

Neonatal Collapse Guideline

1. Initial Evaluation & Resuscitation

- Oxygen to achieve SaO₂ 96-98%, pre and post ductal sats (measure both continuously)
- SpO₂ 75-80% if known/suspected CHD
- Heart rate/rhythm/murmur
- IV/IO access
- 5-10mls/kg fluid bolus – repeat if hypovolemic and no signs of heart failure
- Blood and urine culture
- IV cefotaxime and amoxicillin (meningitis doses), Consider Aciclovir
- Insert NGT and decompress the stomach

Consider duct dependant heart lesion and early Prostin treatment

2. Secondary Assessment

- Femoral pulses/hepatomegaly
- Rash
- Bruising
- Regular GCS
- Temp – aim for normothermia

3. Immediate Investigations

- FBC, U&E, LFT, Coag, G&S, blood gas, blood glucose, Lactate, Ca, Mg
- Ammonia (seizures/encephalopathy), Hypoglycemia screen if low BM.
- CXR, ECG, ECHO (if available), consider CT Head
- Urine – MC&S and toxicology screen
- LP (unlikely during acute setting)-if no contraindications. lactate, PCR, MC&S, protein and glucose

4. Fluid refractory shock

- Call NECTAR (if not already done)
- Start peripheral adrenaline as per drug guideline
- Intubate and Ventilate (cardio stable induction with ketamine and rocuronium (as per NECTAR drug guidelines)
- Give further boluses if responsive (HR improves, no hepatomegaly)

5. Resistant Shock

- Increase adrenaline to achieve blood pressure
- Noradrenaline addition if inadequate response to adrenaline or warm shock (as per NECTAR drug guideline)
- Vasopressin if poor response to above (as per NECTAR drug guideline)
- Consider hydrocortisone (1mg/kg. Neonates 2.5mg/kg)
- Keep ionised calcium >1.2mmol/L (Calcium gluconate 10% 0.5ml/kg)
- Consider ECMO referral if not improving

Hypoglycaemia Treatment

- If <3mmol/L - give 3mls/kg 10% glucose IV and start 10% glucose 0.9% NaCl IVT – Recheck in 15-30 mins.
- Monitor Glucose aiming for >4mmol/L

PROSTIN

- [Can use DINOPROSTONE \(1ST line\) or ALPROSTADIL](#)
- Maintains patency of the duct to provide pulmonary or systemic blood flow restricted by defect

Preparation

- Add 500mcg of Prostin to 500mls 5% Dextrose
- Draw up 50mls of mixture into a syringe
- 0.6ml/kg/hr = 10nanograms/kg/min

How to start

- Can give peripherally, centrally or IO
- 10ng/kg/min if cyanosed but well, without acidosis and 20ng/kg/min if acidotic or unwell
- Higher doses may be used on advice of NECTAR/Cardiology once intubated

If starting Prostin, discuss early with Paediatric Cardiology via NECTAR

Intubation likely required if needing >20ng/kg/min Prostin – risk of apnoea

Management of hyperammonaemia

Ammonia <50micmol/L – normal. If >200micmol/L – repeat plasma ammonia level IMMEDIATELY and obtain result URGENTLY.

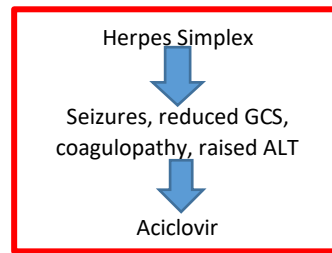
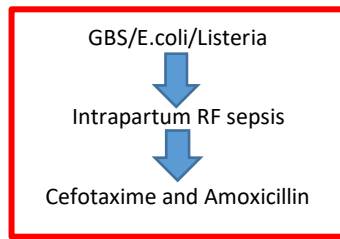
DO NOT DELAY MANAGEMENT – contact NECTAR for advice, metabolic consultation and transfer.

- [Follow BIMDG undiagnosed hyperammonemia guidance](#)
- STOP oral feeds and correct hypoglycaemia and start IVT with 10% Dextrose (deficit + maintenance)
- Start Sodium benzoate and sodium phenylbutyrate scavengers (see **BIMDG medicines for the treatment of hyperammonaemia**)
- Discuss with metabolic team before starting Arginine and Carnitine.

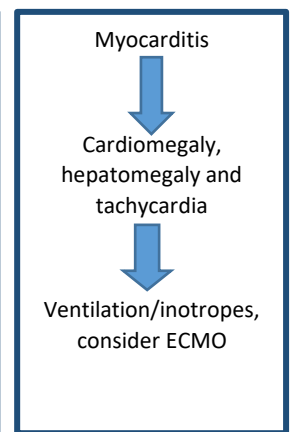
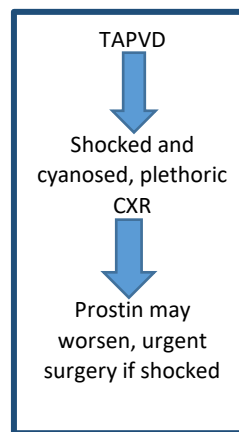
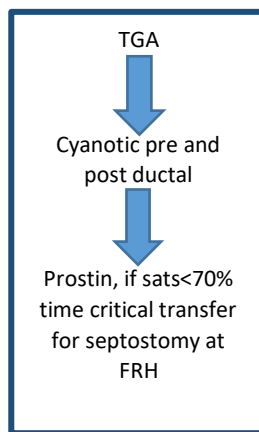
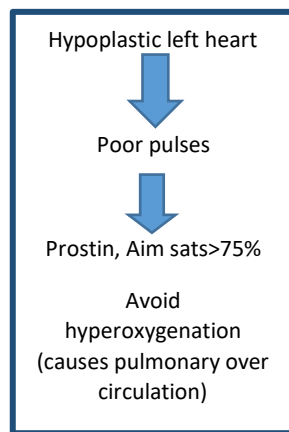
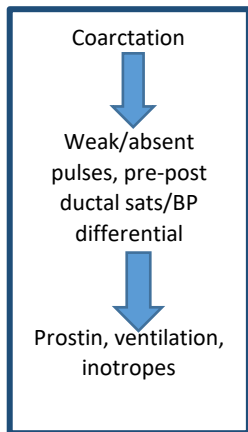
If struggling to source scavengers locally, contact NECTAR for support

Differential Diagnosis:

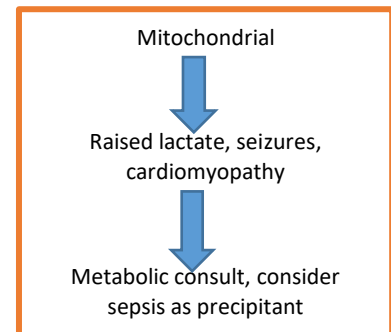
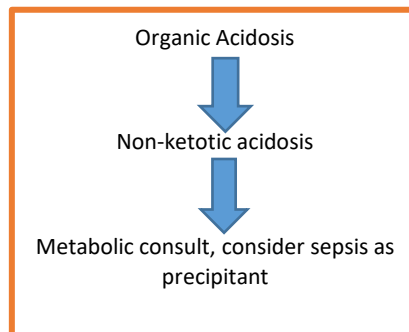
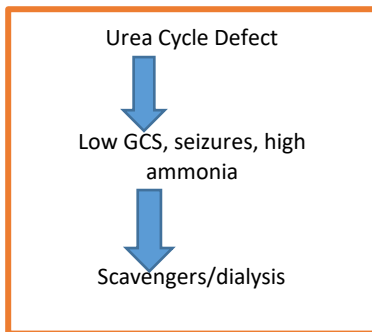
Sepsis



Cardiac



Metabolic



Other

