TRANSPORT AND RETRIEVAL [KIDS NTS guideline] ● 1/3

INTRODUCTION

The aim of a safe transfer policy is to ensure the highest standard, streamlined care. In the majority of cases transfer will be performed by a dedicated transfer team, but in certain cases the referring team may perform the transfer. In all cases the ACCEPT model (**Table 1**) can be used

INDICATIONS FOR TRANSFER

- Uplift for services not provided at referring unit (including diagnostic and drive-through transfers)
- Repatriation
- Resources/capacity

Table 1: ACCEPT model

A	**A**ssessment
C	**C**ontrol
C	**C**ommunication
E	**E**valuation
P	**P**reparation and packaging
T	**T**ransportation

ASSESSMENT

- Key questions are:
- what is the problem?
- what is being done?
- what effect is it having?
- what is needed now?

CONTROL

- Following initial assessment control the situation:
- who is the team leader?
- what tasks need to be done (clinical care/equipment and resources)?
- who will do them (allocated by team leader)?
- who will transfer baby (if relevant)?

CLINICAL CARE

- Preparation for transport begins with the referring team as soon as decision is made to transfer baby, even if being performed by another team

Airway/breathing

- If baby unstable or on CPAP with FiO_2 >0.4 and rising, intubate and ventilate
- Adjust ETT and lines depending on chest X-ray position; document all positions and adjustments and consider if repeat X-ray required; secure all lines and tubes
- If indicated, give surfactant [see **Surfactant replacement therapy – including less invasive surfactant administration (LISA) technique** guideline]
- If present, connect chest drains to a flutter valve
- Check appropriate type of ventilator support is available for transfer (e.g. high-flow/BiPAP/SiPAP/volume guarantee/oscillation may not be provided in transport) – if not, discuss other options
- If ventilated perform blood gas and adjust ventilation settings as necessary
- if non-invasive ventilation support, have recent (<6 hr) gas result available

Circulation

- If baby dependent on drug infusions (e.g. inotropes, prostaglandin), 2 reliable points of venous access must be available
- **Check whether receiving unit will accept central lines**
- if baby receiving bicarbonate, insulin or inotropes insert double lumen UVC
- check all access is patent and visible; ensure types and position of lines documented
- optimise blood pressure (see **Hypotension** guideline)
- ensure recent lactate result available

Drugs

- Antibiotics [see **Infection in first 72 hours of life** guideline and **Infection (late onset)** guideline]

- Decide whether infusions need to be concentrated
- Check vitamin K IM has been given
- Decide whether sedation/paralysis needed for transfer

Environment
- Monitor temperature throughout stabilisation – in the extreme preterm baby chemical gel mattress may be required
- Cooling babies [see **Hypoxic ischaemic encephalopathy (HIE) including preparation for active cooling** guideline]

Fluids
- Ensure all fluids and infusions are in 50 mL syringes and are labelled
- Change PN to maintenance fluids
- Volume as per **Intravenous fluid therapy** guideline
- Monitor intake and output

Infection
- Check if any colonisation issues and inform receiving unit

Parents
- Update with plan of care
- Discuss how parents will get to receiving unit – may be appropriate to travel with team
- Clarify method of feeding
- Document any safeguarding issues

COMMUNICATION

Referring centre
- Make decision to transfer with parents' agreement; in exceptional circumstances this may not be achievable
- For neonatal uplift transfers referrer to locate neonatal cot and then call 0300 200 1100 to refer for transfer
- for Birmingham Children's Hospital PICU beds call 0300 200 1100 for conference call about neonatal transfer and cot location
- for speciality or other PICU bed, call receiving clinician directly then call 0300 200 1100 to refer for transfer
- for all other transfers, including transfer into regional children's hospital, referrer to confirm cot availability then call 0300 200 1100 to refer for transfer
- All transfers, provide:
- demographics to administrator
- clinical details to transfer team
  - history and clinical details
  - urgency of transfer
  - interventions, investigations and results
  - medications
- Document advice given/received
- Prepare transfer information/discharge summary and arrange for images to be reviewed at receiving hospital
- Obtain sample of mother's blood (if required)
- Identify whether appropriate for parent to transfer with baby

Receiving centre
- Ensure consultant and nurse co-ordinator accept referral and agree with advice given

EVALUATION
- Referring clinician, transfer team and receiving team evaluate urgency of transfer and decide who will do it
- Neonatal transfers are classified as:
- time critical (e.g. gastroschisis, ventilated tracheoesophageal fistula, intestinal perforation, duct-dependent cardiac lesion not responding to prostaglandin infusion and other unstable conditions)
- to be performed within 1 hr
- to be performed within 24 hr

- to be performed after 24 hr
- In the event of transfer team being unable to respond within an appropriate time period and an alternative transfer team cannot mobilise, referring unit may decide to perform transfer themselves in the best interests of the baby

PREPARATION AND PACKAGING

- Three components:
- clinical care (see above)
- location and checking of equipment
- allocation of team
- Transport equipment must not be used for any other purpose
- Team undertaking transfer must be trained in use of all equipment and drugs and be competent to perform any necessary procedures en-route
- Ensure air and oxygen cylinders are full before departure
- ETT and lines must be secured before transferring baby to transport incubator
- Baby must be secured in transport incubator

TRANSPORT

Before leaving referring unit

- Change to transport incubator gases (check cylinders are full)
- Check blood gas after changing to transport ventilator. Make any necessary changes
- Check lines and tubes are not tangled; check infusions are running
- Record vital signs
- Allow parents to see baby
- Contact receiving hospital to confirm cot still available and handover clinical details (including infusions and ventilator settings)

Only leave referring unit when team leader is confident that baby is stable for transfer

On arrival at ambulance

- Ensure incubator and equipment are securely fastened/stowed in accordance with CEN standards
- Plug in gases and electrical connections
- Ensure temperature in ambulance is suitable
- Check all staff are aware of destination
- Discuss mode of progression to hospital (e.g. category of transfer)
- Ensure all staff are wearing seatbelts before vehicle moves

During road transit

- Record vital signs
- If baby requires clinical intervention, stop ambulance in a safe place before staff leave their seats
- Make receiving team aware of any major changes in clinical condition

On arrival at receiving hospital

- Follow the ACCEPT structure
- Handover to receiving team and then transfer baby to the unit's equipment
- transfer and receiving teams to agree order in which transfer happens
- After transfer, dispose of any partially used drugs and infusions before returning to ambulance