



## Clinical Guidelines

# Management of critically ill children at local DGH

### Document Control Information

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## Purpose

It is important that in the event that there is a delay in retrieval team availability due to workload that the DGH have a contingency plan to temporarily care for a child with guidance from the CATS consultant. There should be a designated area to take the child to in the DGH (e.g. Theatre Recovery, SCBU and/or AICU)

Adequate and ongoing dialogue between the CATS consultant and the consultants involved in the child's care is the key to delivering quality care and preventing errors from occurring.

## Assessment

Ensure plan agreed and instigated in conjunction with the CATS consultant

**Do not delay urgent treatment or interventions whilst awaiting the PCC transport team.**

If clinical condition warrants immediate transfer (e.g. emergency neurosurgery required) refer to CATS clinical guidelines and 'Transport considerations when transfer is undertaken by local DGH team'.

## Initial management priorities

**Preparation is the key to minimising clinical instability**

<p><b>AIRWAY</b>  <b>DO NOT use pre cut tubes</b>                  If cuffed tubes available consider using them (may not need to inflate cuff)                  Secure airway ensuring good position with no significant leak                  Add <b>PEEP</b> as soon as possible to ventilation circuit                  Add appropriate HME to circuit                  Gastric tube on free drainage (all ventilated children)</p>	<p>Discuss induction agent with CATS consultant                  Anticipate CVS instability with induction (If septic/cardiac)                  Prepare fluid bolus and possible dopamine infusion                  Chest X ray post intubation (Ideal Position at base of T2) with copy requested for transport team</p>
<p><b>BREATHING</b>                  Ensure adequate ventilation                  Is the chest wall moving?                  Is air entry equal?                  Have you good saturation readings?</p> <p>Transport ventilator if available otherwise utilise other ventilation resources from SCBU/AICU</p> <p>Always monitor end tidal carbon dioxide (ETCO<sub>2</sub>)                  Exclude ETT related problems urgently if ventilation difficult</p>	<p>Discuss ventilation strategies with CATS consultant</p> <p>Consider appropriate blood gas targets dependent on clinical condition</p> <p><b>Possible Ventilation problems:</b></p> <p>Inadequate sedation/paralysis</p> <p>Large leak around ETT in child requiring high Ventilator pressures (<b>need to upsize tube</b>)</p> <p><b>Unintended endobronchial intubation</b></p> <p>Consider physiotherapy and suction</p> <p>Tension pneumothorax (<b>must be drained</b>)</p>

<p><b>CIRCULATION</b></p> <p><b>Continuous cuff BP readings whilst awaiting arterial line placement</b></p> <p>2 good intravenous access points are a priority In a life threatening situation consider peripheral or IO inotrope infusion until central line access can be established.</p> <p>Arterial line attempted but can run on peripheral blood gases</p> <p>In neonatal shock consider cardiac anomaly (femoral pulses/ 4 limb BP)</p>	<p>Anticipate CVS instability at induction</p> <p>Discuss circulatory support measures with CATS consultant (most appropriate inotrope) Early aggressive fluid resuscitation + inotropes may be required</p> <p>Avoid propofol if CVS instability</p> <p><b>Unable to get BP reading from cuff</b> <b>Check:</b> Cuff size (2/3 upper arm width) Check femoral pulses and peripheral pulses Check ETCO<sub>2</sub> tracing (poor cardiac output)</p> <p><b>Give more fluid and titrate inotropes constantly reassessing until either arterial line placed or successful BP cuff readings recorded at frequent intervals.</b></p>
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<p><b>DISABILITY</b></p> <p>Commence adequate sedation &amp; paralysis (see CATS prescription sheet for drug infusion doses)</p> <p>Monitor Blood Glucose</p> <p>Consider urinary catheter (monitoring of output/avoid retention)</p> <p>Pupils</p> <p>Temperature control aim for normothermia unless cooling indicated</p> <p>Maintenance fluids commenced</p>	<p>Discuss specific concerns re sedation with CATS consultant</p> <p>Consider specific antibiotic cover</p> <p>Consider further tests such as CT scan, blood film</p> <p>Copy all notes for team</p> <p>Transfer x-rays/scans to receiving unit</p>
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### On going management/contingency plan

Appropriate staff identified to support care whilst awaiting next available CATS team.  
Care area identified to assist with resource management within the DGH.  
(Child moved to NICU/AICU/Theatre Recovery).  
Ongoing dialogue continues between DGH team and CATS consultant in relation to the clinical management.  
Plan agreed and updated according to clinical condition.

Detailed clinical guidelines are available on the CATS website: <http://www.cats.nhs.uk>

