

NECTAR Guideline

Neonatal collapse

Summary:

This guideline outlines the initial assessment, investigations, differential diagnoses and management of the collapsed neonate.

Document Detail	
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Related Documents	
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<p>This clinical Pathway was produced by NECTAR hosted by Newcastle Upon Tyne Hospital Trust. To be used by nurses, doctors, ACCPs and ambulance staff to refer to in the emergency care of critically ill children. This guideline represents the views of NECTAR and was produced after careful consideration of available evidence in conjunction with clinical expertise and experience. The guideline does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient.</p>	

Change History		
Date	Change history Details	Approved By

Neonatal Collapse

1. Initial Evaluation & Resuscitation

- Oxygen to achieve SaO₂ 96-98%
- 75-80% if known/suspected CHD
- IV/IO access
- 5-10mls/kg fluid bolus – repeat if required
- Blood culture
- IV cefotaxime and amoxicillin (meningitis doses)

Consider duct dependent heart lesion and prostin treatment

2. Secondary Assessment

- Heart rate/rhythm/murmur
- Femoral pulses/hepatomegaly
- Rash
- Bruising
- GCS

3. Immediate Investigations

- FBC, U&E, LFT, Coag, G&S, gas, BG, Lactate
- Ammonia (seizures/encephalopathy)
- CXR, ECG, ECHO (if available)
- Urine
- LP (if no contraindications)

4. Fluid refractory shock

- Call NECTAR
- Start peripheral adrenaline as per drug guideline
- Intubate and Ventilate
- Give further boluses if responsive (HR improves, no hepatomegaly)
- Central IV access

5. Resistant Shock

- Consider ECMO referral if not improving
- Increase adrenaline to achieve blood pressure
- Noradrenaline addition if inadequate response to adrenaline or warm shock (as per drug charts)
- Vasopressin if poor response to above
- Consider hydrocortisone

Prostin

- Maintains patency of the duct to provide pulmonary or systemic blood flow restricted by defect
- Use alprostadil or Dinoprostone

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
- 20ng/kg/min if acidotic or unwell
- Higher doses may be used on advice of NECTAR/Cardiology once intubated

Side Effects

- Apnoea
- Hypotension
- Hypoglycaemia
- Flushing

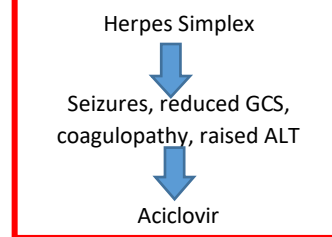
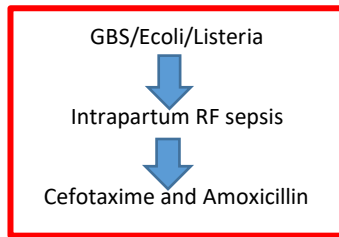
Discuss early with Paediatric Cardiology via NECTAR

Hypoglycaemia Treatment

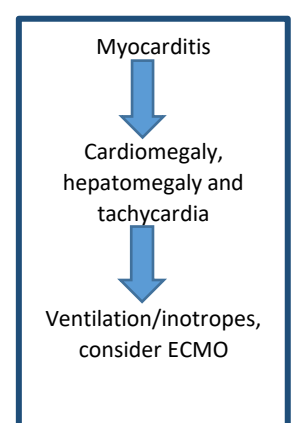
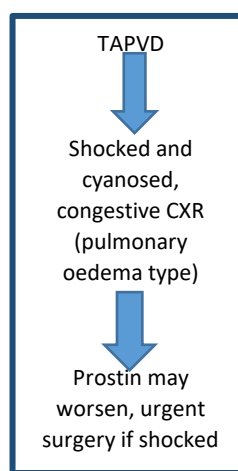
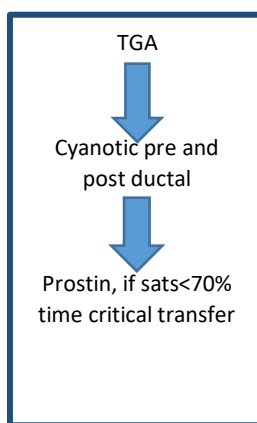
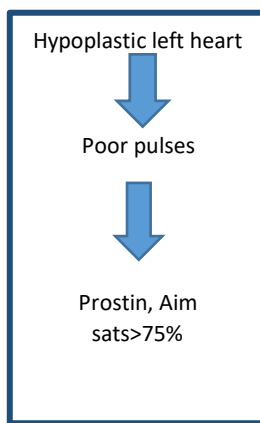
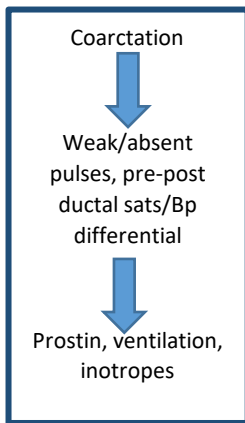
- If <3mmol/L 2mls/kg 10% glucose IV
- Start 10% glucose 0.9% NaCl IVT
- Monitor Glucose aiming for >4mmol/L

Differential Diagnosis:

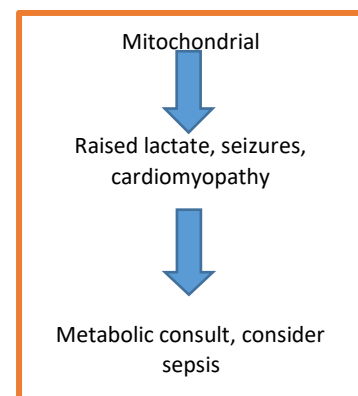
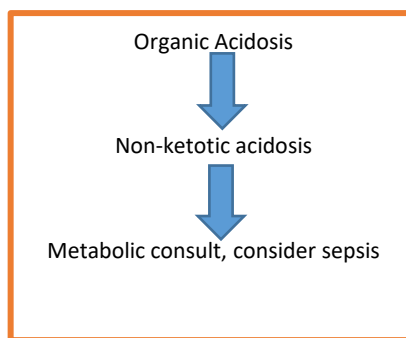
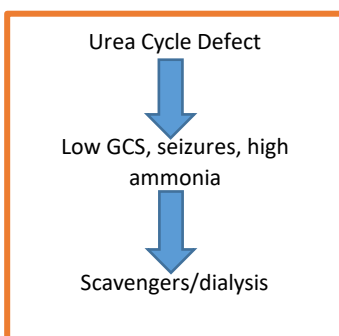
Sepsis



Cardiac (Consider ECMO referral for all known/suspected conditions with profound hypoxaemia+/-hypotension)



Metabolic



Other

