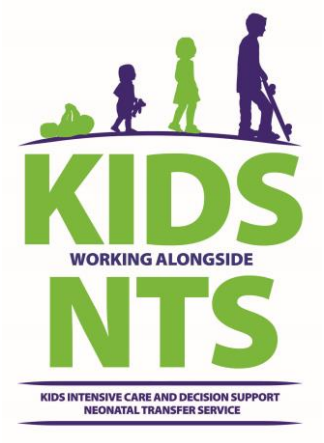


KIDS INTENSIVE CARE & DECISION SUPPORT (KIDS)
&
NEONATAL TRANSFER SERVICE (NTS)

KIDS-NTS

SERVICE DESCRIPTION

&

OPERATIONAL OVERVIEW

Alex Philpott
Sanjay Revanna

V1 November 2017 **Next Review November 2018**

Contents

Appendix

SERVICE DESCRIPTION

1.0 PURPOSE OF SERVICE

KIDS Intensive Care & Decision Support & Neonatal Transfer Service (KIDS-NTS) provides a single telephone number referral point 24 hours per day with dedicated KIDS (Paediatric Intensivist) and NTS (Neonatal Intensivist) Consultants accessible to teams caring for sick babies & children.

KIDS-NTS provides complex logistical support, advice on resuscitation and stabilisation, PIC & NIC bed sourcing, bed management, trained and supervised transport teams, bespoke ambulances, trained drivers and specialist transport equipment, feedback, education and outreach (including simulation), and governance.

There are 2 paediatric intensive care (PIC) facilities within the West Midlands region at Birmingham Children's Hospital (BCH) and University Hospital of North Staffordshire (UHNS).

There are 12 neonatal units in the West Midlands.

1.1.1 WEST MIDLANDS HOSPITALS COVERED BY KIDS-NTS

Alexandra Hospital, Redditch*
Birmingham Women's Hospital NHS Trust
Burton Hospitals NHS Trust*
City Hospital NHS Trust
County Hospital*
George Eliot Hospital NHS Trust*
Good Hope Hospital
Heartlands Hospital
Hereford County Hospital
County Hospital*
Princess Royal Hospital, Telford
Royal Orthopaedic Hospital*
Royal Shrewsbury Hospital*
Royal Worcester Hospital
Russells Hall Hospital
Sandwell Hospital*
Solihull Hospital*
University Hospital Birmingham NHS Trust*
University Hospital of Coventry and Warwickshire NHS Trust*
Walsall Manor Hospital
Warwick Hospital*
Wolverhampton Hospitals NHS Trust

*Hospitals covered by KIDS but not NTS

1.1.2 NEONATAL OPERATIONAL DELIVERY NETWORK (ODN) HOSPITALS COVERED BY NTS

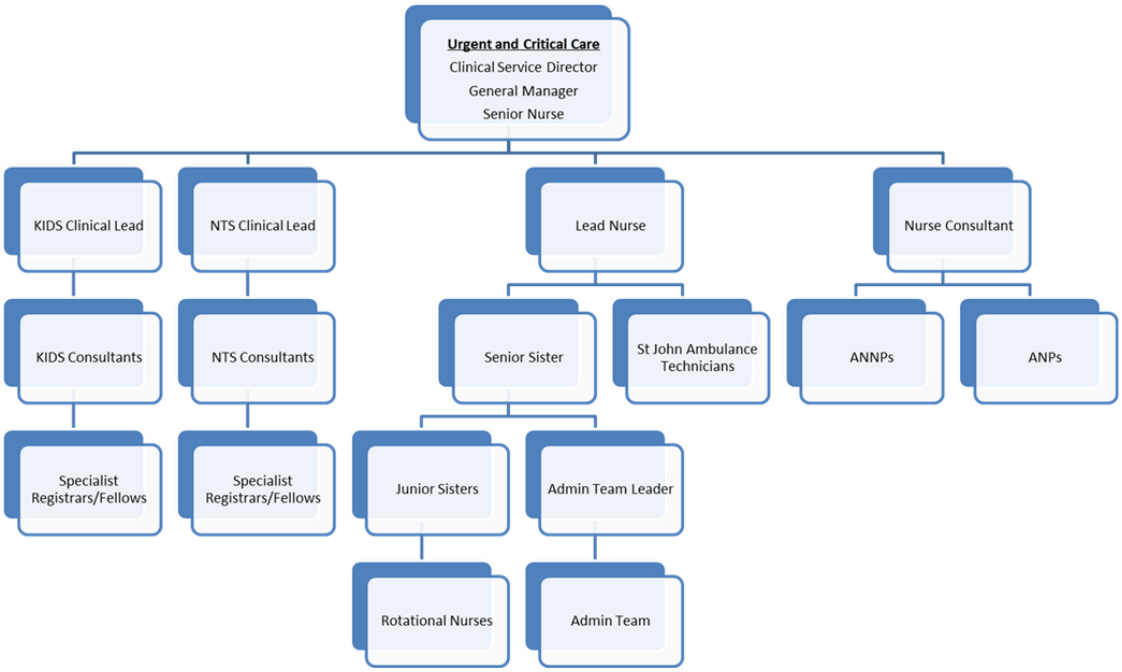
Staffordshire, Shropshire and Black Country Newborn Network (SSBCNN)	Southern West Midlands Newborn Networks (SWMNN)
New Cross Hospital, Wolverhampton (NICU) University Hospital of North Midlands (NICU) City Hospital (LNU) Telford Hospital (LNU) Manor Hospital, Walsall (LNU) Russells Hall Hospital, Dudley (LNU)	Heart of England Hospital (NICU) Birmingham Women's Hospital (NICU) Worcestershire Royal Hospital (LNU) Good Hope Hospital (SCBU) Hereford County Hospital (SCBU)

NICU – Neonatal Intensive Care Unit; LNU- Local Neonatal Unit; SCBU – Special Care Baby Unit

1.2 COMMISSIONING AND ORGANISATIONAL STRUCTURE

KIDS-NTS formally merged on 1st July 2016.The service is commissioned by NHS England to be provided by Birmingham Women and Children's Hospital NHS Foundation Trust. The service sits the Urgent and Critical Care Clinical Group.

The Directorate Management Team (DMT) is led by Dr Mary Montgomery (Clinical Service Director), Dominic St Louis (General Manager) and Phil Wilson (Senior Nurse).



Clinical Lead for KIDS is Dr Sanjay Revanna, Clinical Lead for NTS is Dr Alex Philpott, Lead Nurse for KIDS-NTS is Emma Bull, and NTS Nurse Consultant with responsibility for KIDS-NTS ANNPs/ANPs is Catherine Rutherford.

1.3 PERFORMANCE AND ACCOUNTABILITY

KIDS-NTS are accountable and report to:

- BWC Urgent & Critical Care Group Management Team
- WM Specialised Commissioning Team

In addition KIDS specifically reports to:

KIDS Regional Stakeholder Steering Group

And NTS specifically reports to:

West Midlands Transport User Group (wmTUG)

KIDS-NTS is hosted by BCH and report to service users via BCH governance system.

NTS reports to:

- Southern West Midlands New-born Network (SWMNN)
- Staffordshire, Shropshire & Black Country New-born Network (SSBCNN)

KIDS-NTS works to:

- WM Standards for Care of Critically and Injured Child
- PICS Standards

NTS works to:

- Service Specifications for Neonatal Critical Transport (2015)
- Toolkit for High Quality Neonatal Services (2009)

2.0 PHYSICAL INFRASTRUCTURE

The service is located on the ground and first floor of 1 Printing House Street, adjacent to the BCH city centre site. The building contains a modern refurbished

operations centre, equipment storage areas, offices, and staff facilities. An ambulance bay for 3 vehicles, equipped with lighting, charging points and close circuit television (CCTV) is provided nearby. The building has robust electrical power facilities with a dedicated generator and backup telephone lines. The building is managed by the BWCH Estates and Facilities Department.

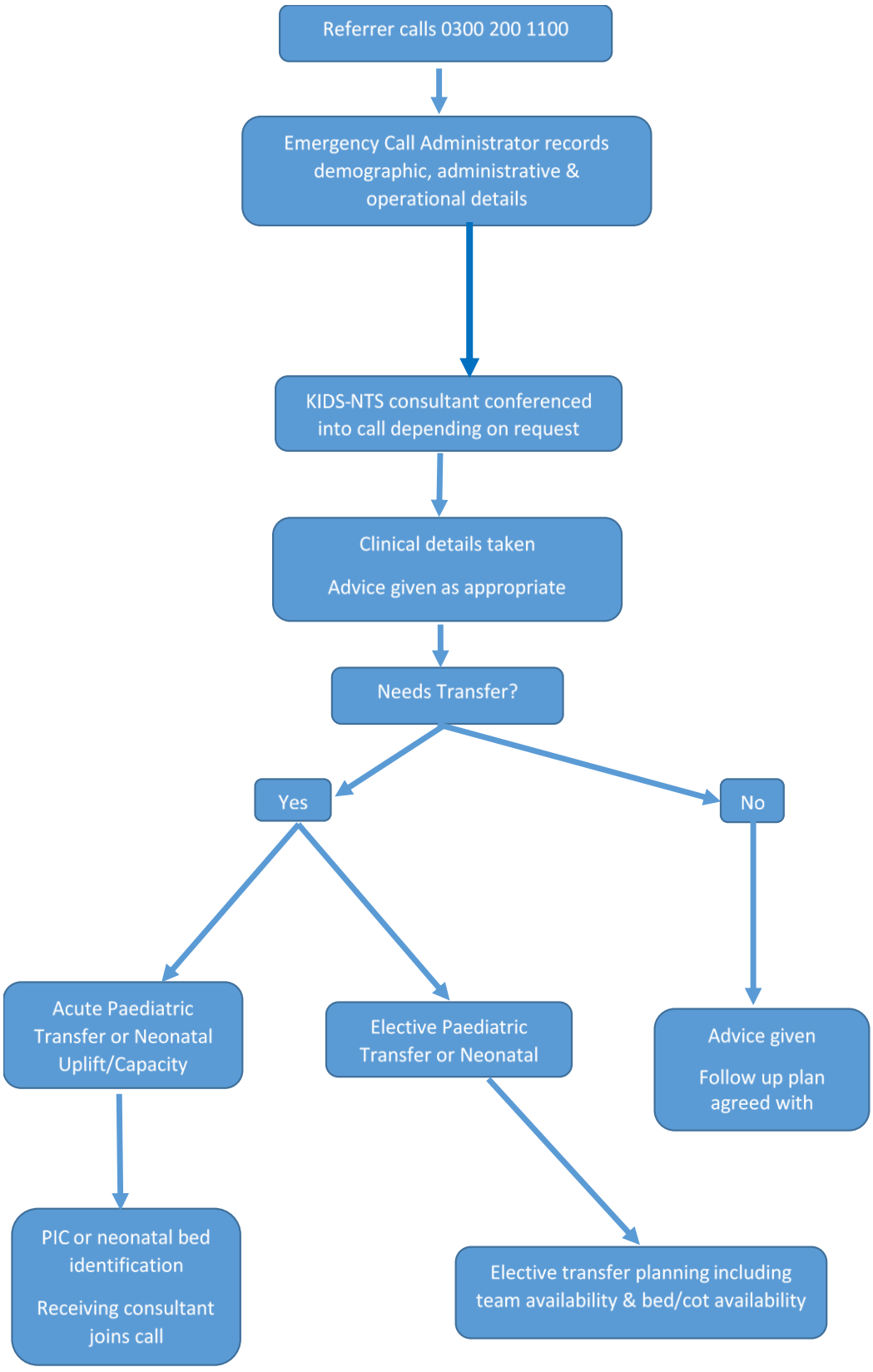
2.1 KIDS-NTS OPERATIONS CENTRE - INFRASTRUCTURE

- 8 workstations (4 fitted with '30-60 line' AC Win Switchboard consoles).
- 14 Analogue and Voice Over IP (VOIP) telephone lines, including 2 backup British Telecom lines independent of the BCH communication system.
- Computerised multi-track call recording system with immediate playback and downloading facilities
- Single-number 'hotline' - freephone number supplied by Cable & Wireless.
- Trained emergency call centre administrators to receive calls, register patient demographic details, connect to KIDS-NTS consultants and set up complex conference calls
- Regular regional PIC/NIC and maternity bed-state monitoring
- Large screen satellite tracking of KIDS-NTS ambulance locations provided by NAVMAN
- Electronic status board: KIDS-NTS operational status/bed states/referrals
- Governanced medical records and patient registration system for all referrals
- Established winter and surge planning
- Clear line management structure for all staff
- Medical/Lead Nurse/ Nurse Consultant/Team Leader line management
- Governanced/managed contract with SJA providing ambulances and ambulance technicians
- All practice governed by regularly reviewed Standard Operating Policies (SOP) in line with BWCH standard practice

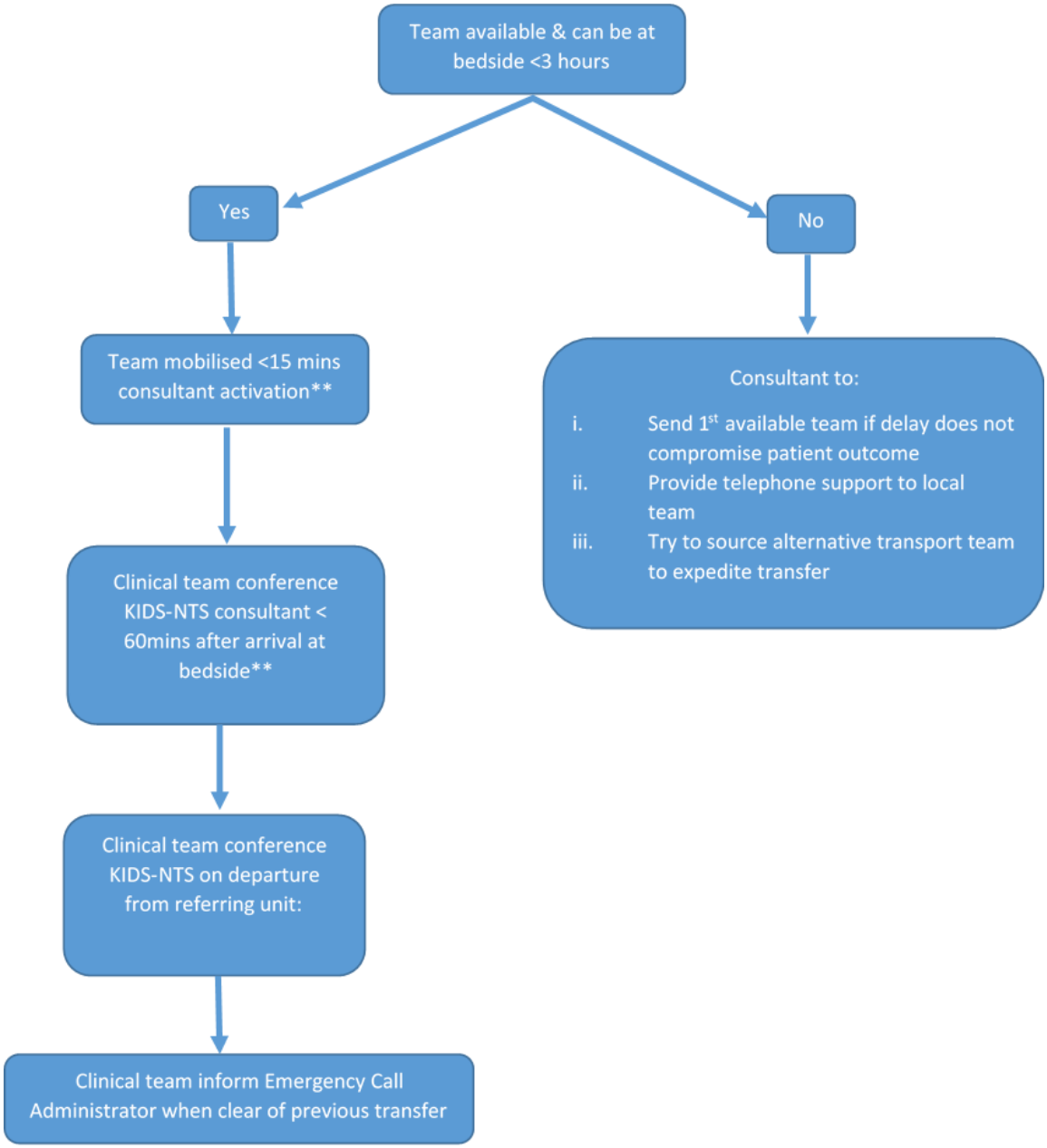
2.2 KIDS-NTS OPERATIONS CENTRE – KIDS-NTS REFERRAL LINE (0300 200 1100)

- Recorded greeting informing that calls are recorded for training, audit and patient record purposes.
- Acute Referral line answered by KIDS-NTS emergency call centre administrator within 5 rings.
- Patient demographic information, provisional diagnosis, NHS number and GP recorded for all patients on electronic patient record (EPR)
- Referring clinician's speciality, grade and contact details recorded for all patients on EPR
- Referrals connected to KIDS-NTS Consultant within 5 minutes**.
- Administrator conferences additional persons as instructed by KIDS-NTS Consultant
- All calls (including from transport team) relayed through the operations centre – ensures good governance, and robust communications process.
- Electronic call log completed by administrators in EPR
- Registration of patient for every patient; BCH notes generated if patient admitted to BCH
- Robust reporting on BCH risk reporting system of all issues regarding operations centre functionality or communication processes and reported to the administration team leader and the lead nurse.

2.3 REFERRAL CO-ORDINATION PATHWAY



Acute Paediatric Transfer or Neonatal Uplift/Capacity cont:



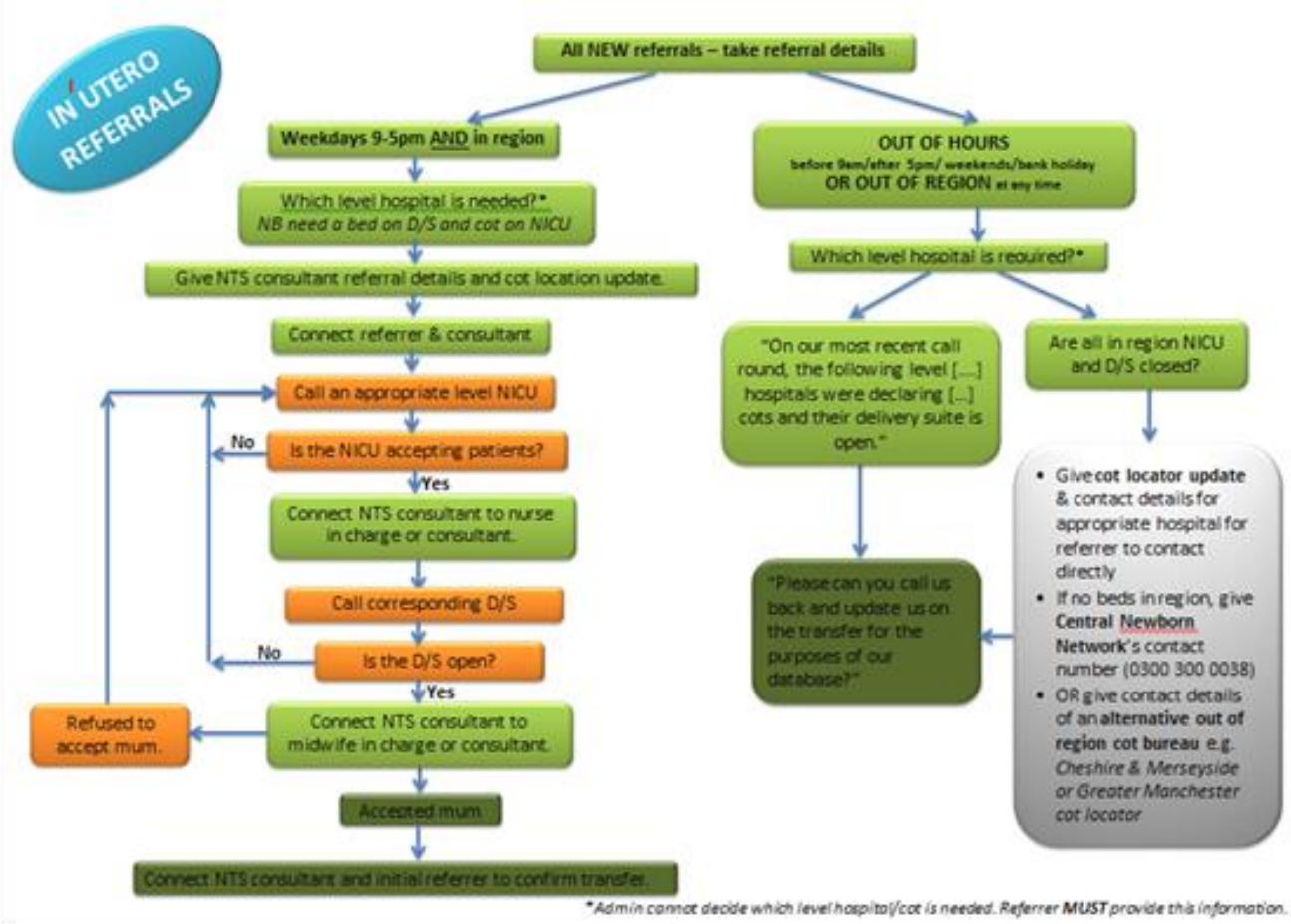
There are specific Escalation SOPs to support surges in demand/lack of capacity.

2.3.1 Time Critical Transfers

For some Time Critical transfers it may be appropriate for the referring team to perform a primary transfer. This will be agreed between the referring, receiving and KIDS-NTS Consultant.

2.3.2 Antenatal Referrals

This service is not commissioned and is only provided when the service has the capacity to support cot location.



3.0 TRANSFER JOURNEY

3.1 DEPARTURE FROM BASE/ FOLLOW ON

- KIDS-NTS Teams mobilised by the KIDS-NTS Consultants.
- Pre-departure checks will be completed by all team members
- Transfers triaged and assessed to ensure the appropriate equipment is mobilised and clinical team composition
- Agreement about conduct of the journey will be reached prior to transfer, although this may change in response to change in the patient clinical condition or road conditions (see SOP)
- All team members will obey highest achievable standard of ambulance safety and obey all SOPs relating to ambulance transfer

3.2 ARRIVAL AND STABILISATION AT REFERRING HOSPITAL

- Joint introductions of KIDS-NTS Team and referring hospital, identifying names and roles takes place
- Introduction to family, if present & a summary of what to expect next
- Observance of local/KIDS-NTS/BWC infection control practices
- Full handover taken from local team with simultaneous completion of KIDS-NTS 'handover' checklist.
- KIDS-NTS team assessment of patients' clinical condition, therapies in progress, radiological and other investigations.
- KIDS-NTS team telephone consultation with KIDS-NTS consultant to agree action plan, within 60 minutes of team arriving.
- Stabilisation performed in collaboration with referring team
- Clinical procedures performed in line with BWC Policies and Procedures, acting within the remit of the Clinical Governance Department
- Further KIDS-NTS team telephone consultation with KIDS-NTS consultant as required
- Parents updated throughout by KIDS-NTS team and referring hospital contact details given; minimum of 1 parent offered opportunity to travel in ambulance.
- Feedback questionnaire left for unit &/or parents

3.3 PRIOR TO DEPARTING REFERRING UNIT

- KIDS-NTS team telephone consultation with KIDS-NTS consultant to confirm authorisation to depart
- KIDS-NTS team to contact destination hospital to ensure cot/bed is still available & team are aware of most recent clinical status
- Confirm and challenge pre-departure checklist completed by KIDS-NTS team members
- Parent/s receive safety briefing re travelling in ambulance from KIDS-NTS team

3.4 DEPARTING REFERRING UNIT

3.4.1 EQUIPMENT

- Medical gases & equipment disconnected from unit supply with confirmation of re-establishment of supply
- Patient transferred into ambulance by KIDS-NTS team; trolley secured by ambulance technician.
- Medical gases & equipment reconnected to ambulance supply by KIDS-NTS team with confirmation of re-establishment of supply
- Equipment bag secured into designated storage with provided straps; other equipment secured within lockers

3.4.2. COMMUNICATION

- Ambulance technician confirms all staff/parents seated correctly wearing seatbelts, and that there is no loose equipment
- Ambulance technician confirms with KIDS-NTS team that departure can commence, destination and category of journey for travel
- Journey to PIC, NIC or other commences at normal road speed – unless exemptions/blue lights to be used in accordance with 'Blue light' policy.

3.4.3 MONITORING

- Patient vital signs and ventilator observations recorded every 15- 30 minutes during the journey unless otherwise indicated.

3.5 AT DESTINATION HOSPITAL

3.5.1 COMMUNICATION

- Introductions of KIDS-NTS Team and receiving hospital, identifying names and roles
- KIDS-NTS team patient handover to destination team with simultaneous completion of KIDS-NTS 'destination checklist' on transport documentation
- Record of drugs and infusions being handed over to destination team documented and signed on transport chart.

- Documentation, X-Rays or CDs handed over to destination team
    - Photocopy of transport document to be given to destination team.

3.5.2 TRANSFER OF PATIENT

- Transfer of patient to bed/cot managed by KIDS-NTS team, with assistance from destination team (Patient remains responsibility of KIDS-NTS Team till transfer and handover complete)

3.5.3 POST HANDOVER

- Equipment gathered and cleaned, and team return to ambulance
- KIDS-NTS team inform KIDS-NTS office when departing receiving hospital
- Team return to KIDS-NTS base at normal road speed or proceeds to next transfer.

4.0 TRANSPORT TEAM PERSONNEL COMPOSITION

All team members have up to date mandatory training and PDR as per BWC policy.

Team Leader KIDS-NTS Acute/Emergency Transport Team

- GMC registered doctor with KIDS-NTS core competencies in paediatric critical care transport and advanced resuscitation certification

or

- NMC registered nurse, qualified as an Advanced Nurse Practitioner in Paediatric Intensive Care or Neonatal Intensive Care with KIDS-NTS

And

And Transport Nurse

- NMC registered paediatric or neonatal nurse, qualified in intensive care nursing with KIDS-NTS core competencies in transport and resuscitation certification

And

- KIDS-NTS SJA Ambulance Technician with D class driving licence and IHCD level 2; KIDS-NTS specific training to interfacility intensive care transport standard; KIDS-NTS transport physiology training; KIDS-NTS extended role training

Other transport teams will be launched dependent on the clinical situation and competencies of staff, always under the guidance of the KIDS-NTS consultant

5.0 EQUIPMENT

- Equipment is checked as per the KIDS-NTS Equipment checking schedule.
- Missing or defective equipment reported and removed from service where appropriate. Critical incident form completed. Faulty equipment taken to Medical Engineering at earliest opportunity.

6.0 KIDS-NTS CONSUMABLES

- Robust supply chain of consumables managed by KIDS-NTS Team
- Winter and surge preparedness fully established

7.0 AMBULANCE SERVICE

- KIDS-NTS' ambulance service provided through contractual arrangement with St John Ambulance - four dedicated bespoke vehicles available; three vehicles crewed 24/7 with a single driver/technician & additional 4th vehicle daytime only (8-8).
- A second technician will be required for all drives >3.5 hours duration
- Fast response vehicle available 24/7
- 3 x KIDS-NTS Ambulances operate from on-site parking area
- Ambulance Technicians pool and rotas provided to KIDS-NTS management team – technicians on-site at operations centre, with minimum of one vehicle and one driver always available.
- Vehicles checked 12-hourly by ambulance technicians and KIDS-NTS team, in accordance with SOP, ensuring road worthiness and clinical facilities are maintained.
- Infection control and cleaning regimes managed by St John Ambulance Service
- Quarterly Ambulance contract review meetings of staffing, training, performance and governance.

7.1 AIR AMBULANCE – See 'Guidelines for Flight Transfers' SOP

8.0 KIDS-NTS DRUGS / MEDICINES

All transport drug packs are provided and managed by BWCH pharmacy department. Controlled drugs are governanced and managed as per the BWCH SOP for controlled drugs.

9.0 KIDS-NTS ACTIVITY MONITORING MANAGEMENT

- KIDS-NTS activity metrics submitted monthly to BWCH performance
- Monthly 'confirm and challenge' activity reviews undertaken by UCC Management Team

9.0.1 Referral Metrics

KIDS-NTS Metrics are based on nationally agreed guidelines (PICS & NTG) and locally agreed metrics.

These are:

- KIDS-NTS Consultant to be connected to referral call within 5 minutes of call being received
- Clinical team mobilised within 15 mins of consultant activating transfer
- Clinical team at bedside <3 hours from designation of need for PIC/NIC bed – this applies only to acute paediatric or uplift/capacity neonatal transfers
- Clinical team to conference call with KIDS-NTS consultant <1hour after arriving at bedside

9.1 CATEGORISATION OF TRANSFERS

All transfers categorised as per PICANET and NTG guidance:

9.1.1 KIDS Categorisation

http://www.picanet.org.uk/FAQs/PICANet_Admission_Dataset_Manual_v5.0.pdf

9.1.2 NTS Categorisation (BAPM/NTG)

a. BAPM category of care:

- Intensive care
- High Dependency Care
- Special Care

b. Primary Clinical Reason for Transfer:

- Medical
- Surgical
- Cardiac
- Neurological (including Therapeutic Hypothermia)

c. Primary Operational Reason for Transfer

- Uplift
- Resource/Capacity
- Repatriation
- Outpatients

d. Timescale Transfer Required:

- within 1 hour
- within 4 hours
- within 24 hours
- greater than 24 hours
- Time-critical transfer

9.2 SAFETY/GOVERNANCE ADDITIONAL PROCESS AND MEETING/REPORT STRUCTURE SAFETY

- Daily KIDS-NTS Morning Review Meeting with medical and nursing quorum reviews all clinical activity, cases pending and service operations.
- All cases are classified using the PICAnet (KIDS) or NTG (NTS) classification
- Daily review of all confirmed or suspected incidents in previous 24 hours.
- Human factors training and SIM training of KIDS-NTS staff
- All incidents reported through BWCH electronic risk reporting system, with low threshold for reporting and transparent investigation and reporting
- Monthly review of incidents by UCCG Management Team
- Monthly presentations to KIDS-NTS M&M for KIDS-NTS incidents,
- Feedback/reporting of incidents to referring and receiving units via BWCH Governance system

- Use of Regional Neonatal and Paediatric Critical Care Networks to facilitate feedback and learning both specific to units and regionally

9.3 CARE QUALITY MANAGEMENT

- KIDS-NTS accountable for reporting to the Urgent & Critical Care Group DSS for infection control, patient experience and child protection.
- Monthly 'confirm and challenge' quality reviews undertaken by UCCG Management Team. Exceptions or failures robustly interrogated
- Care quality report presented to regional stakeholders 'Steering Group meeting'/ wmTUG
- Annual report published

9.4 OUTREACH

9.4.1 KIDS-NTS WEBSITE

- KIDS-NTS Website accessible via world wide web (http://kids.bwc.nhs.uk)
- Referral and service operational information available
- Clinical guidelines for acute paediatric conditions & regional neonatal guidelines available to download
- Paediatric drug calculator available to download and print
- News and information section available

9.4.2 EDUCATION AND TEACHING

- KIDS-NTS provides outreach teaching sessions to WM hospitals; case reviews, clinical and skill teaching, and service operations
- KIDS develop & deliver tailormade RAPT courses for DGH
- BCH KIDS-NTS grand round twice-yearly
- 'Stabilisation of the Sick Child' study day held at BCH three times per year
- Annual regional critical care forum organised by KIDS
- Twice yearly NTS Transport Study day

9.4.3 OTHER RESOURCES

www.bwc.nhs.uk

www.networks.nhs.uk/nhs-networks/staffordshire-shropshire-and-black-country-newborn

www.swmmnn.org.uk

www.bliss.org.uk

Appendices

Appendix A – KIDS-NTS Consultant Roles & Responsibilities

Practicalities

1. Monday – Friday duty periods are from 8am-6pm or 6pm-8am. On weekends and bank holidays usual duty periods are 8 am to 6 pm or 6 pm to 8 am (KIDS consultant) and 8am to 8pm and 8pm to 8am (NTS consultant).

2. Monday – Friday the KIDS-NTS consultant must be present in the KIDS-NTS office for the daytime shift. Outside these hours the consultant must be contactable by either mobile telephone or landline

3. The means of communication must have been advised to the call centre operator

4. If a call cannot be taken immediately (e.g. while driving), the call must be returned within 10 minutes

5. The consultant must be immediately available to undertake retrieval duties throughout the duty period. They should not undertake any other activity from which they cannot be immediately released.

6. If bedside presence is required a SJA technician will arrange to meet the KIDS-NTS consultant and take them to the bedside. The SJA technician will ensure that the consultant is returned to an agreed place at the end of the retrieval.

   NTS consultant may choose to make their own way to the bedside. It will be the responsibility of the SJA technician to ensure the consultant can retrieve their car at the end of the transfer, when necessary. Expenses will be reimbursed by KIDS-NTS.

Appointment process

1. KIDS Consultants may be undertaken by substantive or locum consultants working in one of the regional PICUs. NTS Consultant duties may be undertaken by substantive or locum consultants working full or part-time in neonatal intensive care at either Birmingham Womens Hospital, New Cross Hospital (Wolverhampton) , Birmingham Heartlands Hospital or University Hospitals of the North Midlands.

2. For consultants not employed by BCH, appropriate contractual procedures must have been completed prior to undertaking any clinical duties

Duties

1. Receive all referrals through the KIDS-NTS call centre
2. Determine the appropriate method of transferring the patient
3. Provide advice to the referring clinician
4. Provide advice to the retrieval team
5. If referral to KIDS-NTS is inappropriate (e.g. overage or out of region patient, bed not available), provide advice on other options to access care
6. Support the retrieval team by telephone throughout the retrieval process
7. Support the retrieval team with bedside presence where necessary
8. Consultants must accompany the team if:

    - The team are still in training
    - The team is working outside its normal competencies
    - The team made a request to be supported

Training and competencies

1. All consultants working within KIDS-NTS will be competent to do so
2. Competencies need to be kept up-to-date