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EMERGENCIES IN PEDIATRIC CARDIOLOGY
A GUIDE FOR THE PRACTISING PEDIATRICIAN

1. NEONATAL CARDIAC EMERGENCIES
2. DIAGNOSTIC EMERGENCIES
3. LIFE SAVING EMERGENCIES

NEONATAL CARDIAC EMERGENCIES

DUCT DEPENDENT CONDITION

SYSTEMIC CIRCULATION
- e.g. Coarctation
  Hypoplastic Left Heart Syndrome
  Severe Aortic Stenosis

PULMONARY CIRCULATION
- e.g. Pulmonary Atresia
  Pulmonary Stensosis
  Single Ventricles: with Pulmonary Atresia/Stenosis

MIXING LESIONS
- e.g. Transposition of Great Ateries
  Total Anomalous Pulmonary Venous Drainage

HOW TO ADMINISTER PROSTAGLANDIN

AVAILABLE AS 500 mcg/ml, 1 ml Ampoule
ALWAYS GIVEN AS AN INFUSION
STARTING DOSE 0.05 mcg/kg/min
PREPARATION for a 3 Kg Newborn
- Put 1 ml in 25 ml DEXTROSE OR SALINE
- Infuse at 0.5ml/hr = 0.05mcg/Kg/Min
- Wait for 15 min to 30 min for Increase in Saturation
- If no increase in saturation increase drip rate to 1ml/hr
- To allow 0.1 mcg/kg/min infusion rate

APNEA AND PROSTAGLANDIN

May Indicate Intubation

This makes Administration of Prostaglandin complicated

PREVENTION OF APNEA

AMINOPHYLLINE

6 mg/kg bolus BEFORE Prostaglandin

2 mg/kg every 8 hourly for next 72 hours

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INDICATIONS

AN ECHOCARDIOGRAM IS NOT INDICATED NECESSARILY

CLINICALLY INDICATED IF:

- **IN A NON-CYANOSED CRITICALLY ILL NEWBORN IS:**
  PRESENCE OF ABNORMAL PULES:START PROSTIN

- **WITH CYANOSIS IN A CRITICALLY ILL NEWBORN**
  IF MURMUR+CYANOSIS IS PRESENT START PROSTIN

The threshold for starting prostaglandin is directly proportional to severity of the child's illness

In the critically ill child: start Prostin without wasting time