

PDA Mangement - Summary
East Bay Newborn Specialists Guideline
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Prevention of PDA

- Infants < 26 weeks will receive indomethacin prophylaxis after birth. Previously birth weight was used which resulted in the treatment of SGA infants > 28 weeks and excluded ELGAN who were > 1 kg.
- Trophic feeds can be started during prophylactic indomethacin therapy. Recent studies have shown that feeding does not increase the risk of NEC in infants with PDA.
- Fluids in the first few weeks of life will be restricted < 140 mL/kg/day. Studies have shown at excessive fluids in the first month of life is associated with PDA as well as BPD.
 - In order to do so, higher humidity (75-85%) will be used in extremely immature infants, i.e., < 26 weeks gestation to decrease insensible water loss.
 - Addition of Na, K to IV fluids will be delayed until the Na < 135 and the K < 4.0. Higher Na values will be tolerated (up to 150 mEq/L).

Management of infants with PDA

- Echocardiograms will be obtained:
 - If the patient has clinical signs or symptoms of a PDA
 - During or after a course of indomethacin or ibuprofen for PDA closure
- The cardiologists will standardize their reading of the echocardiogram by describing the features of the PDA in the narrative section of the echocardiogram report and providing one of the following statements in the conclusion section of the report if a PDA is present:
 - Persistent PDA , hemodynamically insignificant
 - Persistent PDA , clinical correlation requested
 - Persistent PDA , hemodynamically significant
- Asymptomatic infants will not be screened for a “silent ductus”.
- Only infants with a moderate or large PDA will be treated. Infants with a small PDA will be observed and have a repeat echocardiogram if their symptoms worsen.
- Trophic feedings or currently tolerated feedings can continue in patients with PDA whether on treatment or not.

Treatment of infants with PDA

- Indomethacin will be the drug of choice and the dose will be 0.2 mg/kg x 1 on day 1, 0.1 mg/kg/dose on day 2 and 0.1 mg/kg on day 3 of treatment.
- Ibuprofen will be used in cases where renal function is borderline. Ibuprofen is less likely to affect urine output or serum creatinine.
- Treatment will be limited to 2 courses of indomethacin (or ibuprofen)
- Surgery will be reserved for infants who meet all of the following criteria:
 - Failed 2 courses of indomethacin or have contraindication/s to indomethacin
 - Moderate to large PDA by echocardiogram
 - Require either pressor support for hypotension or ventilator support for respiratory failure
 - Neonates referred to CHRCO specifically for PDA ligation can be referred for surgery without meeting all of the above requirements.