

Drive-Through PDA Ligation

Patent Ductus Arteriosus (PDA) ligation is performed at Birmingham Children's Hospital as a drive through procedure. The baby is taken from the referring neonatal unit directly to theatre and returned back to the neonatal unit post-operatively. He/she is not routinely admitted to the Paediatric Intensive Care unit (PICU).

Organising and performing a drive through is complex and this guideline has been developed to streamline the process to allow the drive through to proceed as smoothly as possible.

This guideline should be used in conjunction with the BCH information leaflet 'Patent Ductus Arteriosus' (www.bch.nhs.uk), the Drive-Through PDA proforma and 'NTS Drive Through policy for Transfer' (<http://kids.bch.nhs.uk/healthcare-professionals-2/clinical-guidelines/>).

1. Referral for PDA ligation

- Referring NIC/LNU consultant discusses the patient for PDA ligation with BCH cardiology consultant on call (contact via BCH switchboard). ECHO images should be shared with BCH via PACS/disc (as available locally)
- If PDA ligation is agreed NIC/LNU referrer to contact the BCH on-call cardiothoracic (CT) registrar 0121 333 9999, bleep 55331 and discuss case. Complete page 1 of the PDA proforma (<http://kids.bch.nhs.uk/healthcare-professionals-2/clinical-guidelines/>) and fax to 0121 333 9441.
- CT registrar contacts referring NIC/LNU confirming time & date of surgery. *This will usually be at 15:00 on the following Friday.*

2. Arranging Transport

- Referring NNU speaks to NTS consultant on 0300 200 1100 about planned PDA ligation
- NTS consultant will respond with one of the following options:
 - NTS can do full drive through transfer
 - NTS can support transfer with equipment & dedicated ambulance; **NIC/LNU will need to supply full ITU team (doctor/ANNP & nurse) for transfer; a NTS nurse will travel with the team but will only be responsible for equipment and ambulance**
 - NTS are unable to assist; **NIC/LNU will arrange full ITU team, equipment & ambulance (arranged as per local policy)**
- *NTS will record all requests for PDA ligation & outcomes, regardless of whether they participated in the transfer*

3. The Day Prior to Surgery

- Referring unit updates page 1 of the PDA proforma; referring unit contacts CT reg (bleep 55331) and NTS consultant (0300 200 1100) if there are any major changes
- CT reg contacts referring unit to confirm case will proceed
- NTS/ Referring unit team, equipment & ambulance must be confirmed to arrive at BCH for 13:30
- Parents must be informed that they will need to make their own way to BCH (theatre reception, 2nd floor, BCH) by 13:30 on following day; **parents must confirm with the NIC/LNU on the morning day of transfer that the drive through is happening**

4. The Day of Transfer – baby must arrive at BCH by 13:30

- Referring unit contacts NTS consultant (0300 200 1100) to confirm transfer and to rings 0300 200 1100 to discuss any major changes in baby's condition

- NIC/LNU updates Badger & complete PDA proforma document (paperwork to travel with baby)
- NTS confirms with NIC/LNU time of arrival (if taking part in the transfer)
- Baby prepared as per NTS Drive through policy for transfer

5. **At BCH – pre-op**

- Ambulance directed to BCH front entrance
 - *On arrival notify security you will need access to theatre lift*
 - *Lift taken to 2nd floor*
- Team orientated to BCH recovery (F Block theatre)*by nurse in charge of cardiac theatres or one of his/her team. This person bleeps CT reg (55331):
 - Nurse in charge arranges patient registration & note generation CT reg liaises with cardiology reg, anaesthetist & CT surgeon
- Cardiology registrar performs echo & records on page 2 of PDA proforma:
 - If PDA is for ligation
 - Parents consented by CT surgeon & seen by anaesthetist (documented on proforma)
 - Baby is taken into theatre (NTS/local team check anaesthetist is happy with ET fixation)
 - If PDA is NOT for ligation
 - Cardiology reg discusses with NIC/LNU consultant & Parents
 - NTS/local team depart with baby
 - *NTS/ local team record transfer and reason for return*

*NB – when F Block theatres are on ‘shut-down’ R Block theatres may be used instead.

6. **In Theatre**

- NTS/local team able to leave theatre recovery (*contact details left with theatre staff*)
- Parents leave theatre waiting area; NTS will take contact details of parents to alert them when baby has returned from theatre
- All equipment must remain plugged into mains (to keep incubator warm & preserve gases)
- Page 2 of proforma update by anaesthetist/CT surgeon

7. **Post-Op**

- NTS/local team assist in transfer of baby into recovery & receive handover from theatre team
- Baby reviewed by NTS/local team lead:
 - If stable:
 - NTS/local team review ventilation & adjust; NIC/LNU consultant to be contacted if clinical advice is needed
 - Updated copy of PDA proforma & operation notes photocopied to accompany baby
 - NTS & CT surgeon agree baby is fit for transfer
 - NTS/local team call referring unit re timing of leaving BCH once team is satisfied baby is fit for transfer
 - If baby unstable:
 - Transport team liaise with consultant anaesthetist and surgeon re on going management
 - If arrest – dial 2222 – ‘crash call’
 - State ‘arrest in main theatre recovery’
 - If urgent – dial 2222 – ‘fast bleep’
 - Ask for PICU registrar to come to main theatre recovery

Follow up

- If concerned, local team to contact cardiothoracic registrar (0121 333 9999 bleep 55331) for advice
- All babies must have CXR on return to referring unit to check ET position/pneumothorax
- NIC/LNU contacts heart investigation unit at BCH if baby dies prior to discharge from NIC/LNU (amy.bahat@nhs.net)

USEFUL NUMBERS FOR PDA DRIVE-THROUGHS

How to bleep at BCH:

9977 Bleep number Extension number of telephone

Useful numbers while at BCH:

On-call cardiothoracic registrar	Bleep 55331
On-call cardiology registrar	Bleep 55345 (or via switch for mobile phone)
On-call cardiology consultant	via switch board for mobile phone
Switchboard	0
To get outside line from telephone	1 followed by number