



Minnesota Department of Health Newborn Screening P.O. Box 64899 St. Paul, MN 55164-0899

DEPARTMENT OF HEALTH

Pulse Oximetry Screening Protocol for Critical Congenital Heart Disease (CCHD)

CCHD Newborn Prescreen Checklist

- At least 24 hours of age.
- Breathing room air.
- Pediatric probe on right hand and either foot.

*Note: If being discharged before 24 hours of age, do the screening as close to discharge as possible.

Outline of Pulse Oximetry Screening Protocol for CCHD Flowchart

An infant fails pulse oximetry screening if any of the following is true:

- The oxygen saturation is less than or equal to 89% in hand or foot
- The oxygen saturation is less than 95% in hand and foot and this is the infant's 3rd screen
- The oxygen saturation is greater than or equal to 95% in hand and foot but the difference in percentage points between hand and foot is greater than 3 percentage points, and this is the infant's 3rd screen

An infant passes pulse oximetry screening if the following is true:

 The oxygen saturation is greater than or equal to 95% in the hand and foot and the percentage point difference between the hand and foot is less than or equal to 3 percentage points.

A pulse oximetry rescreen is required if either of the follow is true:

- The oxygen saturation is 90-94% and this is not the infant's 3rd screen
- The oxygen saturation is greater than or equal to 95% in hand and foot, but the difference in percentage points between hand and foot is greater than 3 percentage points, and this is not the infant's 3rd screen

If an infant fails pulse oximetry screening:

• Notify the medical provider of the failed screen and the need for further evaluation.

PULSE OXIMETRY SCREENING PROTOCOL FOR CRITICAL CONGENITAL HEART DISEASE (CCHD)

- Consult with a pediatric cardiologist.
- Evaluate the infant for other cause of the low oxygen saturation (e.g., infection, pulmonary hypertension, pneumonia).

If an infant passes pulse oximetry screening:

- Notify the medical provider of the passed screen. Infant could still have cardiac disease.
- If clinical signs or prenatal diagnosis of CCHD are present, proceed with a cardiac evaluation.
- Signs and symptoms of CCHD can include rapid breathing, cyanosis, fatigue, poor feeding, and poor weight gain.

Remember:

Report results to the Newborn Screening Program.

All results should be reported electronically using MNScreen or through our secure fax.

Minnesota Newborn Screening 601 Robert St. N., St. Paul, MN 55155 Phone: (800) 664-7772* or (651) 201-5466* Fax: (651) 215-6285 *translators available www.health.state.mn.us 05/17/2023

To obtain this information in a different format, call: 651-201-5466.