#### **Table 1: Amino Acid Disorders**

| Overall Result | Disorder             | Screening<br>Result | Screening Result Note  |
|----------------|----------------------|---------------------|--|
| Normal         |                      | Normal              |  |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Amino Acid Disorder. Arginine Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination.  Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Argininemia. Arginine Elevated. Recommend plasma ammonia, plasma quantitative amino acids and urine orotic acid within 48 hours and immediate telephone consultation with a pediatric metabolic specialist.   |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Amino Acid Disorder. Citrulline Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination.  Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible ASA, Citrullinemia or Citrullinemia Type II. Citrulline Elevated. Recommend immediate plasma ammonia, quantitative plasma amino acids, urine organic acids, urine orotic acid and liver function tests within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.                  |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Amino Acid Disorder. Leucine Slightly Elevated; Valine Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.   |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Maple Syrup Urine Disease. Leucine Elevated. Recommend plasma quantitative amino acids and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.  |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Maple Syrup Urine Disease. Leucine Slightly Elevated; Valine Elevated. Recommend plasma quantitative amino acids and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.  |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Amino Acid Disorder. Methionine Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.   |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Homocystinuria or Hypermethioninemia. Methionine Elevated.<br>Recommend quantitative plasma amino acids and plasma total homocysteine and telephone consultation with a pediatric metabolic specialist within 24 hours.   |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Amino Acid Disorder. Phenylalanine Slightly Elevated; Phe/Tyr Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible PKU, Benign Hyperphenylalaninemia, Biopterin defect in cofactor biosynthesis or Biopterin defect in cofactor regeneration. Phenylalanine Slightly Elevated; Phe/Tyr Elevated. Recommend plasma quantitative amino acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible PKU, Benign Hyperphenylalaninemia, Biopterin defect in cofactor biosynthesis or Biopterin defect in cofactor regeneration. Phenylalanine Elevated. Recommend plasma quantitative amino acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.                            |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Tyrosinemia Type I. Succinylacetone Elevated. Recommend plasma quantitative amino acids, succinylacetone and liver function tests within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.   |

#### **Table 1: Amino Acid Disorders**

| Overall Result | Disorder             | Screening<br>Result | Screening Result Note  |
|----------------|----------------------|---------------------|--|
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Amino Acid Disorder. Tyrosine Elevated; Succinylacetone Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Amino Acid Disorder. Tyrosine Slightly Elevated; Succinylacetone Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.   |
| Abnormal       | Amino Acid Disorders | Abnormal            | Possible Tyrosinemia Type II, III or Transient Tyrosinemia of the Neonate.  Tyrosine Elevated; Succinylacetone Normal. Recommend quantitative plasma amino acids, urine organic acids, succinylacetone, liver function tests and telephone consultation with a pediatric metabolic specialist within 24 hours. |
| Abnormal       | Amino Acid Disorders | Non-specific        | Elevation(s) in a non-diagnostic pattern. Repeat the newborn screen within 7 days.   |
| Abnormal       | Amino Acid Disorders | TPN                 | Possible TPN. Repeat the newborn screen when TPN is discontinued.  |
| Abnormal       | Amino Acid Disorders | Revised Result      | free text  |
| Normal         | Amino Acid Disorders | Revised Result      | free text  |
| Unsatisfactory | Amino Acid Disorders | Revised Result      | free text  |

## **Table 2: Fatty Acid Disorders**

| Overall Result | Disorder             | Screening<br>Result | Screening Result Note   |
|----------------|----------------------|---------------------|---|
| Normal         |                      | Normal              |   |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible Fatty Acid Disorder. CO Slightly Low. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.   |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible Fatty Acid Disorder. CO Low; C3+C16 Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.   |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible Fatty Acid Disorder. CO Slightly Low; C3+C16 Low. If this is the second screen, follow recommendations received from Clinical Care Coordination.  Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible CUD. C0 Low for birthweight less than 1000 grams. Place baby on carnitine immediately. Recommend immediate telephone consultation with a pediatric metabolic specialist. Repeat the newborn screen within 7 days.                            |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible CUD. C0 and C3+C16 Low for birthweight less than 1000 grams. Place baby on carnitine immediately. Recommend immediate telephone consultation with a pediatric metabolic specialist. Repeat the newborn screen within 7 days.                 |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible CUD. CO Low. Recommend blood sugar, plasma (free and total) carnitine and maternal plasma (free and total) carnitine within 7 days and immediate telephone consultation with a pediatric metabolic specialist.                               |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible CUD. C0 and C3+C16 Low. Recommend blood sugar, plasma (free and total) carnitine and maternal plasma (free and total) carnitine within 7 days and immediate telephone consultation with a pediatric metabolic specialist.                    |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible CPT1. CO/(C16+C18) Elevated. Recommend plasma carnitine and plasma acylcarnitine profile within 7 days and immediate telephone consultation with a pediatric metabolic specialist.   |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible DE-RED. C10:2 Elevated. Recommend plasma acylcarnitine profile, plasma quantitative amino acids, plasma carnitine, urine acylglycines, urine organic acids and telephone consultation with a pediatric metabolic specialist within 48 hours. |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible VLCAD. C14:1 Slightly Elevated. Recommend plasma acylcarnitine profile and plasma (free and total) carnitine within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. DNA report to follow.               |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible VLCAD. C14:1 Elevated. Recommend plasma acylcarnitine profile and plasma (free and total) carnitine within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. DNA report to follow.                        |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible Fatty Acid Disorder. C16 Slightly Elevated; C18:1, C14, and (C16+C18:1)/C2 Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.        |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible CACT or CPTII. C16 Slightly Elevated. Recommend plasma carnitine, plasma acylcarnitine, and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.                                  |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible CACT or CPTII. C16 Elevated. Recommend plasma carnitine, plasma acylcarnitine, and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.   |

## **Table 2: Fatty Acid Disorders**

| Overall Result | Disorder             | Screening<br>Result | Screening Result Note   |
|----------------|----------------------|---------------------|---|
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible LCHAD or TFP. C16-OH, C16:1-OH, C18-OH, C18:1-OH, and C18:2-OH analyzed to determine result. Recommend plasma acylcarnitine profile, urine organic acids and plasma carnitine profile (free and total carnitine) within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible Fatty Acid Disorder. C4 Slightly Elevated; C4/C2 Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible Fatty Acid Disorder. C4 Elevated; C4/C2 Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination.  Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible SCAD or IBG. C4 and C4/C2 Elevated. Recommend plasma acylcarnitine profile, urine organic acids, urine acylglycines and telephone consultation with a pediatric metabolic specialist within 48 hours.  |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible GA2. C4 and C5 analyzed to determine result. Recommend plasma acylcarnitine profile, urine organic acids, and urine acylglycine analysis within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.   |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible MCAD or MCAT. C8 Slightly Elevated. Recommend plasma acylcarnitine profile, plasma carnitine levels, urine acylglycines, and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. DNA report to follow.   |
| Abnormal       | Fatty Acid Disorders | Abnormal            | Possible MCAD or MCAT. C8 Elevated. Recommend plasma acylcarnitine profile, plasma carnitine levels, urine acylglycines, and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. DNA report to follow.  |
| Abnormal       | Fatty Acid Disorders | Non-specific        | Elevation(s) in a non-diagnostic pattern. Repeat the newborn screen within 7 days.  |
| Abnormal       | Fatty Acid Disorders | TPN                 | Possible TPN. Repeat the newborn screen when TPN is discontinued.   |
| Normal         | Fatty Acid Disorders | Revised Result      | free text   |
| Abnormal       | Fatty Acid Disorders | Revised Result      | free text   |
| Unsatisfactory | Fatty Acid Disorders | Revised Result      | free text   |

# **Table 3: Organic Acid Disorders**

| Overall Result | Disorder               | Screening<br>Result | Screening Result Note   |
|----------------|------------------------|---------------------|---|
| Normal         |                        | Normal              |   |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible Organic Acid Disorder. C3 and C3/C2 analyzed to determine result. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.   |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible Methylmalonic Acidemia or Propionic Acidemia. C3 Elevated. Recommend plasma methylmalonic acid, total plasma homocysteine, plasma acylcarnitine profile and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.                          |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible Methylmalonic Acidemia or Propionic Acidemia. C3 Slightly Elevated; C3/C2 Elevated. Recommend plasma methylmalonic acid, total plasma homocysteine, plasma acylcarnitine profile and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible Organic Acid Disorder. C3DC+C4OH Slightly Elevated; C3DC+C4OH/C5DC Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible MAL or M/SCHAD. C3DC+C4OH Elevated. Recommend plasma acylcarnitine profile, plasma insulin, plasma methylmalonic acid, urine organic acids and telephone consultation with a pediatric metabolic specialist within 48  |
| Abnormal       | Organic Acid Disorders | Abnormal            | hours.  Possible Organic Acid Disorder. C5 Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible Isovaleric Acidemia or 2MBG. C5 Elevated. Recommend plasma acylcarnitine profile, urine organic acids and urine acylglycines within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.   |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible GA1. C5DC Elevated. Recommend plasma acylcarnitine profile and urine organic acids within 7 days and immediate telephone consultation with a pediatric metabolic specialist.   |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible Organic Acid Disorder. C5-OH Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.   |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible Organic Acid Disorder. C5:1 Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible 3MCC, HMG, MCD, 3MGA or 2M3HBA. C5-OH Elevated. Recommend urine organic acids, urine acylglycines and plasma acylcarnitine profile on infant and mother within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.  |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible 3MCC, HMG, MCD, BKT, 3MGA or 2M3HBA. C5-OH and C5:1 Elevated. Recommend urine organic acids, urine acylglycines and plasma acylcarnitine profile on infant and mother within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.                                    |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible 3MCC, HMG, MCD, BKT, 3MGA or 2M3HBA. C5-OH Slightly Elevated; C5:1 Elevated. Recommend urine organic acids, urine acylglycines and plasma acylcarnitine profile on infant and mother within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.                     |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible BKT. C5:1 Elevated; C5-OH and C6DC Normal. Recommend urine organic acids, plasma acylcarnitine profile and urine acylglycines on infant and mother within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.   |

# **Table 3: Organic Acid Disorders**

| Overall Result | Disorder               | Screening<br>Result | Screening Result Note   |
|----------------|------------------------|---------------------|---|
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible HMG. C5-OH and C6DC Elevated; C5:1 Normal. Recommend urine organic acids, plasma acylcarnitine profile and urine acylglycines on infant and mother within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.                 |
| Abnormal       | Organic Acid Disorders | Abnormal            | Possible HMG. C5-OH Slightly Elevated; C6DC Elevated; C5:1 Normal.  Recommend urine organic acids, plasma acylcarnitine profile and urine acylglycines on infant and mother within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. |
| Abnormal       | Organic Acid Disorders | Non-specific        | Elevation(s) in a non-diagnostic pattern. Repeat the newborn screen within 7 days.  |
| Abnormal       | Organic Acid Disorders | TPN                 | Possible TPN. Repeat the newborn screen when TPN is discontinued.   |
| Normal         | Organic Acid Disorders | Revised Result      | free text   |
| Abnormal       | Organic Acid Disorders | Revised Result      | free text   |
| Unsatisfactory | Organic Acid Disorders | Revised Result      | free text   |

#### **Table 4: Galactosemia**

| Overall Result | Disorder     | Screening<br>Result | Screening Result Note  |
|----------------|--------------|---------------------|--|
| Normal         | Galactosemia | Normal              |  |
| Abnormal       | Galactosemia | Abnormal            | Possible Galactosemia. GALT activity Low. If this is the first screen, recommend serum GALT enzyme within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. Otherwise, follow recommendations received from Clinical Care Coordination. DNA report to follow.                             |
| Abnormal       | Galactosemia | Abnormal            | GALT activity Indeterminate. Result may be due to limitation of the test method and should be considered in context of the child's clinical status. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days. DNA report to follow. |
| Abnormal       | Galactosemia | Revised Result      | free text  |
| Normal         | Galactosemia | Revised Result      | free text  |
| Unsatisfactory | Galactosemia | Revised Result      | free text  |

# **Table 5: Biotinidase Deficiency**

| Overall Result | Disorder               | Screening<br>Result | Screening Result Note  |
|----------------|------------------------|---------------------|--|
| Normal         | Biotinidase Deficiency | Normal              |  |
| Abnormal       | Biotinidase Deficiency | Abnormal            | Possible Biotinidase Deficiency. Biotinidase activity Low. Recommend serum biotinidase and telephone consultation with a pediatric metabolic specialist within 7 days. If this is the first screen, repeat the newborn screen within 7 days. |
| Abnormal       | Biotinidase Deficiency | Revised Result      | free text  |
| Normal         | Biotinidase Deficiency | Revised Result      | free text  |
| Unsatisfactory | Biotinidase Deficiency | Revised Result      | free text  |

## **Table 6: Hypothyroidism**

| Overall Result | Disorder       | Screening<br>Result | Screening Result Note   |
|----------------|----------------|---------------------|---|
| Normal         | Hypothyroidism | Normal              |   |
| Abnormal       | Hypothyroidism | Abnormal            | Possible Hypothyroidism. TSH Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.            |
| Abnormal       | Hypothyroidism | Abnormal            | Possible Hypothyroidism. TSH Moderately Elevated. Recommend TSH, Free T4, and T4 within 5 days. If this is the first screen, repeat the newborn screen within 7 days.   |
| Abnormal       | Hypothyroidism | Abnormal            | Possible Hypothyroidism. TSH Very Elevated. Recommend TSH, Free T4, and T4 and refer to an endocrinologist within 24 hours. If this is the first screen, repeat the newborn screen within 7 days.             |
| Abnormal       | Hypothyroidism | Abnormal            | Possible Hypothyroidism. T4 Low. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.                           |
| Abnormal       | Hypothyroidism | Abnormal            | Possible Hypothyroidism. T4 Low; TSH Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.    |
| Abnormal       | Hypothyroidism | Abnormal            | Possible Hypothyroidism. T4 Low; TSH Moderately Elevated. Recommend TSH, Free T4, and T4 and refer to an endocrinologist within 5 days. If this is the first screen, repeat the newborn screen within 7 days. |
| Abnormal       | Hypothyroidism | Abnormal            | Possible Hypothyroidism. T4 Low; TSH Very Elevated. Recommend TSH, Free T4, and T4 and refer to an endocrinologist within 24 hours. If this is the first screen, repeat the newborn screen within 7 days.     |
| Abnormal       | Hypothyroidism | Abnormal            | Possible TBG Excess. T4 Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.                          |
| Abnormal       | Hypothyroidism | Abnormal            | Possible Hyperthyroidism. T4 and TSH Elevated. Recommend TSH, Free T4, and T4 and refer to an endocrinologist within 5 days.  |
| Abnormal       | Hypothyroidism | Revised Result      | free text   |
| Normal         | Hypothyroidism | Revised Result      | free text   |
| Unsatisfactory | Hypothyroidism | Revised Result      | free text   |

#### Table 7: CAH

| Overall Result | Disorder | Screening<br>Result | Screening Result Note   |
|----------------|----------|---------------------|---|
| Normal         | САН      | Normal              |   |
| Abnormal       | САН      | Abnormal            | Possible CAH. 17-Hydroxyprogesterone Elevated for birth weight less than 2500 grams. Insufficient specimen to complete reflex testing. Repeat the newborn screen within 7 days.   |
| Abnormal       | САН      | Abnormal            | Possible CAH. 17-Hydroxyprogesterone (17-OHP) Very Elevated for birth weight less than 2500 grams. Insufficient specimen to complete reflex testing.  Recommend serum 17-OHP, sodium and potassium and refer to an endocrinologist within 24 hours.   |
| Abnormal       | САН      | ∟ ∆nn∩rmai          | Possible CAH. 17-Hydroxyprogesterone Slightly Elevated for birth weight greater than or equal to 2500 grams. Insufficient specimen to complete reflex testing. If this is the second newborn screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days. |
| Abnormal       | САН      | Abnormal            | Possible CAH. 17-Hydroxyprogesterone (17-OHP) Moderately Elevated for birth weight greater than or equal to 2500 grams. Insufficient specimen to complete reflex testing. Recommend serum 17-OHP, sodium and potassium within 24 hours.   |
| Abnormal       | САН      | ⊢∆hn∩rmal           | Probable CAH. 17-Hydroxyprogesterone (17-OHP) Very Elevated for birth weight greater than or equal to 2500 grams. Insufficient specimen to complete reflex testing. Recommend serum 17-OHP and daily sodium and potassium and refer to an endocrinologist within 24 hours.  |
| Abnormal       | САН      | Abnormal            | Probable CAH. 17-Hydroxyprogesterone (17-OHP) Elevated and reflex panel Abnormal. Recommend serum 17-OHP within 24 hours. Follow additional recommendations received from Clinical Care Coordination.   |
| Abnormal       | САН      | Abnormal            | Possible CAH. 17-Hydroxyprogesterone Elevated and reflex panel Abnormal for birth weight less than 2500 grams. Repeat the newborn screen within 7 days. Follow additional recommendations received from Clinical Care Coordination.   |
| Abnormal       | САН      | Revised Result      | free text   |
| Normal         | САН      | Revised Result      | free text   |
| Unsatisfactory | САН      | Revised Result      | free text   |

| Overall Result | Disorder           | Screening<br>Result | Screening Result Note   |
|----------------|--------------------|---------------------|---|
| Normal         | Hemoglobinopathies | Normal              |   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Normal. Only Hemoglobin A detected. If result is due to transfusion, repeat in three months post transfusion.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable C Trait. Hemoglobin A,C detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable C Trait. Hemoglobin A,C,F detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable D Trait. Hemoglobin A,D detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable D Trait. Hemoglobin A,D,F detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable E Trait. Hemoglobin A,E detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable E Trait. Hemoglobin A,E,F detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Normal. Hemoglobin A,F detected. If result is due to transfusion, repeat in three months post transfusion.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable C Trait. Hemoglobin A,F,C detected. Notify family of test results. DNA report to follow.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable D Trait. Hemoglobin A,F,D detected. Notify family of test results. DNA report to follow.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable G Trait. Hemoglobin A,F,G detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Unidentified Hb Variant Trait. Hemoglobin A,F,Other detected. Notify family of test results. For additional information see (http://www.dshs.texas.gov/newborn/pdf/fAOther.pdf).                   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Unidentified Hb Variant Trait and Alpha Thalassemia Trait. Hemoglobin A,F,Other,Barts detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age. |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait. Hemoglobin A,F,S detected. Notify family of test results. DNA report to follow.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait and Alpha Thalassemia Trait. Hemoglobin A,F,S,Barts detected. Notify family of test results. DNA report to follow.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable G Trait. Hemoglobin A,G detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable G Trait. Hemoglobin A,G,F detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Unidentified Hb Variant Trait. Hemoglobin A,Other detected. Notify family of test results. For additional information see (http://www.dshs.texas.gov/newborn/pdf/fAOther.pdf).                     |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait. Hemoglobin A,S detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait. Hemoglobin A,S,F detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Hemoglobin C/Beta Thalassemia Disease. Hemoglobin C,A detected.<br>Refer to pediatric hematologist within one month. DNA report to follow.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable CC Disease. Only Hemoglobin C detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable CC Disease. Hemoglobin C,F detected. Refer to pediatric hematologist within one month. DNA report to follow.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable EE Disease. Only Hemoglobin E detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable EE Disease. Hemoglobin E,F detected. Refer to pediatric hematologist within one month. DNA report to follow.   |

| Overall Result | Disorder           | Screening<br>Result | Screening Result Note   |
|----------------|--------------------|---------------------|---|
| Abnormal       | Hemoglobinopathies | Abnormal            | Possible Beta Thalassemia Major. Only Hemoglobin F detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Alpha Thalassemia Trait. Hemoglobin F,A,Barts detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable C Trait. Hemoglobin F,A,C detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable C Trait and Alpha Thalassemia Trait. Hemoglobin F,A,C,Barts detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable C Trait and G Trait. Hemoglobin F,A,C,G detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable C Trait, G Trait, and Alpha Thalassemia Trait. Hemoglobin F,A,C,G,Barts detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age.               |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable C Trait and Unidentified Hb Variant Trait. Hemoglobin F,A,C,Other detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age.                     |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable D Trait. Hemoglobin F,A,D detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable D Trait and Alpha Thalassemia Trait. Hemoglobin F,A,D,Barts detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable E Trait. Hemoglobin F,A,E detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable E Trait and Alpha Thalassemia Trait. Hemoglobin F,A,E,Barts detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable H Disease. Hemoglobin F,A,elevated Barts detected. Refer to a pediatric hematologist within one month.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable G Trait. Hemoglobin F,A,G detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable G Trait and Alpha Thalassemia Trait. Hemoglobin F,A,G,Barts detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age.                           |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable O-Arab Trait. Hemoglobin F,A,O-Arab detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Unidentified Hb Variant Trait. Hemoglobin F,A,Other detected. Notify family of test results. For additional information see (http://www.dshs.texas.gov/newborn/pdf/fAOther.pdf).                   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Unidentified Hb Variant Trait and Alpha Thalassemia Trait. Hemoglobin F,A,Other,Barts detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age. |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait. Hemoglobin F,A,S detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait and Unidentified Hb Variant. Hemoglobin F,A,S,Other detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age.                           |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait and Alpha Thalassemia Trait. Hemoglobin F,A,S,Barts detected. Notify family of test results.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait and G Trait. Hemoglobin F,A,S,G detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable S Trait, G Trait, and Alpha Thalassemia Trait. Hemoglobin F,A,S,G,Barts detected. Notify family of test results. Consult with pediatric hematologist between 6 and 12 months of age.               |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable CC Disease. Hemoglobin F,C detected. Refer to pediatric hematologist within one month. DNA report to follow.   |

| Overall Result | Disorder           | Screening<br>Result | Screening Result Note  |
|----------------|--------------------|---------------------|--|
| Abnormal       | Hemoglobinopathies | Abnormal            | Possible CC or Hemoglobin C/Beta Thalassemia Disease. Hemoglobin F,C (A Questionable) detected. Refer to pediatric hematologist within one month. DNA report to follow.    |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Hemoglobin C/Beta Thalassemia Disease. Hemoglobin F,C,A detected. Refer to pediatric hematologist within one month. DNA report to follow.                         |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable CC Disease and Alpha Thalassemia Trait. Hemoglobin F,C,Barts detected. Refer to pediatric hematologist within one month. DNA report to follow.                    |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable CE Disease. Hemoglobin F,C,E detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable DD Disease. Hemoglobin F,D detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable EE Disease. Hemoglobin F,E detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Possible EE or Hemoglobin E/Beta Thalassemia Disease. Hemoglobin F,E (A Questionable) detected. Refer to pediatric hematologist within one month. DNA report to follow.    |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable EE Disease and Alpha Thalassemia Trait. Hemoglobin F,E,Barts detected. Refer to pediatric hematologist within one month. DNA report to follow.                    |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable GG Disease. Hemoglobin F,G detected. Refer to pediatric hematologist within one month.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Unidentified Hb Variant. Hemoglobin F,Other detected. Refer to pediatric hematologist within one month. DNA report to follow.                                     |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SS Disease. Hemoglobin F,S detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Possible Sickle Cell or Sickle Beta Thalassemia Disease. Hemoglobin F,S (A Questionable) detected. Refer to pediatric hematologist within one month. DNA report to follow. |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Sickle Beta Thalassemia Disease. Hemoglobin F,S,A detected. Refer to pediatric hematologist within one month. DNA report to follow.                               |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SS Disease and Alpha Thalassemia Trait. Hemoglobin F,S,Barts detected. Refer to pediatric hematologist within one month. DNA report to follow.                    |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SC Disease. Hemoglobin F,S,C detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SC Disease and Alpha Thalassemia Trait. Hemoglobin F,S,C,Barts detected. Refer to pediatric hematologist within one month. DNA report to follow.                  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SD Disease. Hemoglobin F,S,D detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SE Disease. Hemoglobin F,S,E detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable Sickle Beta Thalassemia Disease. Hemoglobin S,A detected. Refer to pediatric hematologist within one month. DNA report to follow.                                 |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SC Disease. Hemoglobin S,C detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SC Disease. Hemoglobin S,C,F detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SS Disease. Hemoglobin S,F detected. Refer to pediatric hematologist within one month. DNA report to follow.  |
| Abnormal       | Hemoglobinopathies | Abnormal            | Probable SS Disease. Only Hemoglobin S detected. Refer to pediatric hematologist within one month. DNA report to follow.   |
| Abnormal       | Hemoglobinopathies | Abnormal            | free text  |

| Overall Result | Disorder           | Screening<br>Result | Screening Result Note |
|----------------|--------------------|---------------------|-----------------------|
| Abnormal       | Hemoglobinopathies | Revised Result      | free text             |
| Normal         | Hemoglobinopathies | Revised Result      | free text             |
| Unsatisfactory | Hemoglobinopathies | Revised Result      | free text             |

| Overall Result | Disorder        | Screening<br>Result                          | Screening Result Note   |
|----------------|-----------------|--|---|
| Normal         | Cystic Fibrosis | Normal                                       |   |
| Normal         | Cystic Fibrosis | Normal                                       | No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Normal. None of the CFTR variants in the DSHS panel were detected. However, the presence of other variants not included in the panel cannot be ruled out.   |
| Abnormal       | Cystic Fibrosis | Indeterminate                                | Repeat the newborn screen within 72 hours. Immunoreactive Trypsinogen (IRT) Elevated. Many unaffected infants have an elevated IRT level on the first specimen. The second screening specimen is required to determine if result is significant.  |
| Abnormal       | Cystic Fibrosis | Inconclusive                                 | No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. Elevated IRT level is consistent with the previous newborn screening result. None of the CFTR variants in the DSHS panel were detected in the previous specimen.  |
| Abnormal       | Cystic Fibrosis | Abnormal                                     | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. This result is consistent with the previous newborn screening specimen results for the same baby. CF cannot be ruled out.  |
| Abnormal       | Cystic Fibrosis | Abnormal                                     | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. This result is consistent with the previous newborn screening specimen results for the same baby. The previous specimen results are indicative of CF.  |
| Abnormal       | Cystic Fibrosis | Result may be<br>Abnormal or<br>Inconclusive | Revised Screening Result for Cystic Fibrosis (CF). Additional testing using a CFTR Mutation Panel has been performed. (Note: Result notes vary depending on the results applied for CFTR Mutation Panel) [The specimen was originally reported as Indeterminate for CF. The original screening result note read "Repeat the newborn screen within 72 hours. Immunoreactive Trypsinogen (IRT) Elevated. Many unaffected infants have an elevated IRT level on the first specimen. The second screening specimen is required to determine if result is significant."] |
| Abnormal       | Cystic Fibrosis | Inconclusive                                 | No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal                                     | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Very Elevated. None of the CFTR variants in the DSHS panel were detected. Although there is a minimal risk for CF in the absence of detected variants, a very elevated IRT result may be indicative of CF due to variants not included in the panel.   |
| Abnormal       | Cystic Fibrosis | Abnormal                                     | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 1078delT (c.948delT), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.   |
| Abnormal       | Cystic Fibrosis | Abnormal                                     | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 1717-1G>A (c.1585-1G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note  |
|----------------|-----------------|---------------------|--|
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 1898+1G>A (c.1766+1G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.         |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 2183AA>G (c.2051_2052delAAinsG), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 2184delA (c.2052delA), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.           |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 2789+5G>A (c.2657+5G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.         |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 3120+1G>A (c.2988+1G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.         |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 3659delC (c.3528delC), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.           |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 3849+10kbC>T (c.3717+12191C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 3849+4A>G (c.3717+4A>G), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.         |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 3876delA (c.3744delA), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.           |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 3905insT (c.3773_3774insT), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.      |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 394delTT (c.262_263delTT), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.       |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 621+1G>T (c.489+1G>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.              |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 711+1G>T (c.579+1G>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.              |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, A455E (c.1364C>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, D1152H (c.3454G>C), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                 |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, DF508 (c.1521_1523delCTT), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.          |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, DI507 (c.1519_1521delATC), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant which is not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, E60X (c.178G>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                    |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, G542X (c.1624G>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, G551D (c.1652G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, G85E (c.254G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                    |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, N1303K (c.3909C>G), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                 |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, Q493X (c.1477C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R1162X (c.3484C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                                       |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R117H with IVS8-5T/7T (c.[350G>A;1210-12[5]/1210-12[7]]), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R117H with IVS8-7T/7T (c.[350G>A;1210-12[7]/1210-12[7]]), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R117H with IVS8-7T/9T (c.[350G>A;1210-12[7]/1210-12[9]]), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R117H with IVS8-9T/9T (c.[350G>A;1210-12[9]/1210-12[9]]), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R334W (c.1000C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R347H (c.1040G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R347P (c.1040G>C), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R553X (c.1657C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R560T (c.1679G>C), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.      |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, S549N (c.1646G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.      |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, S549R A>C (c.1645A>C), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, S549R T>G (c.1647T>G), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, V520F (c.1558G>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.      |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, W1282X (c.3846G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.     |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, Y1092X C>A (c.3276C>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, Y1092X C>G (c.3276C>G), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, Y122X (c.366T>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.       |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 406-1G>A (c.274-1G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 935delA (c.803delA), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.    |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 1677delTA (c.1545_1546delTA), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.             |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 1898+5G->T (c.1766+5G>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                 |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 2055del9>A (c.1923_1931del9insA), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.         |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 2143delT (c.2012delT), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                    |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 2307insA (c.2175_2176insA), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.               |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 3791delC (c.3659delC), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                    |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, 3199del6 (c.3067_3072delATAGTG), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.          |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, A559T (c.1675G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                        |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, CFTRdele2,3 (c.54-5940_273+10250del21kb), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, G178R (c.532G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                         |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, G330X (c.988G>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, K710X (c.2128A>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, L206W (c.617T>G), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, M1101K (c.3302T>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                                       |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, Q890X (c.2668C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R75X (c.223C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R117H (c.350G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R117H with IVS8-5T/5T (c.[350G>A;1210-12[5]/1210-12[5]]), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R117H with IVS8-5T/9T (c.[350G>A;1210-12[5]/1210-12[9]]), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R1066C (c.3196C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.                                       |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, R1158X (c.3472C>T), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, S1196X (c.3587C>G), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, S1255X (c.3764C>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. One variant, W1089X (c.3266G>A), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, DF508 (c.1521 1523delCTT), in the CFTR gene was identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and G542X (c.1624G>T), in the CFTR gene were identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and G551D (c.1652G>A), in the CFTR gene were identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and N1303K (c.3909C>G), in the CFTR gene were identified.                                       |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and W1282X (c.3846G>A), in the CFTR gene were identified.                                       |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R553X (c.1657C>T), in the CFTR gene were identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 621+1G>T (c.489+1G>T), in the CFTR gene were identified.                                    |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R117H with IVS8-5T/7T (c.[350G>A;1210-12[5]/1210-12[7]]), in the CFTR gene were identified. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R117H with IVS8-7T/7T (c.[350G>A;1210-12[7]/1210-12[7]]), in the CFTR gene were identified. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R117H with IVS8-7T/9T (c.[350G>A;1210-12[7]/1210-12[9]]), in the CFTR gene were identified. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R117H with IVS8-9T/9T (c.[350G>A;1210-12[9]/1210-12[9]]), in the CFTR gene were identified. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, 935delA (c.803delA), in the CFTR gene was identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, 1078delT (c.948delT), in the CFTR gene was identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, G551D (c.1652G>A), in the CFTR gene was identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, Q493X (c.1477C>T), in the CFTR gene was identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, R117H with IVS8-7T/7T (c.[350G>A;1210-12[7]/1210-12[7])), in the CFTR gene was identified.                      |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, 3876delA (c.3744delA), in the CFTR gene was identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, L206W (c.617T>G), in the CFTR gene was identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. An apparently homozygous CF-causing variant, D1152H (c.3454G>C), in the CFTR gene was identified.  |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 1717-1G>A (c.1585-1G>A), in the CFTR gene were identified.    |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 2184delA (c.2052delA), in the CFTR gene were identified.      |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 2307insA (c.2175_2176insA), in the CFTR gene were identified. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 2789+5G>A (c.2657+5G>A), in the CFTR gene were identified.    |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 3120+1G>A (c.2988+1G>A), in the CFTR gene were identified.    |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 3876delA (c.3744delA), in the CFTR gene were identified.      |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and D1152H (c.3454G>C), in the CFTR gene were identified.         |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and DI507 (c.1519_1521delATC), in the CFTR gene were identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and G85E (c.254G>A), in the CFTR gene were identified.            |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and L206W (c.617T>G), in the CFTR gene were identified.           |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508(c.1521_1523delCTT) and Q493X (c.1477C>T), in the CFTR gene were identified.           |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note  |
|----------------|-----------------|---------------------|--|
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R1162X (c.3484C>T), in the CFTR gene were identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R117H with IVS8-5T/9T (c.[350G>A;1210-12[5]/1210-12[9]]), in the CFTR gene were identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and S1255X (ex. 20) (c.3764C>A), in the CFTR gene were identified. A variant of uncertain significance, S1255X (ex. 19) (I1203V, c.3607A>G), was also identified. While S1255X (ex. 19) and S1255X (ex. 20) are two separate mutations, they are generally considered a haplotype with the two mutations occurring together (Cutting G, et al. 1992. Am. J. Hum. Genet. 50:1185-1194). |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and S549N (c.1646G>A), in the CFTR gene were identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 3791delC (c.3659delC), in the CFTR gene were identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and G330X (c.988G>T), in the CFTR gene were identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 2055del9>A (c.1923_1931del9insA), in the CFTR gene were identified.  |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 1898+1 G>A (c.1766+1 G>A), in the CFTR gene were identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 3659delC (c.3528delC), in the CFTR gene were identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 3849+10kbC>T (c.3717+12191C>T), in the CFTR gene were identified.  |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 3905insT (c.3773_3774insT), in the CFTR gene were identified.               |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and 406-1G>A (c.274-1G>A), in the CFTR gene were identified.                    |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and A455E (c.1364C>A), in the CFTR gene were identified.                        |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and CFTRdele2,3 (c.54-5940_273+10250del21kb), in the CFTR gene were identified. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R1158X (c.3472C>T), in the CFTR gene were identified.                       |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R347H (c.1040G>A), in the CFTR gene were identified.                        |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R347P (c.1040G>C), in the CFTR gene were identified.                        |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DI507 (c.1519_1521delATC) and D1152H (c.3454G>C), in the CFTR gene were identified.                       |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, G542X (c.1624G>T) and 2055del9>A (c.1923_1931del9insA), in the CFTR gene were identified.                 |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, G542X (c.1624G>T) and L206W (c.617T>G), in the CFTR gene were identified.                                 |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, L206W (c.617T>G) and Q493X (c.1477C>T), in the CFTR gene were identified.                                 |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note   |
|----------------|-----------------|---------------------|---|
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, L206W (c.617T>G) and S549N (c.1646G>A), in the CFTR gene were identified.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, 2789+5G>A (c.2657+5G>A) and R117H with IVS8-7T/7T (c.[350G>A;1210-12[7]/1210-12[7]]), in the CFTR gene were identified.         |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, D1152H (c.3454G>C) and R117H with IVS8-7T/7T (c.[350G>A;1210-12[7]/1210-12[7]]), in the CFTR gene were identified.              |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, R347H (c.1040G>A) and R117H with IVS8-5T/7T (c.[350G>A;1210-12[5]/1210-12[7]]), in the CFTR gene were identified.               |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, R560T (c.1679G>C) and R117H with IVS8-7T/7T (c.[350G>A;1210–12[7]/1210–12[7]]), in the CFTR gene were identified.               |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, 3199del6 (c.3067_3072delATAGTG) and R117H with IVS8-7T/9T (c.[350G>A;1210-12[7]/1210-12[9])), in the CFTR gene were identified. |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, 2307insA (c.2175_2176insA) and R117H with IVS8-7T/7T (c.[350G>A;1210-12[7]/1210-12[7]]), in the CFTR gene were identified.      |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, G542X (c.1624G>T) and R117H with IVS8-7T/9T (c.[350G>A; 1210-12[7]/1210-12[9]]), in the CFTR gene were identified.              |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, G551D (c.1652G>A) and R117H with IVS8-5T/7T (c.[350G>A;1210-12[5]/1210-12[7]]), in the CFTR gene were identified.               |
| Abnormal       | Cystic Fibrosis | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, D1152H (c.3454G>C) and L206W (c.617T>G), in the CFTR gene were identified.  |
| Abnormal       | Galactosemia    | Abnormal            | Probable Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Elevated. Two potential CF-causing variants, DF508 (c.1521_1523delCTT) and R117H with IVS8-5T/5T (c.[350G>A;1210-12[5]/1210-12[5]]), in the CFTR gene were identified.       |

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note  |
|----------------|-----------------|---------------------|--|
| Abnormal       | Cystic Fibrosis | Normal              | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Normal. One variant, DF508 (c.1521_1523delCTT), in the CFTR gene was identified. CF cannot be ruled out due to a possibility of a second variant not included in the panel.   |
| Abnormal       | Cystic Fibrosis | Inconclusive        | No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected except a "No Call" result for both the wild type and variant R75X loci. Possible reason for a "No Call" result includes a variant or polymorphism within or around the primer annealing sites. There is a minimal risk for Cystic Fibrosis due to a variant not included in the panel. Clinical evaluation not necessary unless symptomatic.   |
| Abnormal       | Cystic Fibrosis | Inconclusive        | No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected except a "No Call" result for both the wild type and variant R1162X loci. Possible reason for a "No Call" result includes a variant or polymorphism within or around the primer annealing sites. There is a minimal risk for Cystic Fibrosis due to a variant not included in the panel. Clinical evaluation not necessary unless symptomatic. |
| Abnormal       | Cystic Fibrosis | Inconclusive        | Immunoreactive Trypsinogen (IRT) Elevated. Many unaffected infants have an elevated IRT level. Additional testing for a panel of mutations in the CFTR gene is in progress to determine if result is significant. Final report with CFTR Mutation panel results to follow.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | Possible Cystic Fibrosis (CF). Recommend referral for confirmatory sweat testing and consider genetic counseling within 7 days. Immunoreactive Trypsinogen (IRT) Very Elevated. Although there is a minimal risk for CF in the absence of detected variants, a very elevated IRT result may be indicative of CF. Additional testing for a panel of mutations in the CFTR gene is in progress. Final report with CFTR Mutation panel results to follow.   |
| Abnormal       | Cystic Fibrosis | Abnormal            | free text  |
| Normal         | Cystic Fibrosis | Revised Result      | free text  |
| Abnormal       | Cystic Fibrosis | Revised Result      | free text  |
| Unsatisfactory | Cystic Fibrosis | Revised Result      | free text  |

#### Table 10: SCID

| Overall Result | Disorder | Screening<br>Result | Screening Result Note  |
|----------------|----------|---------------------|--|
| Normal         | SCID     | Normal              |  |
| Abnormal       | SCID     | Abnormal            | Possible Severe Combined Immunodeficiency or other T-cell lymphopenia. T-cell receptor excision circles (TREC) number Very Low. Follow recommendations received from Clinical Care Coordination. |
| Abnormal       | SCID     | Revised Result      | free text  |
| Normal         | SCID     | Revised Result      | free text  |
| Unsatisfactory | SCID     | Revised Result      | free text  |

#### Table 11: X-ALD

| Overall Result | Disorder | Screening<br>Result | Screening Result Note   |
|----------------|----------|---------------------|---|
| Normal         | X-ALD    | Normal              |   |
| Abnormal       | X-ALD    | Abnormal            | Possible X-ALD. C26:0 LPC Elevated. Recommend confirmatory very long chain fatty acids and consultation with a pediatric metabolic specialist or pediatric neurogeneticist within 7 days. DNA report to follow. |
| Abnormal       | X-ALD    | Abnormal            | Possible X-ALD. C26:0 LPC Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.                 |
| Abnormal       | X-ALD    | Revised Result      | free text   |
| Normal         | X-ALD    | Revised Result      | free text   |
| Unsatisfactory | X-ALD    | Revised Result      | free text   |

#### Table 12: SMA

| Overall Result | Disorder | Screening<br>Result | Screening Result Note   |
|----------------|----------|---------------------|---|
| Normal         | SMA      | Normal              |   |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. Zero copies of SMN2 detected. Recommend rapid molecular confirmation including SMN1 and SMN2 copy number and telephone consultation and referral to a neurologist or neurogeneticist within 24 hours.   |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. One copy of SMN2 detected. Recommend rapid molecular confirmation including SMN1 and SMN2 copy number and telephone consultation and referral to a neurologist or neurogeneticist within 24 hours.  |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. Two copies of SMN2 detected. Recommend rapid molecular confirmation including SMN1 and SMN2 copy number and telephone consultation and referral to a neurologist or neurogeneticist within 24 hours.  |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. Three copies of SMN2 detected. Recommend rapid molecular confirmation including SMN1 and SMN2 copy number and telephone consultation and referral to a neurologist or neurogeneticist within 24 hours.  |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. Four copies of SMN2 detected. Recommend rapid molecular confirmation including SMN1 and SMN2 copy number and telephone consultation and referral to a neurologist or neurogeneticist within 72 hours.   |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. Four or more copies of SMN2 detected. Recommend rapid molecular confirmation including SMN1 and SMN2 copy number and telephone consultation and referral to a neurologist or neurogeneticist within 72 hours.   |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. Five or more copies of SMN2 detected. Recommend rapid molecular confirmation including SMN1 and SMN2 copy number within 24 hours and referral to a neurologist or neurogeneticist within 7 days.  |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. SMN2 copy number cannot be determined. Recommend rapid molecular confirmation including SMN1 and SMN2 copy number and telephone consultation and referral to a neurologist or neurogeneticist within 24 hours.  |
| Abnormal       | SMA      | Abnormal            | Probable Spinal Muscular Atrophy. Deletion of SMN1 exon 7 detected. This result is consistent with the previous newborn screening specimen results for the same baby. If not already completed, recommend rapid molecular confirmation including SMN1 and SMN2 copy number and telephone consultation and referral to a neurologist or neurogeneticist within 24 hours. |
| Abnormal       | SMA      | Abnormal            | free text   |
| Normal         | SMA      | Revised Result      | free text   |
| Abnormal       | SMA      | Revised Result      | free text   |
| Unsatisfactory | SMA      | Revised Result      | free text   |

#### **Table 13: Lysosomal Diseases**

| Overall Result | Disorder           | Screening<br>Result | Screening Result Note   |
|----------------|--------------------|---------------------|---|
| Normal         | Lysosomal Diseases | Normal              |   |
| Abnormal       | Lysosomal Diseases | Abnormal            | Probable Krabbe disease. GALC activity Low. Psychosine Elevated. Recommend immediate consultation with a Krabbe Referral Center. Follow recommendations received from Clinical Care Coordination.   |
| Abnormal       | Lysosomal Diseases | Abnormal            | Probable Krabbe disease. GALC activity Low. Psychosine Elevated. A homozygous 30KB Deletion was detected. Recommend immediate consultation with a Krabbe Referral Center. Follow recommendations received from Clinical Care Coordination.  |
| Abnormal       | Lysosomal Diseases | Abnormal            | Probable Krabbe disease. GALC activity Low. Psychosine Elevated. A heterozygous 30KB Deletion was detected. Recommend immediate consultation with a Krabbe Referral Center. Follow recommendations received from Clinical Care Coordination.  |
| Abnormal       | Lysosomal Diseases | Abnormal            | Probable Krabbe disease. GALC activity Low. Psychosine Elevated. No 30KB Deletion Detected. Recommend immediate consultation with a Krabbe Referral Center. Follow recommendations received from Clinical Care Coordination.  |
| Abnormal       | Lysosomal Diseases | Abnormal            | Probable Krabbe disease. GALC activity Low. Psychosine Normal. A homozygous 30KB Deletion was detected. Recommend immediate consultation with a Krabbe Referral Center. Follow recommendations received from Clinical Care Coordination.  |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Krabbe disease. GALC activity Low. Psychosine Normal. A heterozygous 30KB Deletion was detected. Recommend consultation with a Krabbe Referral Center within 72 hours. Follow recommendations received from Clinical Care Coordination.  |
| Abnormal       | Lysosomal Diseases | Indeterminate       | Repeat the newborn screen within 72 hours. GALC activity Low. Insufficient or unsatisfactory sample to complete reflex testing.   |
| Abnormal       | Lysosomal Diseases | Abnormal            | Probable Krabbe disease. GALC activity Low. Psychosine Slightly Elevated. A homozygous 30KB Deletion was detected. Recommend immediate consultation with a Krabbe Referral Center. Follow recommendations received from Clinical Care Coordination.   |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Krabbe disease. GALC activity Low. Psychosine Slightly Elevated. A heterozygous 30KB Deletion was detected. Recommend consultation with a Krabbe Referral Center within 72 hours. Follow recommendations received from Clinical Care Coordination.   |
| Abnormal       | Lysosomal Diseases | Abnormal            | Probable Krabbe disease. GALC activity Low. A homozygous 30KB Deletion was detected. Insufficient or unsatisfactory sample to complete Psychosine testing. Recommend immediate consultation with a Krabbe Referral Center. Follow recommendations received from Clinical Care Coordination.         |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Krabbe disease. GALC activity Low. A heterozygous 30KB Deletion was detected. Insufficient or unsatisfactory sample to complete Psychosine testing. Recommend consultation with a Krabbe Referral Center within 72 hours. Follow recommendations received from Clinical Care Coordination. |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Krabbe disease. GALC activity Low. Psychosine Slightly Elevated. Recommend consultation with a Krabbe Referral Center within 72 hours. Follow recommendations received from Clinical Care Coordination.  |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Krabbe disease. GALC activity Low. Psychosine Slightly Elevated. No 30KB Deletion Detected. Recommend consultation with a Krabbe Referral Center within 72 hours. Follow recommendations received from Clinical Care Coordination.   |

#### TEXAS Health and Human Services Health Services

| Overall Result | Disorder           | Screening<br>Result | Screening Result Note   |
|----------------|--------------------|---------------------|---|
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Mucopolysaccharidosis type I (Hurler syndrome). IDUA activity Low. GAGs Elevated. Recommend confirmatory urine glycosaminoglycans (GAGs) quantitative analysis and serum alpha-L-iduronidase enzyme assay in leukocytes and consultation with a pediatric metabolic specialist within 5 days. Follow recommendations received from Clinical Care Coordination. DNA report to follow.         |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Mucopolysaccharidosis type I (Hurler syndrome). IDUA activity Low. GAGs Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Mucopolysaccharidosis type II (Hunter syndrome). I2S activity Low. GAGs Elevated. Recommend confirmatory urine glycosaminoglycans (GAGs) quantitative analysis and serum iduronate 2-sulfatase (I2S) enzyme assay in leukocytes and consultation with a pediatric metabolic specialist within 5 days. Follow recommendations received from Clinical Care Coordination. DNA report to follow. |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Mucopolysaccharidosis type II (Hunter syndrome). I2S activity Low. GAGs Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Pompe disease. GAA activity Low. Recommend immediate consultation with a pediatric metabolic specialist, immediate cardiac evaluation including chest x-ray, electrocardiogram and echocardiogram within 24 hours. Follow recommendations received from Clinical Care Coordination. DNA report to follow.  |
| Abnormal       | Lysosomal Diseases | Abnormal            | Possible Pompe disease. GAA activity Slightly Low. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 72 hours.   |
| Abnormal       | Lysosomal Diseases | Abnormal            | free text   |
| Abnormal       | Lysosomal Diseases | Revised Result      | free text   |
| Normal         | Lysosomal Diseases | Revised Result      | free text   |
| Unsatisfactory | Lysosomal Diseases | Revised Result      | free text   |

**Table 13: Lysosomal Diseases** 

#### Table 14: Unsatisfactory for All Tests

| Overall Result | Disorder | Screening<br>Result | Screening Result Note  |
|----------------|----------|---------------------|--|
| Unsatisfactory | ALL      | Unsatisfactory      | Blood did not completely fill specimen circles. Resubmit within 7 days.  |
| Unsatisfactory | ALL      | Unsatisfactory      | Blood did not soak through paper due to incomplete saturation. Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | Filter paper is scratched from the possible use of capillary tubes. Resubmit within 7 days.  |
| Unsatisfactory | ALL      | Unsatisfactory      | Specimen appears contaminated or discolored. Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | Blood was caked, clotted, or layered onto the filter paper. Resubmit within 7 days.  |
| Unsatisfactory | ALL      | Unsatisfactory      | Patient information incomplete or invalid (e.g. date of collection missing). Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | Incomplete, invalid, or no patient identification on specimen. The requirement for two patient-specific identifiers on the specimen was not met. Resubmit within 7 days. |
| Unsatisfactory | ALL      | Unsatisfactory      | Serial number on demographic form does not match number on specimen filter paper. Resubmit within 7 days.  |
| Unsatisfactory | ALL      | Unsatisfactory      | Specimen too old upon receipt. Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | Unable to analyze specimen due to laboratory accident. Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | No blood samples received with request form. Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | Specimen submitted on improper collection form. Resubmit within 7 days.  |
| Unsatisfactory | ALL      | Unsatisfactory      | Specimen submitted on expired collection form. Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | Serum separation due to improper drying or specimen collection. Resubmit within 7 days.  |
| Unsatisfactory | ALL      | Unsatisfactory      | Specimen damaged during transport to laboratory. Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | Information on demographic form does not match electronically submitted information. Resubmit within 7 days.   |
| Unsatisfactory | ALL      | Unsatisfactory      | Specimen received in hermetically sealed container. Resubmit within 7 days.  |

# Table 15: Partially Unsatisfactory

| Overall Result | Disorder        | Screening<br>Result | Screening Result Note  |
|----------------|-----------------|---------------------|--|
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Blood did not completely fill specimen circles. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Blood did not soak through paper - Incomplete saturation. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes.  Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Specimen appears contaminated or discolored. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Blood was caked, clotted, or layered onto the filter paper. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Assay interference due to EDTA/Citrate anticoagulant contamination. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Assay interference. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Incomplete elution of blood from filter paper. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Patient information incomplete or invalid (e.g. date of collection missing). Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Incomplete, invalid, or no patient identification on specimen. The requirement for two patient-specific identifiers on the specimen was not met.  Resubmit within 7 days.                          |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Serial number on demographic form does not match number on specimen filter paper. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Specimen too old upon receipt. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Unable to analyze specimen due to laboratory accident. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: No blood samples received with request form. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Specimen submitted on improper collection form. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Specimen submitted on expired collection form. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Specimen results inconsistent. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Serum separation due to improper drying or specimen collection. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Specimen damaged during transport to laboratory. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Information on demographic form does not match electronically submitted information. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Specimen received in hermetically sealed container. Resubmit within 7 days.  |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Testing of this specimen indicates more than one source of blood is present on the filter paper card. Results are inconsistent and do not appear to be due to transfusion. Resubmit within 7 days. |
| Unsatisfactory | Cystic Fibrosis | Unsatisfactory      | Unsatisfactory: Specimen too old to test for immunoreactive trypsinogen (IRT). Resubmit within 7 days.   |
| Unsatisfactory | SCID            | Unsatisfactory      | Unsatisfactory: Unable to evaluate for detection of TREC (T-cell receptor excision circles) possibly due to low DNA quantity. Resubmit within 7 days.  |
| Unsatisfactory | SMA             | Unsatisfactory      | Unsatisfactory: Unable to evaluate for detection of SMN1 gene. Resubmit within 7 days.   |
| Unsatisfactory | ALL             | Unsatisfactory      | Unsatisfactory: Insufficient specimen to complete testing. Repeat the newborn screen within 7 days.  |

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# Table 15: Partially Unsatisfactory

Public Health Laboratory Division Newborn Screening Laboratory dshs.texas.gov/lab

| Overall Result | Disorder           | Screening<br>Result | Screening Result Note  |
|----------------|--------------------|---------------------|--|
| Unsatisfactory | Lysosomal Diseases | Unsatistactory      | Unsatisfactory: Unable to evaluate for Lysosomal Diseases. All enzymatic activity low. Resubmit within 7 days. |

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