8	0.00	0.02	0.02	8	0.00	0.02	0.02	8	0.00	0.03	0.02
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	35	0.00	0.00	0.01	35	0.00	0.01	0.01	35	0.00	0.00	0.01	35	0.00	0.00	0.01	35	0.00	0.00	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	60	0.00	0.00	0.01	60	0.00	0.00	0.01	59	0.00	0.00	0.01	59	0.00	0.00	0.01	60	0.00	0.00	0.01
	Non-derivatized - MS/MS non-kit	12	0.00	0.01	0.01	12	0.00	0.01	0.01	11	0.00	0.01	0.02	12	0.00	0.01	0.01	12	0.00	0.01	0.02
	Non-derivatized Labsystems Neomass AAAC Plus	8	0.00	0.04	0.03	8	0.00	0.03	0.04	8	0.00	0.04	0.06	7	0.00	0.01	0.01	8	0.00	0.02	0.03
	Other	4	0.00	0.01	0.01	4	0.00	0.01	0.01	4	0.00	0.01	0.02	4	0.00	0.01	0.01	4	0.00	0.02	0.01
C14 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.05	0.06	0.03	3	0.04	0.05	0.02	3	0.03	0.03	0.01	3	0.02	0.01	0.01	3	0.03	0.03	0.02
	Derivatized - MS/MS MassChrom® Chromsystems	15	0.05	0.07	0.02	16	0.04	0.06	0.03	15	0.03	0.03	0.02	15	0.02	0.03	0.02	15	0.03	0.04	0.02
	Derivatized - MS/MS non-kit	65	0.05	0.07	0.03	64	0.04	0.07	0.03	63	0.03	0.05	0.03	66	0.02	0.03	0.02	66	0.03	0.05	0.03
	Non-derivatized - MS/MS MassChrom® Chromsystems	25	0.05	0.05	0.01	25	0.04	0.05	0.01	25	0.03	0.03	0.01	25	0.02	0.02	0.01	25	0.03	0.03	0.01
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	42	0.05	0.05	0.01	42	0.04	0.05	0.01	42	0.03	0.03	0.01	42	0.02	0.02	0.01	42	0.03	0.03	0.01

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C14 (µmol/L blood)	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	78	0.05	0.05	0.01	78	0.04	0.05	0.01	78	0.03	0.03	0.01	78	0.02	0.02	0.01	78	0.03	0.03	0.01
	Non-derivatized - MS/MS non-kit	29	0.05	0.06	0.02	28	0.04	0.06	0.02	29	0.03	0.03	0.02	28	0.02	0.02	0.01	29	0.03	0.04	0.03
	Non-derivatized Labsystems Neomass AAAC Plus	10	0.05	0.05	0.01	10	0.04	0.04	0.02	9	0.03	0.03	0.01	10	0.02	0.02	0.01	9	0.03	0.03	0.01
	Other	4	0.05	0.06	0.01	4	0.04	0.06	0.01	4	0.03	0.03	0.01	4	0.02	0.02	0.01	4	0.03	0.04	0.03
C14:1 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.02	0.04	0.03	3	0.02	0.03	0.02	3	0.02	0.02	0.01	3	0.02	0.01	0.01	3	0.02	0.03	0.01
	Derivatized - MS/MS MassChrom® Chromsystems	16	0.02	0.05	0.04	15	0.02	0.04	0.03	15	0.02	0.03	0.02	16	0.02	0.02	0.02	16	0.02	0.04	0.03
	Derivatized - MS/MS non-kit	66	0.02	0.04	0.03	65	0.02	0.04	0.03	66	0.02	0.04	0.03	65	0.02	0.02	0.02	64	0.02	0.04	0.03
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	0.02	0.03	0.01	3	0.02	0.03	0.01	3	0.02	0.02	0.01	3	0.02	0.01	0.01	3	0.02	0.02	0.01
	Non-derivatized - MS/MS MassChrom® Chromsystems	21	0.02	0.03	0.01	21	0.02	0.03	0.01	21	0.02	0.02	0.01	21	0.02	0.02	0.01	21	0.02	0.02	0.02
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	44	0.02	0.03	0.01	44	0.02	0.03	0.01	44	0.02	0.03	0.02	44	0.02	0.02	0.01	44	0.02	0.03	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	85	0.02	0.02	0.01	85	0.02	0.02	0.01	85	0.02	0.02	0.01	85	0.02	0.01	0.01	85	0.02	0.02	0.01
	Non-derivatized - MS/MS non-kit	26	0.02	0.03	0.02	26	0.02	0.03	0.02	26	0.02	0.02	0.01	26	0.02	0.01	0.01	26	0.02	0.02	0.01
	Non-derivatized Labsystems Neomass AAAC Plus	8	0.02	0.03	0.03	9	0.02	0.04	0.03	9	0.02	0.03	0.03	9	0.02	0.03	0.03	9	0.02	0.03	0.03
Other	5	0.02	0.02	0.01	5	0.02	0.03	0.01	5	0.02	0.02	0.00	5	0.02	0.01	0.00	5	0.02	0.02	0.01	
C16 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.70	0.78	0.12	3	0.69	0.76	0.13	3	0.64	0.70	0.13	3	0.37	0.33	0.05	3	0.66	0.75	0.14
	Derivatized - MS/MS MassChrom® Chromsystems	16	0.70	0.71	0.18	16	0.69	0.71	0.11	16	0.64	0.68	0.11	16	0.37	0.34	0.16	16	0.66	0.69	0.15
	Derivatized - MS/MS non-kit	68	0.70	0.81	0.13	68	0.69	0.83	0.13	68	0.64	0.75	0.12	67	0.37	0.36	0.08	68	0.66	0.77	0.12
	Non-derivatized - MS/MS MassChrom® Chromsystems	25	0.70	0.71	0.12	25	0.69	0.69	0.11	25	0.64	0.65	0.08	25	0.37	0.31	0.06	25	0.66	0.65	0.10
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	43	0.70	0.80	0.09	43	0.69	0.82	0.10	43	0.64	0.75	0.10	43	0.37	0.34	0.05	43	0.66	0.75	0.09
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	81	0.70	0.89	0.10	81	0.69	0.88	0.09	81	0.64	0.83	0.09	81	0.37	0.38	0.05	81	0.66	0.82	0.09
	Non-derivatized - MS/MS non-kit	29	0.70	0.74	0.15	29	0.69	0.76	0.13	29	0.64	0.70	0.12	28	0.37	0.32	0.05	29	0.66	0.68	0.13
	Non-derivatized Labsystems Neomass AAAC Plus	10	0.70	0.72	0.09	10	0.69	0.70	0.13	10	0.64	0.65	0.13	10	0.37	0.33	0.11	10	0.66	0.65	0.13

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C16 (µmol/L blood)	Other	4	0.70	0.89	0.10	4	0.69	0.86	0.11	4	0.64	0.76	0.03	4	0.37	0.34	0.03	3	0.66	0.76	0.04
C16OH (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.01	0.01	0.00	3	0.01	0.01	0.01	3	0.01	0.01	0.00	3	0.01	0.00	0.00	3	0.01	0.01	0.00
	Derivatized - MS/MS MassChrom® Chromsystems	15	0.01	0.02	0.02	16	0.01	0.02	0.01	16	0.01	0.02	0.01	16	0.01	0.02	0.02	15	0.01	0.02	0.02
	Derivatized - MS/MS non-kit	65	0.01	0.02	0.02	66	0.01	0.02	0.01	66	0.01	0.02	0.01	66	0.01	0.02	0.02	65	0.01	0.02	0.02
	Non-derivatized - MS/MS MassChrom® Chromsystems	29	0.01	0.01	0.01	29	0.01	0.01	0.01	29	0.01	0.01	0.01	29	0.01	0.01	0.01	29	0.01	0.01	0.01
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	44	0.01	0.01	0.00	44	0.01	0.01	0.00	44	0.01	0.01	0.00	44	0.01	0.01	0.01	44	0.01	0.01	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	84	0.01	0.01	0.01	84	0.01	0.01	0.00	84	0.01	0.01	0.01	84	0.01	0.01	0.01	84	0.01	0.01	0.01
	Non-derivatized - MS/MS non-kit	26	0.01	0.01	0.01	26	0.01	0.01	0.01	26	0.01	0.01	0.01	26	0.01	0.01	0.01	26	0.01	0.01	0.02
	Non-derivatized Labsystems Neomass AAAC Plus	9	0.01	0.01	0.02	9	0.01	0.01	0.01	9	0.01	0.01	0.02	9	0.01	0.01	0.02	9	0.01	0.01	0.02
Other	5	0.01	0.02	0.01	5	0.01	0.02	0.01	5	0.01	0.02	0.01	5	0.01	0.02	0.01	5	0.01	0.02	0.01	
C18 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.54	0.56	0.07	3	0.54	0.58	0.04	3	0.54	0.58	0.10	3	0.32	0.28	0.04	3	0.56	0.58	0.10
	Derivatized - MS/MS MassChrom® Chromsystems	16	0.54	0.57	0.12	16	0.54	0.60	0.14	16	0.54	0.64	0.16	15	0.32	0.27	0.05	16	0.56	0.59	0.14
	Derivatized - MS/MS non-kit	64	0.54	0.60	0.14	64	0.54	0.60	0.15	63	0.54	0.61	0.15	64	0.32	0.29	0.08	64	0.56	0.62	0.15
	Non-derivatized - MS/MS MassChrom® Chromsystems	25	0.54	0.61	0.12	25	0.54	0.60	0.10	25	0.54	0.61	0.09	24	0.32	0.30	0.03	25	0.56	0.61	0.10
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	42	0.54	0.61	0.06	42	0.54	0.62	0.08	42	0.54	0.63	0.07	42	0.32	0.30	0.03	42	0.56	0.63	0.06
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	75	0.54	0.64	0.06	75	0.54	0.64	0.05	75	0.54	0.65	0.05	75	0.32	0.31	0.03	75	0.56	0.64	0.09
	Non-derivatized - MS/MS non-kit	24	0.54	0.56	0.12	25	0.54	0.63	0.15	25	0.54	0.59	0.18	25	0.32	0.30	0.06	25	0.56	0.59	0.16
	Non-derivatized Labsystems Neomass AAAC Plus	10	0.54	0.52	0.12	10	0.54	0.49	0.11	10	0.54	0.53	0.12	10	0.32	0.27	0.09	10	0.56	0.51	0.11
Other	4	0.54	0.65	0.04	4	0.54	0.62	0.04	4	0.54	0.61	0.07	4	0.32	0.28	0.01	4	0.56	0.67	0.09	

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Acylcarnitines (ACPT)

		Specimen Number																			
		20233006001				20233006002				20233006003				20233006004				20233006005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
C18:1 (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.73	0.83	0.20	3	0.77	0.82	0.18	3	0.84	1.03	0.21	3	0.46	0.42	0.10	3	0.90	1.00	0.24
	Derivatized - MS/MS MassChrom® Chromsystems	15	0.73	0.69	0.19	15	0.77	0.66	0.28	15	0.84	0.88	0.27	15	0.46	0.36	0.12	15	0.90	0.81	0.26
	Derivatized - MS/MS non-kit	62	0.73	0.80	0.21	62	0.77	0.80	0.18	62	0.84	0.89	0.19	62	0.46	0.39	0.11	62	0.90	0.92	0.18
	Non-derivatized - MS/MS MassChrom® Chromsystems	21	0.73	0.72	0.26	20	0.77	0.66	0.18	20	0.84	0.78	0.20	21	0.46	0.35	0.12	21	0.90	0.83	0.29
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	42	0.73	0.79	0.09	42	0.77	0.81	0.11	42	0.84	0.94	0.13	42	0.46	0.39	0.05	42	0.90	0.94	0.11
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	73	0.73	0.84	0.10	73	0.77	0.84	0.10	73	0.84	0.98	0.12	73	0.46	0.41	0.07	73	0.90	0.98	0.12
	Non-derivatized - MS/MS non-kit	22	0.73	0.82	0.16	22	0.77	0.87	0.16	22	0.84	0.96	0.17	22	0.46	0.41	0.09	23	0.90	1.05	0.39
	Non-derivatized Labsystems Neomass AAAC Plus	9	0.73	0.65	0.12	9	0.77	0.64	0.13	9	0.84	0.77	0.21	9	0.46	0.33	0.10	9	0.90	0.82	0.34
Other	4	0.73	0.86	0.14	4	0.77	0.82	0.12	4	0.84	0.93	0.18	4	0.46	0.38	0.04	3	0.90	0.97	0.20	
C18OH (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	0.01	0.00	0.01	3	0.01	0.00	0.01	3	0.01	0.00	0.01	3	0.01	0.00	0.00	3	0.01	0.00	0.01
	Derivatized - MS/MS MassChrom® Chromsystems	13	0.01	0.02	0.01	13	0.01	0.02	0.01	14	0.01	0.02	0.01	14	0.01	0.01	0.01	14	0.01	0.02	0.02
	Derivatized - MS/MS non-kit	48	0.01	0.02	0.02	47	0.01	0.02	0.01	46	0.01	0.02	0.01	46	0.01	0.01	0.01	46	0.01	0.02	0.01
	Non-derivatized - MS/MS MassChrom® Chromsystems	21	0.01	0.00	0.01	21	0.01	0.00	0.01	21	0.01	0.00	0.01	21	0.01	0.00	0.00	21	0.01	0.01	0.01
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	41	0.01	0.00	0.01	41	0.01	0.00	0.01	40	0.01	0.00	0.01	41	0.01	0.00	0.01	41	0.01	0.00	0.01
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	73	0.01	0.00	0.00	73	0.01	0.00	0.01	73	0.01	0.00	0.00	73	0.01	0.00	0.00	73	0.01	0.00	0.00
	Non-derivatized - MS/MS non-kit	19	0.01	0.01	0.02	19	0.01	0.01	0.01	19	0.01	0.01	0.01	19	0.01	0.01	0.01	19	0.01	0.01	0.01
	Non-derivatized Labsystems Neomass AAAC Plus	9	0.01	0.01	0.02	9	0.01	0.00	0.00	9	0.01	0.01	0.01	8	0.01	0.00	0.01	9	0.01	0.01	0.02
Other	4	0.01	0.01	0.01	4	0.01	0.01	0.01	4	0.01	0.01	0.01	4	0.01	0.00	0.01	4	0.01	0.01	0.01	

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Amino Acids (AAPT)

		Specimen Number																			
		20233005001				20233005002				20233005003				20233005004				20233005005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
Arg (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	11.3	6.9	1.7	3	210.7	105.2	19.5	3	10.5	5.9	1.8	3	7.7	4.9	1.3	3	7.4	5.1	0.4
	Derivatized - MS/MS MassChrom® Chromsystems	13	11.3	14.4	5.0	13	210.7	173.3	42.4	13	10.5	13.6	6.0	13	7.7	9.4	3.9	12	7.4	8.6	2.2
	Derivatized - MS/MS non-kit	51	11.3	10.5	4.2	53	210.7	127.6	52.1	53	10.5	11.2	4.9	53	7.7	7.6	3.5	53	7.4	7.2	3.1
	Non-derivatized - MS/MS MassChrom® Chromsystems	24	11.3	12.4	2.6	24	210.7	181.4	27.3	22	10.5	13.7	4.3	24	7.7	9.4	3.8	24	7.4	8.9	2.7
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	38	11.3	9.0	1.6	38	210.7	155.4	28.4	38	10.5	9.6	1.7	38	7.7	5.9	1.1	37	7.4	5.7	1.0
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	76	11.3	9.7	1.8	76	210.7	162.3	18.4	75	10.5	10.8	2.3	75	7.7	6.8	1.5	75	7.4	6.5	1.5
	Non-derivatized - MS/MS non-kit	21	11.3	10.4	5.2	21	210.7	143.5	35.5	21	10.5	11.5	4.6	21	7.7	7.6	2.9	20	7.4	7.1	2.8
	Non-derivatized Labsystems Neomass AAAC Plus	10	11.3	11.5	5.6	10	210.7	158.5	35.8	10	10.5	10.7	5.8	10	7.7	7.4	3.9	10	7.4	7.0	4.0
	Other	4	11.3	9.8	0.5	4	210.7	156.9	12.4	4	10.5	11.9	1.7	4	7.7	6.9	1.0	4	7.4	6.1	0.7
CRE	Derivatized - MS/MS non-kit	7	358.6	359.7	68.5	7	362.8	341.1	48.9	7	354.2	378.4	107.6	7	414.9	422.1	108.0	7	415.9	423.4	89.2
Cit (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	163.0	170.4	37.5	3	13.0	14.8	0.8	3	12.4	14.6	3.0	3	5.1	6.8	2.4	3	5.1	6.0	1.1
	Derivatized - MS/MS MassChrom® Chromsystems	13	163.0	144.5	24.6	13	13.0	17.3	6.3	12	12.4	13.1	2.6	12	5.1	6.0	1.4	12	5.1	6.3	1.5
	Derivatized - MS/MS non-kit	56	163.0	138.5	25.5	55	13.0	14.4	4.0	55	12.4	12.2	3.1	54	5.1	5.6	1.4	54	5.1	6.0	1.8
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	163.0	133.9	4.3	3	13.0	14.1	0.7	3	12.4	11.8	1.2	3	5.1	5.0	0.5	3	5.1	5.2	0.8
	Non-derivatized - MS/MS MassChrom® Chromsystems	24	163.0	160.9	17.6	24	13.0	17.7	4.2	24	12.4	15.0	2.3	24	5.1	6.3	1.2	24	5.1	6.5	1.6
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	47	163.0	157.5	15.2	47	13.0	16.2	2.3	47	12.4	13.7	1.6	47	5.1	5.7	0.8	47	5.1	5.7	0.8
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	82	163.0	153.1	15.8	82	13.0	16.5	2.7	81	12.4	13.4	1.7	81	5.1	5.7	1.2	81	5.1	5.5	1.0
	Non-derivatized - MS/MS non-kit	28	163.0	146.2	26.7	28	13.0	15.3	4.9	28	12.4	12.5	3.3	28	5.1	6.2	2.7	28	5.1	6.0	2.2
	Non-derivatized Labsystems Neomass AAAC Plus	10	163.0	126.3	33.2	8	13.0	23.6	7.1	9	12.4	12.0	3.4	9	5.1	4.8	1.2	9	5.1	4.8	1.1
	Other	4	163.0	152.8	11.9	4	13.0	14.4	1.5	4	12.4	14.2	0.9	4	5.1	6.2	1.4	4	5.1	5.3	0.3
GUAC (µmol/L blood)	Derivatized - MS/MS non-kit	11	1.4	1.6	0.8	11	1.4	1.5	0.6	11	1.4	1.6	0.9	11	0.9	1.1	0.6	11	1.0	2.0	3.3

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Amino Acids (AAPT)

		Specimen Number																			
		20233005001				20233005002				20233005003				20233005004				20233005005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
Leu (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	30.2	31.4	3.2	3	30.9	31.0	1.9	3	30.2	30.7	1.0	3	20.4	24.6	5.2	3	20.1	24.0	3.8
	Derivatized - MS/MS MassChrom® Chromsystems	12	30.2	42.3	23.4	13	30.9	45.7	26.1	13	30.2	46.0	28.5	13	20.4	36.6	24.3	13	20.1	38.2	25.3
	Derivatized - MS/MS non-kit	53	30.2	39.0	13.6	53	30.9	40.1	16.8	51	30.2	37.5	11.2	55	20.4	36.6	33.1	52	20.1	29.9	16.2
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	30.2	39.3	2.8	3	30.9	40.2	1.1	3	30.2	39.7	3.4	3	20.4	23.2	0.4	3	20.1	23.7	0.9
	Non-derivatized - MS/MS MassChrom® Chromsystems	31	30.2	41.4	9.9	31	30.9	41.1	7.4	32	30.2	43.7	14.4	32	20.4	28.1	14.6	31	20.1	26.4	7.2
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	48	30.2	42.1	6.3	48	30.9	42.4	4.7	48	30.2	42.9	5.4	48	20.4	25.8	3.2	48	20.1	25.5	3.2
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	87	30.2	40.6	5.2	87	30.9	40.9	5.6	86	30.2	41.0	5.7	86	20.4	25.7	4.2	86	20.1	25.5	4.1
	Non-derivatized - MS/MS non-kit	34	30.2	38.8	10.9	34	30.9	41.3	13.3	34	30.2	41.0	12.1	34	20.4	26.6	14.4	34	20.1	28.1	14.6
	Non-derivatized Labsystems Neomass AAAC Plus	10	30.2	36.1	6.2	10	30.9	36.9	5.2	10	30.2	35.5	4.9	10	20.4	20.7	3.8	10	20.1	20.5	3.9
Other	11	30.2	34.7	13.2	12	30.9	39.6	23.8	11	30.2	38.3	14.7	12	20.4	30.5	28.9	12	20.1	29.5	23.9	
Met (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	4.2	3.7	1.4	3	4.3	3.9	1.2	3	4.2	3.9	1.1	3	202.6	147.1	25.8	3	2.8	3.5	1.9
	Derivatized - MS/MS MassChrom® Chromsystems	13	4.2	7.0	3.7	13	4.3	6.5	3.0	13	4.2	6.9	5.0	13	202.6	134.0	39.4	13	2.8	5.5	4.7
	Derivatized - MS/MS non-kit	53	4.2	6.2	3.5	54	4.3	6.4	4.0	52	4.2	6.0	2.8	55	202.6	149.4	33.9	56	2.8	6.3	7.3
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	4.2	4.6	0.3	3	4.3	4.7	0.1	3	4.2	4.8	0.3	3	202.6	141.9	4.0	3	2.8	3.5	0.3
	Non-derivatized - MS/MS MassChrom® Chromsystems	32	4.2	5.2	2.3	32	4.3	5.2	2.5	32	4.2	5.5	2.7	32	202.6	137.8	22.8	32	2.8	4.1	2.5
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	48	4.2	5.4	1.8	48	4.3	5.2	1.5	48	4.2	5.7	1.6	48	202.6	159.2	14.0	48	2.8	4.3	1.9
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	84	4.2	3.9	0.6	84	4.3	4.1	0.7	83	4.2	4.4	1.1	83	202.6	144.8	15.9	83	2.8	3.0	0.9
	Non-derivatized - MS/MS non-kit	34	4.2	5.2	2.7	34	4.3	5.2	2.6	34	4.2	5.7	3.2	34	202.6	158.8	31.6	34	2.8	3.9	3.0
	Non-derivatized Labsystems Neomass AAAC Plus	10	4.2	3.6	2.1	10	4.3	4.3	2.7	10	4.2	3.9	2.1	10	202.6	129.2	68.7	10	2.8	2.9	2.3
Other	6	4.2	7.6	5.1	6	4.3	8.8	5.5	5	4.2	7.7	4.1	6	202.6	173.0	26.2	6	2.8	7.6	6.2	

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Amino Acids (AAPT)

		Specimen Number																			
		20233005001				20233005002				20233005003				20233005004				20233005005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
Phe (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	4	11.7	11.3	1.5	4	11.9	11.4	2.1	4	251.5	201.1	35.5	4	7.6	8.4	1.4	4	7.6	8.0	1.3
	Derivatized - MS/MS MassChrom® Chromsystems	14	11.7	18.0	10.7	14	11.9	16.2	9.9	14	251.5	218.2	43.9	14	7.6	14.5	11.8	14	7.6	13.5	11.2
	Derivatized - MS/MS non-kit	60	11.7	13.0	3.4	60	11.9	13.2	5.8	59	251.5	216.1	29.3	59	7.6	9.2	2.7	59	7.6	9.2	2.6
	GSP® Phe Neonatal PerkinElmer	12	11.7	14.3	10.2	12	11.9	16.6	11.4	11	251.5	219.8	25.5	11	7.6	13.1	5.2	11	7.6	13.5	7.0
	NeolISA® Phe Interscientifica	4	11.7	27.4	14.4	3	11.9	17.7	17.6	4	251.5	176.4	19.3	4	7.6	25.0	20.1	4	7.6	23.8	16.0
	Neonatal Phe LabSystems	12	11.7	25.5	20.9	13	11.9	29.6	23.2	12	251.5	217.9	48.5	13	7.6	31.5	28.9	13	7.6	24.7	23.3
	Neonatal® Phe Kit PerkinElmer	10	11.7	70.1	147.5	11	11.9	65.2	138.1	12	251.5	298.9	279.2	11	7.6	58.5	117.6	10	7.6	57.4	121.8
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	11.7	11.9	0.7	3	11.9	12.4	0.3	3	251.5	221.4	15.2	3	7.6	9.7	1.7	3	7.6	8.0	0.1
	Non-derivatized - MS/MS MassChrom® Chromsystems	32	11.7	13.8	2.4	32	11.9	14.2	2.5	32	251.5	245.2	30.6	32	7.6	10.2	2.3	32	7.6	10.3	3.3
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	47	11.7	13.4	2.8	47	11.9	12.9	2.0	47	251.5	233.3	26.3	47	7.6	9.6	2.3	47	7.6	8.8	1.4
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	89	11.7	11.7	1.7	89	11.9	11.8	1.7	88	251.5	214.9	21.5	88	7.6	8.4	2.0	88	7.6	8.1	2.2
	Non-derivatized - MS/MS non-kit	39	11.7	14.9	9.8	38	11.9	13.7	4.5	39	251.5	226.5	32.1	39	7.6	11.5	10.9	39	7.6	11.4	10.9
	Non-derivatized Labsystems Neomass AAAC Plus	6	11.7	10.7	1.4	6	11.9	10.9	1.4	6	251.5	201.3	29.0	6	7.6	7.3	2.0	6	7.6	6.7	1.3
Other	15	11.7	20.7	15.7	17	11.9	29.8	24.2	16	251.5	256.2	33.9	13	7.6	18.3	16.4	16	7.6	27.0	29.0	
SUAC (µmol/L blood)	Derivatized - MS/MS MassChrom® Chromsystems	12	0.5	0.6	0.5	12	0.5	0.6	0.6	11	0.5	0.5	0.2	12	0.3	0.9	1.3	12	0.3	0.7	0.7
	Derivatized - MS/MS non-kit	25	0.5	0.7	0.6	25	0.5	0.7	0.6	25	0.5	0.7	0.5	25	0.3	0.6	0.5	25	0.3	0.6	0.5
	Non-derivatized - MS/MS MassChrom® Chromsystems	20	0.5	0.7	0.3	20	0.5	0.8	0.3	20	0.5	0.8	0.4	20	0.3	0.8	0.3	20	0.3	0.8	0.3
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	32	0.5	0.6	0.3	32	0.5	0.6	0.3	32	0.5	0.6	0.3	32	0.3	0.6	0.3	32	0.3	0.6	0.3
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	62	0.5	0.2	0.1	62	0.5	0.2	0.1	61	0.5	0.2	0.1	60	0.3	0.2	0.1	61	0.3	0.2	0.1
	Non-derivatized - MS/MS non-kit	15	0.5	0.8	0.6	15	0.5	0.8	0.6	15	0.5	0.7	0.5	15	0.3	0.8	0.6	15	0.3	0.7	0.5
	Non-derivatized Labsystems Neomass AAAC Plus	5	0.5	0.5	0.3	5	0.5	0.6	0.3	5	0.5	0.6	0.3	5	0.3	0.8	0.5	5	0.3	0.9	0.5
Other	3	0.5	0.2	0.2	3	0.5	0.3	0.2	3	0.5	0.3	0.2	3	0.3	0.3	0.2	3	0.3	0.3	0.2	

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Amino Acids (AAPT)

		Specimen Number																			
		20233005001				20233005002				20233005003				20233005004				20233005005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
Tyr (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	18.6	16.3	2.1	3	18.6	15.7	1.5	3	18.0	16.5	2.0	3	11.3	11.0	1.2	3	11.3	11.1	1.4
	Derivatized - MS/MS MassChrom® Chromsystems	13	18.6	21.8	7.4	13	18.6	20.2	5.7	13	18.0	21.2	6.8	13	11.3	13.7	4.8	13	11.3	14.3	6.2
	Derivatized - MS/MS non-kit	59	18.6	19.6	4.7	59	18.6	20.0	6.4	59	18.0	20.6	6.0	58	11.3	12.9	3.1	59	11.3	13.3	6.4
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	18.6	18.3	1.9	3	18.6	18.4	1.0	3	18.0	18.4	1.6	3	11.3	12.7	1.9	3	11.3	11.6	0.5
	Non-derivatized - MS/MS MassChrom® Chromsystems	30	18.6	23.6	5.3	30	18.6	23.7	5.3	30	18.0	25.6	6.0	30	11.3	16.5	4.5	30	11.3	16.8	4.9
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	47	18.6	21.9	4.0	47	18.6	21.4	2.9	47	18.0	22.3	3.0	47	11.3	14.3	2.0	47	11.3	13.9	2.1
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	86	18.6	20.2	2.7	86	18.6	20.4	2.9	85	18.0	20.9	2.6	85	11.3	13.6	2.1	85	11.3	13.1	2.5
	Non-derivatized - MS/MS non-kit	35	18.6	21.5	8.1	35	18.6	21.4	7.5	35	18.0	22.8	8.0	35	11.3	15.7	8.8	35	11.3	15.6	8.5
	Non-derivatized Labsystems Neomass AAAC Plus	9	18.6	15.9	2.8	9	18.6	16.7	3.4	9	18.0	16.2	2.7	9	11.3	9.8	2.4	10	11.3	12.9	9.6
Other	7	18.6	22.6	4.2	5	18.6	20.8	2.7	6	18.0	22.1	3.0	7	11.3	23.1	17.6	6	11.3	14.7	5.0	
Val (µmol/L blood)	Derivatized - MS/MS ClinSpot® Complete Kit RECIPE	3	49.6	33.9	1.8	3	52.2	31.9	6.5	3	53.2	33.7	2.4	3	41.3	24.4	2.6	3	39.3	22.9	3.3
	Derivatized - MS/MS MassChrom® Chromsystems	13	49.6	48.8	27.6	13	52.2	47.7	24.1	13	53.2	45.2	22.2	13	41.3	36.2	23.6	13	39.3	35.4	21.6
	Derivatized - MS/MS non-kit	52	49.6	51.8	22.1	51	52.2	51.7	21.8	53	53.2	53.6	27.0	52	41.3	41.2	23.7	50	39.3	38.6	18.4
	Non-derivatized - MS/MS MS2 Screening Neo (MS-Neo)Siemens	3	49.6	38.0	2.2	3	52.2	39.3	3.8	3	53.2	38.9	1.0	3	41.3	25.1	2.4	3	39.3	25.2	2.2
	Non-derivatized - MS/MS MassChrom® Chromsystems	24	49.6	35.1	6.7	24	52.2	35.7	6.5	24	53.2	36.1	7.4	24	41.3	24.3	5.9	24	39.3	24.3	5.8
	Non-derivatized - MS/MS NeoBase™ PerkinElmer	45	49.6	43.3	5.5	45	52.2	42.9	5.6	45	53.2	43.4	5.9	45	41.3	28.7	3.7	45	39.3	28.4	4.0
	Non-derivatized - MS/MS NeoBase™2 PerkinElmer	76	49.6	39.3	6.1	76	52.2	39.6	6.4	75	53.2	39.6	6.0	75	41.3	26.5	5.6	75	39.3	26.2	5.7
	Non-derivatized - MS/MS non-kit	27	49.6	38.5	10.7	27	52.2	39.9	10.6	27	53.2	39.7	12.2	27	41.3	27.8	9.0	27	39.3	28.9	12.3
	Non-derivatized Labsystems Neomass AAAC Plus	10	49.6	35.2	7.0	10	52.2	37.9	7.0	10	53.2	35.1	6.1	10	41.3	23.6	6.2	10	39.3	24.3	5.4
Other	8	49.6	39.5	9.7	8	52.2	43.9	6.8	8	53.2	45.7	15.3	8	41.3	29.0	6.1	8	39.3	29.5	5.5	

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Hormones and Total Galactose (HORMPT)

		Specimen Number																			
		20233001001				20233001002				20233001003				20233001004				20233001005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
T4 (µg/dL serum)	AutoDELFLIA® Neonatal T4 PerkinElmer	16	10.0	14.5	1.7	16	10.0	13.2	2.0	17	1.5	1.6	0.3	16	10.0	15.0	1.7	16	10.0	13.6	2.0
	DELFLIA® Neonatal T4 PerkinElmer	7	10.0	15.8	5.3	7	10.0	13.4	3.9	7	1.5	1.6	0.8	7	10.0	14.7	3.8	7	10.0	14.1	4.1
	GSP® T4 Neonatal PerkinElmer	26	10.0	15.2	2.0	26	10.0	14.6	2.3	24	1.5	1.6	0.4	26	10.0	16.8	2.7	26	10.0	14.8	1.7
	NeoMAP® T4 Interscientifica	4	10.0	14.4	1.6	4	10.0	13.3	1.0	4	1.5	2.2	1.2	4	10.0	13.4	1.6	4	10.0	12.6	0.3
	Other	12	10.0	16.5	3.3	12	10.0	13.7	2.5	12	1.5	2.1	1.0	12	10.0	17.2	3.6	12	10.0	14.8	3.5
TSH (µIU/mL serum)	AutoDELFLIA® Neonatal hTSH PerkinElmer	70	0.0	0.8	0.7	70	0.0	0.6	1.1	72	90.0	63.7	12.7	70	0.0	1.5	0.7	70	0.0	0.8	0.8
	DELFLIA® Neonatal TSH PerkinElmer	55	0.0	1.7	1.5	55	0.0	1.3	1.4	57	90.0	60.5	14.5	56	0.0	2.6	1.5	56	0.0	1.8	1.5
	GSP® hTSH Neonatal PerkinElmer	112	0.0	1.1	0.7	111	0.0	0.7	0.8	120	90.0	55.6	10.2	111	0.0	1.8	0.6	111	0.0	1.1	0.7
	NeoMAP® TSH Interscientifica	4	0.0	1.1	0.4	4	0.0	1.0	0.4	4	90.0	50.2	17.7	4	0.0	1.4	0.4	4	0.0	1.3	0.6
	Neonatal TSH LabSystems	19	0.0	3.9	1.8	17	0.0	3.8	1.8	21	90.0	65.1	22.0	21	0.0	5.0	2.3	19	0.0	4.2	2.1
	Other	20	0.0	2.0	1.4	19	0.0	1.6	1.9	20	90.0	54.6	21.3	20	0.0	3.2	2.1	19	0.0	2.1	2.0
	Trimarix Neonatal TSH FEIA	7	0.0	1.1	0.9	7	0.0	1.4	1.3	7	90.0	56.3	3.8	7	0.0	2.9	1.4	7	0.0	1.8	1.5
	ZenTech ELISA Neonatal TSH	14	0.0	2.7	1.4	14	0.0	2.1	0.8	14	90.0	56.1	21.0	14	0.0	3.0	1.6	14	0.0	2.2	1.1
17OHP (ng/mL serum)	AutoDELFLIA® Neonatal 17OHP PerkinElmer	63	85.0	96.4	20.0	63	0.0	2.0	1.7	63	0.0	0.5	0.8	63	0.0	2.0	1.8	63	0.0	2.1	1.7
	DELFLIA® Neonatal 17OHP PerkinElmer	44	85.0	78.4	27.2	45	0.0	1.3	0.9	45	0.0	0.5	0.4	45	0.0	1.2	0.9	45	0.0	1.5	1.1
	GSP® 17OHP Neonatal PerkinElmer	104	85.0	83.7	14.7	96	0.0	1.3	1.2	96	0.0	0.4	0.6	96	0.0	1.1	0.5	97	0.0	1.3	0.5
	LC-MS/MS non-kit	8	85.0	64.6	26.4	7	0.0	1.4	0.9	7	0.0	1.2	0.9	7	0.0	1.4	1.1	7	0.0	1.3	0.9
	NeoMAP® 17OHP Interscientifica	3	85.0	48.1	8.9	3	0.0	1.1	0.7	3	0.0	1.0	1.4	3	0.0	1.0	0.9	3	0.0	1.1	0.5
	Neonatal 17OHP LabSystems	15	85.0	75.8	36.7	15	0.0	1.8	1.2	15	0.0	1.0	1.3	15	0.0	1.8	1.2	15	0.0	3.0	1.9
	Other	20	85.0	88.9	28.5	18	0.0	2.4	2.4	18	0.0	1.4	1.8	18	0.0	2.4	2.5	20	0.0	5.3	6.0
	ZenTech ELISA Neonatal 17OHP	13	85.0	76.0	47.0	11	0.0	3.0	1.6	12	0.0	2.1	1.1	12	0.0	4.7	3.1	11	0.0	6.1	4.8

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Hormones and Total Galactose (HORMPT)

		Specimen Number																			
		20233001001				20233001002				20233001003				20233001004				20233001005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
TGal (mg/dL blood)	50hr Reagent Kit Spotcheck® TGal Astoria-Pacific	3	0.0	1.4	0.6	3	0.0	1.3	0.6	3	0.0	1.2	0.5	3	25.0	18.8	2.9	3	0.0	1.4	0.6
	Colorimetric -non-kit method	3	0.0	0.9	0.1	3	0.0	1.0	0.2	3	0.0	0.8	0.6	3	25.0	35.2	5.9	3	0.0	1.3	0.9
	Fluorescence TGal Neonatal PerkinElmer	41	0.0	0.8	1.1	41	0.0	1.0	0.9	41	0.0	1.2	0.8	41	25.0	19.3	3.0	41	0.0	1.0	1.2
	Fluorometric manual TGal - non-kit	5	0.0	1.1	0.8	6	0.0	1.6	1.2	6	0.0	1.2	0.8	8	25.0	24.0	9.2	6	0.0	1.4	0.6
	GSP® TGal Neonatal PerkinElmer	56	0.0	0.8	0.9	56	0.0	0.8	0.2	56	0.0	0.8	0.2	59	25.0	23.1	2.6	56	0.0	0.7	0.2
	NeoLISA® TGal Interscientifica	4	0.0	1.7	1.0	4	0.0	1.7	1.0	4	0.0	1.7	0.9	4	25.0	14.1	2.4	4	0.0	1.8	1.0
	Other	24	0.0	1.7	1.7	24	0.0	1.8	1.6	23	0.0	1.1	1.3	22	25.0	25.9	7.3	24	0.0	1.6	1.5
	ZenTech Neonatal TGal Enzymatic Colorimetric	22	0.0	2.6	1.3	22	0.0	2.6	1.3	21	0.0	2.7	1.0	22	25.0	17.0	4.8	22	0.0	2.9	1.2

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

**Newborn Screening Quality Assurance Program
Year: 2023, Quarter: 3
Mean Reported Concentrations Sorted by Method
Program: Immunoreactive Trypsinogen (IRTPT)**

		Specimen Number																			
		20233008001				20233008002				20233008003				20233008004				20233008005			
Analyte	Method	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD	N	EV	Mean	SD
IRT (ng/mL blood)	AutoDELFLIA® Neonatal IRT PerkinElmer	62	249.6	224.8	30.4	60	10.5	10.1	2.0	60	5.5	4.6	1.2	62	133.8	125.9	15.3	60	14.0	12.7	2.1
	DELFLIA® Neonatal IRT	29	249.6	182.7	31.8	30	10.5	10.0	2.9	30	5.5	4.3	2.7	30	133.8	95.4	21.7	30	14.0	9.3	3.2
	ELISA Neonatal Trypsin MP Biomedicals	3	249.6	248.8	20.3	4	10.5	15.6	4.3	4	5.5	10.4	2.3	3	133.8	219.5	38.3	4	14.0	25.6	7.9
	FEIA IRT Labsystems	12	249.6	259.2	51.3	12	10.5	9.6	4.8	11	5.5	8.1	5.3	12	133.8	168.8	29.4	11	14.0	17.6	7.7
	GSP® IRT Neonatal PerkinElmer, ng/mL blood	81	249.6	249.2	29.1	78	10.5	10.4	1.6	74	5.5	6.4	1.8	81	133.8	127.8	16.2	79	14.0	13.4	1.8
	NeoMAP® IRT Interscientifica	4	249.6	109.0	9.7	4	10.5	9.0	1.4	4	5.5	4.2	1.7	4	133.8	104.4	7.0	4	14.0	14.3	1.5
	Other	16	249.6	251.0	98.3	15	10.5	14.8	5.7	16	5.5	10.1	4.0	16	133.8	166.0	51.4	16	14.0	24.1	8.9
	ZenTech ELISA Neonatal IRT	7	249.6	170.5	40.0	6	10.5	14.3	5.9	7	5.5	10.7	4.4	7	133.8	163.0	30.0	6	14.0	24.9	5.8

Note: EV = Expected Value, SD = Standard Deviation. Methods N < 3 not shown.

This *NEWBORN SCREENING QUALITY ASSURANCE PROGRAM* report is an internal publication distributed to program participants and selected program colleagues. The laboratory quality assurance program is a project cosponsored by the Centers for Disease Control and Prevention (CDC) and the Association of Public Health Laboratories.

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