Critical Congenital Heart Disease (CCHD) Newborn Screening Policy

I. POLICY

A. Statement: All infants in the well baby Nursery will have a CCHD screen at 24-48 hours of age.

B. Purpose: To identify cases of critical congenital heart defects that may go undetected during routine newborn examination.

The CCHD screening core conditions are:

1. Coarctation of the aorta
2. Double-outlet right ventricle
3. Ebstein's anomaly
4. Hypoplastic left heart syndrome
5. Interrupted aortic arch
6. Pulmonary atresia
7. Single ventricle (not otherwise specified)
8. Tetralogy anomalous pulmonary venous return
9. D-transposition of the great arteries
10. Tricuspid atresia
11. Truncus arteriosus
12. Other critical cyanotic lesions not otherwise specified.

Secondary conditions (non-CCHD) include:

13. Hemoglobinopathy
14. Hypothermia
15. Infection, including sepsis
16. Lung disease (congenital or acquired)
17. Noncritical congenital heart defect
18. Persistent pulmonary hypertension
19. Other hypoxemic condition not otherwise specified

II. PROCEDURE

A. Equipment/Supplies

1. Pulse oximeters
2. Pulse oximeter probes
3. Log book/electronic medical record

B. Screening of Infant

1. The baby should be awake and alert when screening.
2. Place probe on right upper extremity (pre-ductal), record saturation in room air.
3. Place probe on a lower extremity (post-ductal), record saturation in room air.
4. Refer to attached CCHD screening algorithm for interpretation and management of screening result. This result is documented in the patient's medical record. Additional documentation, i.e., log book, is optional.

III. DOCUMENTATION

A. Patient medical record

B. CCHD screening brochure provided and explained to parents.

IV. REFERENCES:

A. TXPOP toolkit: A Joint Educational Initiative of The University of Texas Health Science Center at San Antonio/Department of Pediatrics, Baylor College of Medicine/Department of Pediatrics and Texas Department of State Health Services

B. Oster ME, Aucott SW, Glidewell J, et al. Lessons Learned From Newborn Screening for Critical Congenital Heart Defects. Pediatrics. 2016;137(5):e20154573. doi:10.1542/peds.2015-4573

C. Matthew E. Oster, Nelangi M. Pinto, Arun K. Pramanik, Allison Markowsky, Bryanna N. Schwartz, Alex R. Kemper, Lisa A. Hom, Gerard R. Martin, and the SECTION ON CARDIOLOGY AND CARDIAC SURGERY, SECTION ON HOSPITAL MEDICINE, COMMITTEE ON FETUS AND NEWBORN; Newborn Screening for Critical Congenital

Heart Disease: A New Algorithm and Other Updated Recommendations: Clinical Report. Pediatrics January 2025; 155 (1): e2024069667. 10.1542/peds.2024-069667