Protocol for Critical Congenital Heart Disease (CCHD) Screening
Tennessee Department of Health

Screen all infants 24-36 hours of age or shortly before discharge if <24 hours old*

- **FAIL**
  - **DO NOT REPEAT SCREEN**

  - **FAIL**
    - **<90%**
      - Screen ONE FOOT (R or L)
    - **90-96%**
      - Add Screen of RIGHT HAND (RH)
    - **90-94% in RH or Foot OR >3% difference between RH and Foot**
      - Rescreen in 1 hour**
    - **90-94% in RH or Foot OR >3% difference between RH and Foot**
      - For example: a 96% in the foot and 100% in the hand after one repeat would fail
    - **FAIL**
      - Sp02 <90% in either the hand or foot at anytime during screening should have immediate clinical assessment by primary care providers.
      - Do Not Rescreen in one hour.

- **PASS**
  - **97-100%**

- **FAIL**
  - **<90% in RH or Foot**
  - **<90% in RH or Foot**

- **FAIL**
  - Sp02 <90% in either the hand or foot at anytime during screening should have immediate clinical assessment by primary care providers.
  - Do Not Rescreen in one hour.

*Infants in special care nurseries (including intermediate care and neonatal intensive care, etc) should be screened at 24-36 hours of age or when medically appropriate after 24 hours of age. In all cases, screening should occur prior to discharge home.

**If screen with RH and Foot shows 90-94% or there is a >3% difference between RH and Foot and the infant is <24 hours of age, re-screen from the start of the algorithm after the infant is 24-36 hours of age. If infant > 24 hours of age, re-screen in 1 hour.


Optimal results are obtained by pulse oximeter that has been approved by FDA for use in newborns.
- This screening algorithm should not take the place of clinical judgment or customary clinical practice.
- Infants in special care nurseries (including intermediate care and neonatal intensive care, etc) should be screened at 24-36 hours of age or when medically appropriate after 24 hours of age. In all cases, screening should occur prior to discharge from the hospital.
- If screen with RH and Foot shows 90-94% or there is a >3% difference between RH and Foot and the infant is <24 hours of age, re-screen from the start of the algorithm after the infant is 24-36 hours of age. If infant > 24 hours of age, re-screen in 1 hour.

Pass does not exclude the existence of a cardiac disorder.
- If cardiac evaluation is otherwise indicated (i.e.: clinical signs, prenatal diagnosis of CCHD, dysmorphic features, etc) proceed with cardiac evaluation even if infant receives a pass on the pulse oximetry screen.
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Chart for identifying infants with > 3% difference between the right hand and foot:

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</table>

Right hand screening not needed if foot saturation is 97-100%