**Standard Operating Procedures – Clinical**

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**Paediatric Nurse Led Repatriation Transport Service**

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# **1 PRINCIPLES**

* 1. This Standard Operating Procedure (SOP) provides a framework within which the Paediatric Nurse Led Repatriation Service will operate
  2. Reviewed SOPs will be implemented once ratified by the Clinical Director and Director of Nursing in National Ambulance Service Critical Care Retrieval Services (NASCCRS)
  3. Mission Statement

To provide a ***timely, safe, efficient and expert repatriation of infants, children and adolescents in Ireland.***

The service:

* Supports the movement of paediatric patients along the hub and spoke framework of Children’s Health Ireland (CHI) outlined in the Paediatric Model of Care
* Repatriates paediatric patients from CHI to continue their care in an institution/Regional hospital nearer their home or to a facility that best suits the patients on-going needs
* Works with referring and accepting teams to ensure the optimal care is provided by the most appropriate team for any infant, child or adolescent requiring repatriation in Ireland
* Ensures appropriate patient triage and dispatches transport teams within a clinically appropriate time window
* Provides a single point of telephone contact for referring teams
* Facilitates access to online clinical support tools [www.ipats.ie](http://www.ipats.ie) / [www.nasccrs.ie](http://www.nasccrs.ie)

To achieve this, the Paediatric Nurse Led Repatriation Service will:

* Ensure that appropriate communication channels are in situ to enable and maintain efficient & effective continuity of patient care.
* Ensure every transfer is carried out in a way that maximises patient safety, comfort and dignity and minimises patient pain, discomfort, or distress and that of parents/guardians

# **2 SCOPE OF CARE**

* 1. The Paediatric Nurse Led Repatriation Service serves approximately 1.2 million children within the Republic of Ireland by providing support to hospital sites that provide acute care to infants, children and adolescents. Children who may meet criteria for this service include:
     1. All infants and children between 4 weeks corrected gestational age (greater than 3.5kg) and their 16th birthday who are triaged and deemed to require nurse led repatriation from CHI to an appropriate paediatric facility
     2. Transfer of non-acute paediatric patients to a facility outside of the State for on-going medical care not available in the State
     3. Repatriation of Irish paediatric patients from institutions outside of the State for continuing medical care in the State
     4. Transfer of patients to the care of a regional hospice or their home in line with the IPATS Intensive care led transfer of the medically complex child from a tertiary centre to Home, Hospice, or Regional Hospital for ongoing Palliative Care
     5. In exceptional circumstances, and at the discretion of the repatriation team and receiving institution, children over the age of 16 years who due to their specialist needs require nurse led transport
  2. Hours of clinical service
     1. The Paediatric Nurse led Repatriation service will operation between the hours of 08:00 until 20:00 Monday to Friday with the exception of national holidays
     2. It is expected that the team will have returned to base by 20:00
     3. It is hoped that the service will expand on a phased basis to a 7-day week day time service when additional funding and appropriate staffing is in place
  3. Acceptance criteria for transfer by the Paediatric Nurse Led Repatriation team.
     1. The STOPP (Safe Transfer of the Paediatric Patient) Tool outlines the patient criteria for acceptance to the Nurse led repatriation team. (See appendix 1)
     2. Repatriation from a tertiary centre back to a Regional Hospital should be considered when:
        1. A child no longer requires acute Tertiary level care
        2. A child no longer requires medical/surgical specialist team input, investigations or procedures

And

* + - 1. It is anticipated that the child will require inpatient care for at least 24hrs or more

And

* + - 1. Guardians give consent to the transfer.
    1. Nurse Led Paediatric transfers of patients over 4 weeks corrected gestational age and or greater than 3.5kgs suitable for repatriation to another care facility. The medical acceptance criteria for patients to be considered is:
       1. Children near or at cardio-respiratory baseline
       2. Consistent oxygen saturations >94% unless known and documented lower baseline i.e., cyanotic heart disease/chronic lung disease
       3. **≤** 2L 02 or **≤** 2L/kg/min (if High flow nasal cannula (HFNC) therapy) **and** Fi02 **≤ 30% and ideally no increase in Fi02 requirement in previous 24hr**
       4. No intravenous inotropic support. Established oral cardiac medications are acceptable
       5. No continuous infusions other than maintenance fluids
       6. No expectation of deterioration during transfer
       7. If on non-invasive (NIV) therapy via mask or tracheostomy, patient must be on stable settings close to or at baseline AND tracheostomy/NIV trained parent must be able to travel with their child
       8. No anticipated medication delivery during transfer period
    2. Neonatal patients under the age of 4 weeks or 3.5kg will ordinarily be transferred by the National Neonatal Transport Programme (NNTP). Exceptions to this will be considered only by request from the Consultant Neonatologist on duty for the NNTP if the neonatal patient meets the agreed criteria
  1. Referral Process to the Paediatric Nurse Led Repatriation team
     1. Referral should be electively arranged at least a day prior to anticipated transfer whenever possible, and be planned for departure in the morning
     2. Referral of a paediatric patient to the Nurse Led Repatriation team as follows: (see also Nurse Led Repatriation Referral Process Appendix 2)
        1. Patient identified by team on admission as being an external referral from a Regional Hospital
        2. Early discussion with family regarding repatriation upon completion of tertiary level care and assess potential consent/issues around same
        3. Daily consideration as to suitability for repatriation within next 24hrs
        4. Once identified as potentially suitable, team to discuss repatriation with guardians & Referring Hospital’s Patient Flow Manager
        5. Upon confirmation of repatriation, referring team to obtain accepting consultant and ward contact details
        6. Referring team to complete STOPP tool and discuss plan with guardians
        7. Once completed – Referring Patient Flow Manager/Clinical Nurse Manager (CNM) to contact the IPATS Repatriation Coordinator via NEOC 1800 222 378 and discuss STOPP tool results
        8. The NEOC Call Handler will then coordinate a call between the Referring CHI Consultant, Accepting Regional Consultant, Referring & Accepting CNM / Patient Flow Manager and IPATS Coordinator
     3. Referrals outside of the STOPP protocol or if additional needs required for the patient transfer, the IPATS Consultant may be added to the call if available. If not, the IPATS Coordinator must discuss with them as soon as possible regarding decision to transfer and liaise back with Referring CHI team
  2. Exclusions

The Paediatric Nurse Led Repatriation will not be responsible for the transfer of the following patient groups:

* + 1. Adult patients (patients who have passed their 16th birthday). In exceptional circumstances, young adults over the age of 16 years who have specialist needs are in transitional arrangements and require continued care in a paediatric setting will be transferred
    2. Primary pre-hospital transfers
    3. Patient transport service for patients to meet inpatient or outpatient planned appointments – in exceptional circumstances such a transfer may be undertaken at the discretion of the consultant on call for IPATS
    4. Patients that have been exposed to hazardous materials (see NAS Health & Safety policy)

# **3 DECISION TO ACTIVATE THE PAEDIATRIC NURSE LED REPATRIATION TEAM**

* 1. The decision to activate the Nurse Led Repatriation team is based upon the clinical information provided by the referring unit by a direct telephone referral on 1800 222378
  2. Then using the referral criteria, the decision to activate the team is the responsibility of the IPATS Coordinator in consultation with the IPATS consultant on duty, if required
  3. The decision to activate takes into account the workload for the Paediatric Nurse Led Repatriation team at the time of referral, the priority of calls (if there is more than one request for transport), and the competencies of the individual team members available at the time of referral
  4. All decisions will be clearly documented as part of the repatriation clinical records. Telephone calls will be summarised on to the referral record. Phone conversations will be digitally recorded and stored using the NEOC referral pathway
  5. The IPATS Coordinator and IPATS Consultant will decide upon the composition of the team based upon the clinical information available
     1. Teams will be made up of either:
        1. Transport Nurse only and Ambulance Technician
        2. Two Transport Nurses and Ambulance Technician
        3. In exceptional circumstances, a decision to activate a Non Consultant Hospital Doctor (NCHD) and Nurse delivered transfer may be made by the IPATS Consultant on duty following initial referral and assessment of the clinical condition of the patient (see section 5.5)
  6. When simultaneous referrals for the Retrieval team occur, a discussion with the CHI teams must ensue to ensure that the child referred for repatriation provides the maximum benefit to CHI bed flow
  7. For elective overseas transfer for specialist clinical care, the Nurse led Repatriation team may facilitate the transport if available and within operational hours. Overall organisation of these transfers must be undertaken by the referring team with the nurse led repatriation team undertaking the transport element of this process

# **4 RESPONSIBILITY AND ARRANGEMENTS DURING THE TRANSPORT PROCESS**

* 1. Introduction
     1. The transfer of patients by the Nurse Led Repatriation Team necessitates that the care of patients is handed over from the referring hospital to the transport team and joint responsibility of care is assumed, whilst in the referring hospital
     2. It is important to note that shared care during stabilisation and preparation for transfer is central to ensuring that patient safety remains paramount throughout the transport process
     3. Before accepting responsibility for a patient, the Repatriation Nurse/team should independently assess the patient and decide whether or not the transfer of the patient is within the set criteria and their experience and competence. Should they decide that this is not the case, clinical responsibility remains with the referring team until such times as alternative arrangements can be made. The IPATS Consultant on duty should be informed at the earliest opportunity, who will liaise with the referring consultant where required
     4. The repatriation team may have some transport specific clinical recommendations ahead of their arrival. If there are any concerns regarding these recommendations, they can be discussed with the IPATS Co-ordinator or IPATS consultant
  2. From referral to completion of handover at referring hospital
     1. The patient remains the sole responsibility of the referring hospital team until an adequate handover of the patient to the Nurse Led Repatriation team has been completed. This should be a verbal handover and can only take place once the Repatriation team has arrived at the patient’s bedside and have confirmed they are prepared to accept care of the patient
     2. On arrival at the referring hospital the Nurse Led Repatriation team will assume joint responsibility for the management of the patient with the referring hospital team
     3. It is expected that the referring team will render any assistance necessary to the Nurse Led Repatriation team to enable the safe preparation of the patient for transfer
     4. Sign over to the Nurse Led Repatriation team must be completed in the transport document by both parties before departing the referring hospital
  3. During transfer
     1. The Nurse Led Repatriation team are solely responsible for the patient’s welfare during the period of transfer
     2. The IPATS Consultant on duty is the medically responsible physician during the transfer window and will provide clinical support for the patient during the transfer. This line of responsibility is maintained despite a lack of physical proximity
     3. During this time the Nurse Led Repatriation team may receive advice from either the referring or receiving teams but will discuss this with the IPATS consultant before implementation
  4. From arrival in receiving hospital and completion of handover
     1. On arrival at the receiving hospital, the receiving team will assume shared responsibility with the Nurse Led Repatriation team for the care of the patient
     2. Responsibility for the patient passes completely over to the receiving team once the patient has been transferred off the transport trolley and, where required, stabilised on the receiving unit
     3. It is expected that upon arrival at the receiving hospital, the receiving team would, if necessary, render to the Nurse Led Repatriation team any immediate assistance necessary for the welfare of the patient. This may take place even before the handover process has been completed
     4. Sign over after patient handover should be completed by all relevant parties on the patient documentation
  5. Transfers delivered with the additional of a non-consultant hospital doctors (NCHDs).
     1. It is not anticipated that children requiring a doctor to accompany them will be suitable for repatriation however in extraordinary circumstance it may be possible to facilitate this
     2. The responsibility and accountability arrangements continue to apply when transfers are delivered by an NCHD
     3. Before accepting responsibility for a patient the NCHD will assess the patient and discuss it with the IPATS consultant. Suitability for NCHD supported transfer will be at the discretion of the IPATS consultant

# **5 MODE OF TRANSPORT, EQUIPMENT AND RESOURCES**

* 1. Mode of transport
     1. The Paediatric Nurse Led Repatriation team is a ground (ambulance) and fixed wing (plane) transfer service
     2. Ground transport is provided by the National Ambulance Service (NAS).
     3. Air transport is provided in collaboration by the Irish Air Corps and their Standard Operating Procedures
  2. Ambulances
     1. Ambulances are provided by the NAS and are provided as part of a service to NASCCRS.
     2. These ambulances should be specially adapted to the need of the paediatric and neonatal patients, for example:
* Interior temperature monitoring
* Medical gases supply
* Specialist fitting for transport equipment – cooler, oxygen blender etc.
* Appropriate power supplies
  + 1. NAS is responsible for the servicing and maintenance of the vehicles
* In the event of a vehicle being taken out of service for whatever reason the NAS must provide replacement vehicles
  1. Equipment
     1. The Paediatric Nurse Led Repatriation team uses a standard fixed height transport trolley to safely convey patients
     2. Transport trolleys are used for children over 3.5kg up to 100kg. The trolleys will take a maximum weight of 140kg but patients over 100kg will be assessed on a case by case basis
     3. Patients from 3.5kgs to 45kgs are secured on the trolley using paediatric safety harness systems such as Ambulance Child Restraints (ACRs) (2-45kgs) or Neomate (2.3-6.4kgs) or Pedimate + (4.5-45kgs)
     4. The transport trolley will be fitted with intravenous infusion pumps, appropriate ventilators, monitors and suction units
     5. Servicing and maintenance of transport equipment is carried out by personnel or specialist providers identified by the Clinical Engineering Department in CHI at Crumlin and Temple Street, to be suitably trained, qualified and or accredited to service such equipment
     6. Cleaning and decontamination of equipment is undertaken by all clinical staff adhering to national guidelines
     7. In exceptional circumstances, where it is in the best interests of the patient, other equipment may be used after discussion with the IPATS Consultant on duty. A risk management form will be completed in these circumstances
     8. Aeromedical Equipment is covered by separate Standard Operating Procedures but is subject to the same cleaning and decontamination procedures, reporting procedures and is approved by the aero-medical provider
     9. Measures are taken to monitor and decrease noise and vibration
     10. Measures will be taken to introduce a child-friendly environment into the vehicle where feasible
  2. Resources
     1. For the Paediatric Nurse Led Repatriation service, the most important resource is the staff who deliver the service. The health, safety & wellbeing of individuals is paramount to the effective, safe delivery of service
     2. The Repatriation team consists of:
* Senior Paediatric Nursing staff (who meet the IPATS Repatriation Nurse Specification / Selection Criteria, appendix 3)
* NASCCRS Intermediate Care Operatives
* NEOC call handlers who ensure that the telecommunication system runs smoothly and are the first point of contact for referring hospitals
* IPATS Consultants
  1. Wellbeing
     1. The Wellbeing of staff is paramount to the safe running of the service.
     2. Wellbeing of staff is promoted through:
* Fatigue awareness:
* Allowing staff to have appropriate breaks on long transfers
* Risk assessment of appropriate team make up, distance travelled and weather conditions
* Taking in to account previous transfers and traumatic events.
* A policy of no-smoking in the work place
* Ensure adherence to Mandatory training to include Manual Handling and Basic Life Support
* Information sharing via [www.ipats.ie](http://www.ipats.ie) / www.nasccrs.ie
* Raising awareness of:
* Organised physical events to promote fitness and team building
* Regular debriefing sessions

* 1. Training and Education
     1. All nurses and ambulance technicians will attend a two day IPATS Repatriation Induction Programme. This is followed by “buddy shifts” in the transport environment, with recognised learning outcomes and achievement of core competencies for all nursing team members (appendix 5 Competency booklet – to be revised!)
     2. It is staff members own responsibility to ensure maintenance of competencies and to alert Coordinator if retraining/upskilling is required.
     3. Training will be recorded on the Education database and reviewed on an annual basis.

# **6 DOCUMENTATION**

* 1. Patient identification

6.1.1 All calls concerning individual patients will have basic details recorded by Repatriation staff and a unique identification number attached (The NEOC activation number is used as I.D.).

6.1.2 Patient identification (surname, given name, date of birth and NEOC number) will be recorded on each page of the referral and transport forms.

* 1. All calls will be documented on the appropriate ACCEPT referral forms. These will form part of the clinical records for the patient and will be signed and dated by the individual completing them.

* 1. As part of the patient transport records, the relevant parts of the documentation will be completed for all transfers undertaken. This will include:
* Operational data.
* Summary of Patient’s details
* Guardian details
* Physical examination details
* Summary of interventions.
* Mandatory observations from the time of ‘first look’ until handover at the receiving hospital. These will be completed at a minimum of every 15-20 minutes and will include a record of any acute interventions.
* Pre-departure equipment, ambulance and patient checklist.
* Handover details at referring & receiving hospital.
* Transfer notes
* A record of any adverse events (in addition a risk management form will be completed for these).
* Any other information relevant to the transfer.
  1. All untoward incidents and adverse events will be recorded in the patient’s transfer notes. In addition, a risk management form will be completed and forwarded to the Risk Management Department in the receiving hospital. A copy will be kept for the IPATS Coordinator/ Clinical Lead. (See Appendix 4 IPATS Incident Reporting Algorithm).
  2. Copies of the IPATS transfer record will be left at the receiving unit to form part of the clinical notes. A copy will be returned to the IPATS Retrieval Coordinator to complete the records for that episode. All notes should be stored in accordance with the HSE standards and recommended practice for Healthcare records management.

<https://www.hse.ie/eng/about/who/qualityandpatientsafety/safepatientcare/healthrecordsmgt/>

# **7 MEDICATION**

* 1. It is not envisaged that any medication will be administered by the Paediatric Repatriation Nurse.
  2. In patients with known conditions who may require rescue/emergency drugs to be administered:
     1. A detailed plan should be agreed with the Referring Medical team and the Nurse Led Repatriation team in discussion with the IPATS co-ordinator (and escalated to the IPATS consultant where appropriate) prior to acceptance.
     2. The patient’s guardian must be informed of the emergency plan.
     3. All drugs must be prescribed by the Referring Medical team prior to commencement of the transfer on the patient’s drug prescription sheet.
     4. The drug must be drawn up, labelled and checked with the Paediatric Repatriation Nurse and a second checker +/- guardian in accordance with hospital policy and accepted best practice prior to leaving the referring hospital.
     5. If the rescue/emergency drugs are required in the transport environment, the drug must be rechecked with the guardian and administered promptly.
     6. The Repatriation nurse will contact the IPATS consultant if rescue/emergency medications are administered for further medical advice and support.
     7. A record of its administration should be made on the patient transport record.

# **8 GUARDIANS**

* 1. Guardians will be kept fully informed of all aspects of their infant/child’s care. These discussions will be recorded in the patient’s transfer records.
  2. Discussions with guardians will include:
     1. An update on the condition affecting their baby / child.
     2. The reason for transfer.
     3. An explanation of the process of transfer and the potential risks.
  3. Guardian consent for the transport will be taken by the Referring team before transfer
  4. One guardian may be invited to travel with their infant / child. In doing so they will be asked to abide by the safety precautions in place for ambulance travel.
  5. The Paediatric Nurse Led Repatriation team cannot be responsible for the health of the guardian accompanying their infant / child. Travel in the ambulance should only be offered if the guardian is medically fit to travel. In the event of a guardian become unwell whilst travelling, immediate assistance will be offered by the transport team.
  6. An information leaflet about the Nurse Led Repatriation Service will be provided to the child’s guardians at the earliest opportunity.
  7. A guardian may be asked to assist in the care of their child during the transport i.e. if trained in NIV or tracheostomy care. If they do not feel comfortable providing that support and additional nursing staff cannot be provided, then the transfer will be stood down for patient safety.

# **QUALITY & AUDIT**

* 1. Systematic review & evaluation of practice against established key performance indicators is essential to improve patient outcomes.
  2. It is the responsibility of the IPATS Clinical Lead and the IPATS Retrieval Coordinator to ensure that all transports carried out by the teams are reviewed in a timely manner.
  3. There will be a quarterly case review meeting to include: synopsis of the cases, background, outcomes and issues arising.
  4. Feedback will be provided to members of the repatriation team and the referring centres, with learning outcomes and recommendations provided.
  5. Feedback will be provided to the referring centres re patient progress and any repatriation issues, learning outcomes and recommendations provided.
  6. Opportunity for referring hospital to provide feedback to Repatriation team.
  7. Key Performance Indicators (KPIs) will be reviewed quarterly by the IPATS Retrieval Coordinator.

# **10 REFERENCES**

Safe transfer and Retrieval: The Practical Approach, Editors Peter O’Driscoll, Ian Macartney, Kevin Mackway-Jones, Elaine Metcalfe and Peter Oakley. 2008 Wiley Online, ISBN 978-0-4707-5743-7

Paediatric and Neonatal Safe Transfer and Retrieval: The Practical Approach, Editors Steve Byrne, Steve Fisher, Peter-Marc Fortune, Cassie Lawn and Sue Wieteska, 2008 Blackwell Publishing, ISBN 978-1-4051-6919-6

Medical Reference Manual, Adult Retrieval Victoria, January 2011, accessed on line at: [www.ambulance.vic.gov.au/ARV](http://www.ambulance.vic.gov.au/ARV)

**Appendix 1.**

**STOPP Tool**

**Appendix 2.**

**Nurse Led Repatriation Referral Process**

**Appendix 3. IPATS Repatriation Nurse Specification / Selection Criteria**

|  |  |  |
| --- | --- | --- |
| **Factors** | **Essential** |  |
| **Qualifications & Experience**  **(length and type)** | * Registered Children’s Nurse (RCN) * Five years post registration nursing experience including a minimum of four years’ clinical experience in an acute paediatric setting. | |
| **Professional Knowledge** | * Knowledge of paediatric care principles, methods, practices, standards and equipment. * Knowledge of quality and infection control standards. * Knowledge of the Scope of Practice for Nurse’s & Midwives as per the code of Nursing & Midwifery Board of Ireland. | |
| **Core Competencies** | * Effective interpersonal communication including creative problem solving & negotiation skills. * Perform as part of a multi-disciplinary team * Ability to use independent judgement. * Leadership skills. * Crisis management skills * Critical thinking skills | |
| **Special Competencies** | * Paediatric Life Support (PLS) Certification * APLS certification (or be willing to undertake) * Up to date with all mandatory & statutory training * Be proficient in:   + Tracheostomy tube management   + Percutaneous endoscopic gastrostomy (PEG) tube care   + Nasogastric (NG) tube care   + Oral and nasopharyngeal suctioning   + Oxygen therapy including high flow oxygen therapy   + Familiar in the use of Home Non-invasive Systems   + Assessment of indwelling intravenous catheters | |

**Appendix 4. IPATS Incident Reporting Framework**

