
Clinical Guidance

Paediatric Critical Care: Transfer of an adult by paediatric critical care transport team

Summary

This guideline is intended to aid paediatric intensive care teams to transport adult patients during the COVID pandemic. The majority of patients will be COVID positive, requiring PPE and have an increased risk of hyperglycaemia and thrombosis.

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Superseded documents	
Related documents	Adult intravenous infusion guideline , Clinibee ICU guidelines , Critical care guideline for the use of intravenous insulin . Note Clinibee can be accessed externally while GTi info is only internal.
Keywords	Transport, transport team, retrieval, adult, CoV-2, COVID-19, Evelina, Paediatric, STRS, critical care, PICU
Relevant external law, regulation, standards	
<p>This clinical guideline has been produced by the South Thames Retrieval Service (STRS) at Evelina London for nurses, doctors and ambulance staff to refer to in the emergency care of critically ill children. This guideline represents the views of STRS and was produced after careful consideration of available evidence in conjunction with clinical expertise and experience. The guidance 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 details, since approval	Approved by

Adult Referral:

-may be minimal info available during pandemic but try and take relevant details as for a paediatric referral and confirm with STRS consultant.

Ideally should transfer patients less than 100kg

- Identify referring and accepting AICU and document contact numbers for both
- Check that the bed at the accepting AICU is available before setting off on RTV
- Take the contact number of the AICU physician who will be supporting the adult management
- Establish the covid status of the patient
- Request that close family are notified of the transfer before your arrival and update when transfer complete

Essential patient information:

- Allergy status of the patient - (ensure allergy band and name band on patient)
- Succinct history up to admission
- Full list of underlying co-morbidities
- Succinct update on progress in hospital and interventions undertaken
- Social and family history
- Next of kin contact number/s
- Primary clinical problem and reason for transfer
- Estimated absolute (ABW) & ideal (IBW) body weight should be documented from ICU chart
- Drug chart and comprehensive discharge summary

Clinical Management:

- Note presenting problem and reason for transfer
- Attention to current renal and liver function

A: ETT size and depth. Ensure well secured. Maintain ETT cuff pressure 2-5cm above mean airway pressure.

B: Aim for sats 92-94% (except in COPD 88-92%) and pCO₂ in 5-6kPa range using Vt 6mL/kg. Accept up to 8kPa as long as ph >7.2, PEEP 5-12cm depending on oxygen requirement. Ti ≥1.2

C: Aim MAP >60-70mmHg (younger at lower end, older adults with hypertension, higher end)

-Preload evaluated: Give 250mL bolus plasmalyte B and re-evaluate. Unusual to require >2000mL

-Vasoactive drugs: noradrenaline/ adrenaline

-If inotrope requirement >0.3microgram/kg/minute start hydrocortisone (100mg load then 50mg 6hrly)

-Correct all electrolytes to Mg >1.4, K 4-5, iCa >1.1

-Bradycardia: see flow sheet below

-Atrial fibrillation: if acute treat with amiodarone infusion (see right for dosing). Ideally requires ECHO.

D: Sedation - propofol 2% preferable plus fentanyl. Midazolam can be used as adjunct. Muscle relaxation with rocuronium. (See right for dosing).

Other:

-Aim blood glucose 6-10mmol/L. Use insulin infusion (see right) and follow intravenous insulin guideline if blood sugar >10mmol/L. (Insulin resistance common).

-NG tube in situ and stomach emptied. Stop feed for transfer. Close monitoring of blood glucose if on insulin infusion while feed stopped.

-Head of bed at 30° and inopads to prevent soiling

-Ulcer prophylaxis with IV pantoprazole 40mg OD

-Thromboembolism prophylaxis: Dalteparin

COVID +ve patients (for non-covid patients see alternative dosing):

- <46kg:** 5,000units OD
- 46-56kg:** 7,500units OD
- 57-100kg:** 10,000 OD
- 101-150kg:** 15,000units OD
- >150kg:** 18,000units OD

Other important information:

Lines and tubes

- Arterial line and invasive blood pressure monitoring for those on vasoactive drugs or with CVS instability
- CVL preferred sites: jugular, then femoral access
- Note site/ insertion date of all lines and tubes
- Underwater chest drains should be off suction or on Heimlich valve (no low pressure suction in ambulance)
- Ensure no traction of catheter balloon on bladder neck

Common intravenous drugs in adults:

Actrapid (Insulin): 50units made up to 50mL 0.9% sodium chloride (1unit per mL). Start at 2 units/h and follow intravenous insulin guideline.

Amiodarone (central): 300mg made up to 50mL 5% glucose only (6mg/mL). 300mg load over 30-60 mins then 900mg over 24h.

Amiodarone (peripheral): 300mg made up to 500mL 5% glucose (0.6mg/mL). 300mg load over 30-60 mins then 900mg over 24h.

Fentanyl: 2500microgram in 50mL neat (50micrograms/mL)
Dose range: 50-300 micrograms/h

Midazolam: 100mg made up to 50mL 0.9% sodium chloride (2mg/mL). Dose range: 0.5-20mg/h

Noradrenaline (central): 8mg made up to 50mL 0.9% sodium chloride. Dose range: 0.01-1microgram/kg/minute

Propofol: 2% (preferable rather than 1%) Dose range: 1-15mL/h = 20-300mg/h

Rocuronium: Bolus dose: 50-100mg, Infusion: 300mg/30mL neat (10mg/mL). Dose range: 0.3-0.6mg/kg/h.

Metaraminol: 10mg made up to 20mL 0.9% sodium chloride (0.5mg/mL). Titrate 1-2 mL to effect.

Phenylephrine: 10mg in 100mL 0.9% sodium chloride (100mcg/mL). Titrate 0.5-2 mL to effect.

Useful adult support contact numbers:

St Thomas' AICU consultant on call: **via switchboard**
- mobile numbers on [Clinibee](#)
St Thomas' ECMO fellow on call: **Bleep 0610**
EW6 nurse in charge: **Bleep 2057**

Adult Bradycardia Algorithm

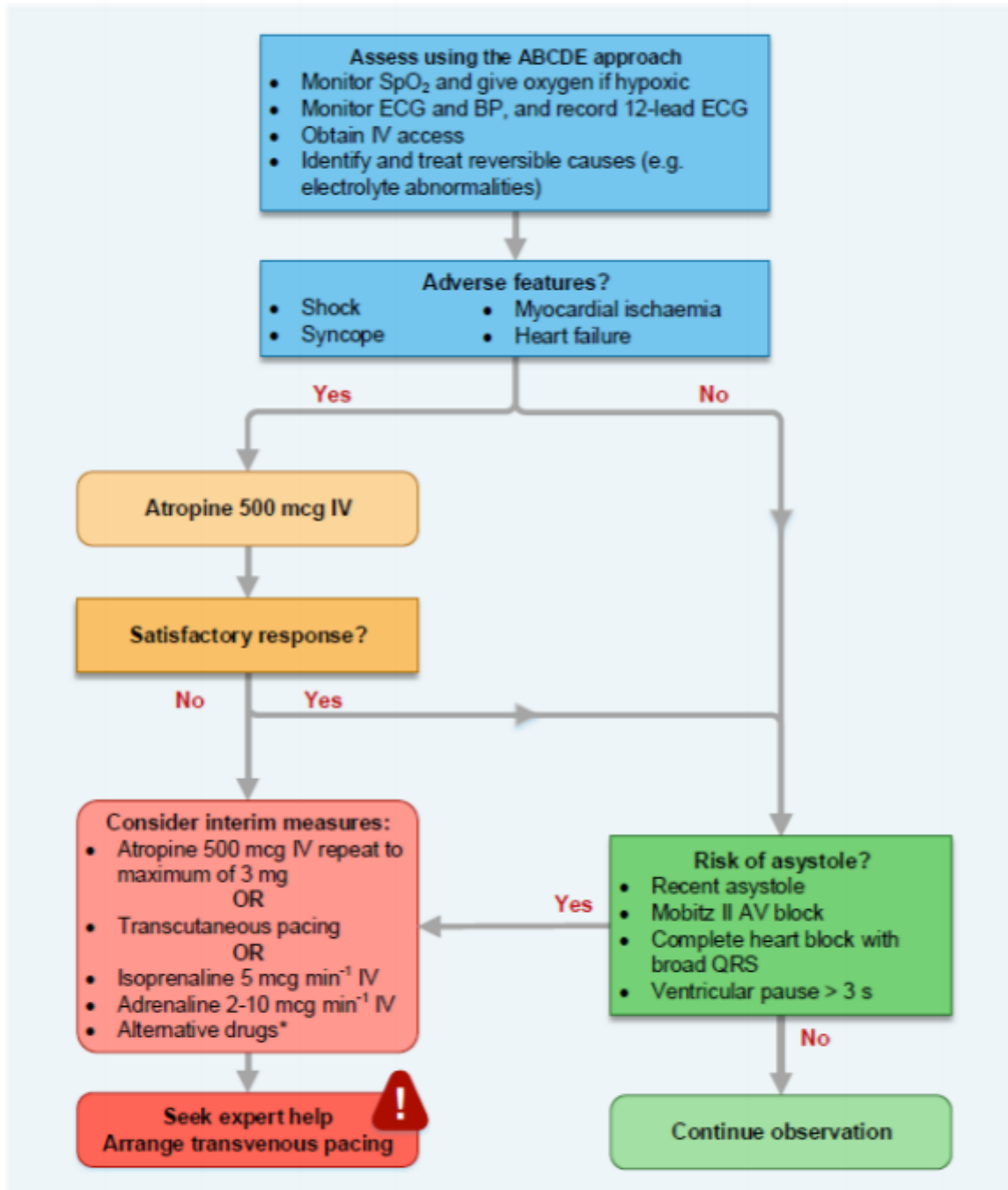
Although hypoxia should be corrected as for paediatric patients, the underlying cause for bradycardia in adults is more likely to be cardiac in nature. If signs of shock then this will need pharmacological management or pacing.



Resuscitation Council (UK)



Adult Bradycardia Algorithm



*** Alternatives include:**

- Aminophylline
- Dopamine
- Glucagon (if bradycardia is caused by beta-blocker or calcium channel blocker)
- Glycopyrrolate (may be used instead of atropine)