



### Clinical Management Pearls

- Allow permissive hypercarbia and increase PEEP to increase pulmonary vascular resistance<sup>10</sup>
- Avoid anemia to increase pulmonary vascular resistance and ensure adequate O<sub>2</sub> delivery to the PDA
- Consider diuretics, but avoid furosemide as it will increase renal PGE<sub>2</sub> production and promote ductal patency<sup>11</sup>
- Fluid restriction is controversial, but often employed. Do not restrict beyond 135 ml/kg/day. The best way to limit vascular volume is by limiting sodium, if available<sup>12-14</sup>

### Clinical Assessment Tool

(must have symptoms in at least 2 categories below)

#### Respiratory

-Intubated with increasing respiratory support for >24h and/or MAP >9

-Mod-severe pulmonary hemorrhage

#### Cardiovascular

-Need for a cardiotropic agent (other than HCZN)

-Cardiomegaly with pulmonary edema on CXR

#### Gastrointestinal

-Feeding intolerance with abd distension and/or NEC

#### End Organ

-Unexplained worsening lactic acidosis

-Persistent oliguria <0.6 ml/kg/hr or acute elevation in Cr

### Echocardiogram Assessment Tool

(For significance must have large ductus AND fulfill at least 1 additional category)

#### Ductal Size

-Large PDA based on PDA:LPA diameter ratio  $\geq 1$  **OR** absolute ductal diameter  $\geq 1.5$ mm

#### **PLUS**

#### Left Heart Volume Loading

-Moderate to severe left heart loading (enlarged LA or LV)

#### Transductal Flow

-Unrestrictive and/or <2 m/sec

#### Descending Aorta Flow

-Reversed, absent, or markedly decreased flow

### Treatment Algorithm

- Ibuprofen
  - Repeat echocardiogram with staging
- If "significant", consider 2<sup>nd</sup> course of Ibuprofen
  - Repeat echocardiogram with staging
- If significant, consider PDA ligation