CRITICAL CONGENITAL HEART DISEASE (CCHD) SCREENING: PROVIDER EDUCATION

Why screen for CCHD?

Congenital Heart Disease (CHD) is the most common birth defect, occurring in about **8 out of every 1,000 babies**. Critical CHD, a more severe form, occurs in 3-4 of every 1,000 babies, requiring intervention within the first year of life. Early detection is crucial to prevent serious complications.

Why is pulse ox used to screen for critical CHD?

Due to the complex changes occurring in the circulatory system after birth, physical examination may fail to detect Critical CHD in up to **50% of newborns**. Pulse oximetry enhances the effectiveness of physical examinations conducted within the first 24 hours after birth. Combined with a prenatal ultrasound and physical exam, it forms a comprehensive screening approach and is advised by the U.S. Recommended Uniform Screening Panel (RUSP), the American Academy of Pediatrics, the American Heart Association, the March of Dimes, and the American College of Cardiology.

How has pulse oximetry screening changed since originally recommended in the U.S.?

Since it was recommended in the U.S. in 2011, the algorithm has been simplified as follows:

- Requiring only one re-screen if a newborn falls into the retest category (allowing for earlier evaluation and treatment).
- Adjusting criteria for passing results
  - An infant must have 95% or greater in the right hand and foot.
  - AND a 3% or less difference between the hand and foot.

These changes to the algorithm allow for prompt assessment for infants with CCHD.

While the number of false positives may increase slightly, screening may detect noncardiac conditions such as sepsis and pneumonia that benefit from early identification and treatment.

Limitations of Pulse Oximetry Screening

Pulse oximetry is a useful screening tool, but it cannot entirely exclude the possibility of CHD. Assessing signs and symptoms of Critical CHD remains important. Do not rely solely on pulse oximetry screening to determine if an infant has Critical CHD.

For additional information, visit:

The Congenital Heart Patient Care at **www.AAP.org/CongenitalHeart**

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