

Peds H – Heart Failure and Congenital Heart Disease  
2/4/18

Cyanosis, difficulty feeding, failure to thrive, and shock can all be the presenting symptom of a cardiac abnormality. We will briefly overview cyanotic heart lesions, ductal dependent lesions, and CHF today, following along with our OHSIT (Grab the Broselow) peds emergency mnemonic.

The biggest treatment to remember today: **Prostaglandin**

- Used for children < 30 days old with ductal dependent heart lesions
- Maintains patency of the Ductus Arteriosus

3 categories of heart disease in children we need to know about:

1. The 5 cyanotic heart lesions
  - a. Truncus arteriosus – fused Aorta and PA; common pipe from both ventricles
  - b. Transposition of the great vessels – separate systemic and pulmonic circuits
  - c. Tricuspid atresia – blood can't pass from RA to RV / lungs for oxygenation
  - d. Tetralogy of fallot – 4 important findings\*
  - e. Total Anomalous Pulmonary Venous Return – pulmonary vein empties into RV
2. Ductal dependent heart lesions
  - a. Pts typically present within 30 days after birth
  - b. List of ductal dependent lesions available below
  - c. Tx: **Prostaglandin**
3. Congestive heart failure (CHF)
  - a. Pts typically present within a few months after birth
  - b. Pts present with subtle sx (unlike adults)
    - i. History of difficulty feeding
    - ii. Organomegaly
    - iii. Cardiomegaly on CXR
  - c. Tx: Furosemide, Inotropic pressors – Admit to hospital

Notes:

- \*4 important Tetralogy of fallow findings: 1) Overriding aorta, 2) VSD, 3) Right ventricular outflow tract obstruction, 4) RV hypertrophy
- Ductal dependent lesions (for some, classification of “ductal dependent” may vary with severity of the lesion): Hypoplastic left heart syndrome, Aortic stenosis, Coarctation of the aorta, Interrupted aortic arch, Tetralogy of Fallot w/ pulmonary atresia, Pulmonary atresia, Pulmonic stenosis, Tricuspid atresia, Ebstein anomaly, Transposition of the great arteries