HSC NISTAR

Northern Ireland Specialist Transport & Retrieval

Standard Operating Procedure

Document Title	**Standard Operating Procedure for NISTAR Nurse Led Transport when an infant/child's clinical condition deteriorates during transfer.**
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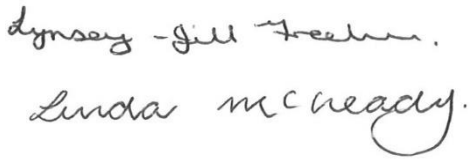
Author: Signature & date 15/07/2020		Name L.Freeburn L.McCready	Position NISTAR paediatric Co-Ordinator Transport Nurse
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No	Operating Procedure	Key Points
1	Introduction	NISTAR provides a nurse led transport service to all Neonatal and Paediatric units/wards within the region and to the All Island Congenital Heart Disease Network. A nurse led transfer consists of a Transport Nurse and an ACA. The category of a nurse led transfer is non urgent/elective. Suitability of an infant/child for a nurse led transfer should be determined by their clinical condition. See clinical criteria for nurse led transfers. (Appendix 1.) The infant/child should be stable at the time of departure from the referring unit. There should be no acute physiological considerations that are likely to require significant intervention during transport. An infant/child's clinical condition may deteriorate during transport due to their vulnerable physiology and the effects of the transport environment. Any nursing intervention for a patient deteriorating in the transport environment requires a safe, systematic and comprehensive approach. It is essential that the transport team communicate efficiently, prepare the age appropriate emergency equipment urgently and co-ordinate their actions to deliver interventions which are timely and effective. The benefits of intervention in the transport environment with a small team and limited equipment should always be weighed against the risk of delaying arrival at a receiving hospital with its staff and facilities.
2	Objective	To ensure the RIGHT infant/child is transferred at the RIGHT time, by the RIGHT team to the RIGHT place, in the RIGHT form of transport, receiving the RIGHT care throughout.
3	Scope	**WHO?** NISTAR core team - Service Manager, Medical Lead, Lead Nurse.

		NISTAR Neonatal Clinical Lead, Transport Consultants, Transport Co-Ordinator and Transport Nurses. NISTAR Paediatric Clinical Lead, Transport Consultants, Transport Co-Ordinator and Transport Nurses. NISTAR Nurse Led Team Transport Nurses. NISTAR Ambulance Care Attendants. **WHERE?** All NISTAR nurse led transfers within the region and for the All Island Congenital Heart Disease Network.
4	**Procedure**	Any deterioration in the infant/child's clinical condition during transport requires an urgent reassessment. Explain concerns and planned actions to the child and parent and request that they remain restrained until the vehicle has come to a complete stop. Ask ACA to stop the vehicle when safe to do so and at an appropriate place. Request their assistance in the back of the vehicle and their support of the parent. Transport nurse should • Stimulate infant/child and note response • Perform a systematic and comprehensive ABCDE assessment (Appendix 2.) • Check that all monitoring and equipment are functioning • Intervene as necessary • Review WETFLAG. (Appendix 3.) Relevant formulae and calculator in folder • Prepare age appropriate emergency equipment from trolley bag • Select appropriate Resuscitation Council guidelines from folder Ask ACA to contact • NIAS (NI) and request paramedic support/NAS (ROI) and request advanced paramedic support • NISTAR Consultant/Transport Co-Ordinator and keep on speaker to facilitate SBAR handover and receive advice about interventions for deteriorating infant/child

		The transport team may be instructed to WAIT for assistance, RETURN to referring unit, PROCEED to receiving unit or DIVERT to nearest hospital. Transport nurse to brief ACA and parent with plan. Transport nurse to ensure infant/child and parent are restrained and equipment safely stowed prior to urgent transfer. ACA to provide pre hospital alert and confirm access route to receiving unit. Blue lights and sirens may be necessary for urgent transport. On arrival at the receiving hospital, transport nurse should introduce transport team, provide SBAR handover and offer assistance to receiving team. If not designated receiving unit transport nurse should offer advice on organising alternative transport to the receiving team. ACA to continue to support parent. Transport nurse should update • NISTAR Consultant/Transport Co-Ordinator • ACA and parent • Designated receiving hospital Transport nurse should document • Deterioration , assessment, findings and interventions • Communications and advice received • Assistance and advice given at receiving hospital • Timings Transport nurse and ACA should collect equipment and documentation. Leave unit. Complete transport debrief. Transport nurse should arrange meeting with Transport Co-Ordinator, Transport Consultant and NISTAR core team to discuss actions taken, potential learning and completion of Incident Report (Datix) if required.
5	Regulation/ Guidelines/references	Advanced Life Support Group. Advanced Paediatric Life Support: A Practical Approach To Emergencies, 6th Edition. Oxford: John Wiley & Sons Ltd, 2016.

		Advanced Life Support Group. Paediatric and Neonatal Safe Transfer and Retrieval: The Practical Approach, Oxford: Blackwell Publishing Ltd, 2008. Paediatric Immediate Life Support Manual 3rd Edition (2016) London, Resuscitation Council UK.
6	Related documents	NISTAR transport competencies for Nurse Led Team. NISTAR Nurse Led Team Handbook. NISTAR study days. NLS Course PILS Course Appendices Appendix 1 Criteria for Neonatal and Paediatric Nurse Led Transfers Appendix 2 Specific assessments and actions in the initial ABCDE approach Appendix 3 WETFLAG formulae
7	Abbreviations	NISTAR Northern Ireland Specialist Transport and Retrieval Team ACA Ambulance Care Attendant NIAS Northern Ireland Ambulance Service NAS National Ambulance Service SBAR Situation, Background, Assessment , Recommendation
8	Revision history	This SOP reflects current practice for NISTAR nurse led transfers only. Development of the service should be reflected in future versions of this SOP Version 0.1 Initial draft.

Appendix 1

Nurse led transfer service criteria – 0-16yrs

Focusing on clinical criteria not individual conditions

The NISTAR nurse led service is staffed by specialist nurses proficient in the safe transfer; assessment and treatment of paediatric and neonatal patients. Prior to referring a patient to NISTAR, the referring unit / clinician should ensure the following:

- Medical review of the patient has been completed to ensure the patient is suitable for transfer by the nurse led team
- Confirm a bed is available in the receiving hospital.

Patients who meet the following criteria are suitable for transfer by the nurse led team:

Airway and Breathing

- PEWS/clinical observations normal or baseline for patient/condition
- Self-ventilating on room air or ≤2lts oxygen and at baseline for child (No High Flow)
- No chest drains – CXR post removal completed and reviewed
  - Previous chest drain in for pneumothorax must be out ≥24 hours
  - Previous chest drain in for post op drainage must be out ≥4 hours (ECHO completed)
- NP airway if long term and stable
- No significant desaturation in past 24 hours

Circulation

- PEWS/clinical observations within normal range and CRT≤ 2 seconds/baseline
- IV fluids acceptable (no recent periods of hypoglycaemia)
- NO CPR in previous 24hours
- No fluid blouses ≥40mls/kg within 6hours
- No pacing wires (out ≥24 hours and ECHO completed)
- No CVS drugs (inotropes/prostin/milrinone – this list is not exhaustive)
- No UVC/UAC

Disability

- Alert only or at child's baseline – no fluctuating GCS
- Discuss recent seizure activity with team – No clinical signs of raised ICP
- Any abnormal blood results must be discussed with team including recent hypoglycaemia

Exposure

- NG tube and OG tube acceptable
- Maintaining own temperature in an open cot

Parents will routinely be offered the opportunity to travel in the ambulance with their child. However, it should be noted that there may be occasions where this is not possible e.g. if the child has an infectious disease. Where a parent is unable to travel with their child, the NISTAR nurse will discuss with parents.

Please note that the nurse has the ability to decline / escalate a transfer if required

Appendix 2

Appendix 2 SPECIFIC ASSESSMENTS AND ACTIONS IN THE INITIAL ABCDE APPROACH

Assessment	Information sought	Possible resultant actions
On approaching the child	**Note:** • **General appearance** • **Interaction with parent**	
A Airway patency	Is the airway: • Patent (i.e. conscious, vocalising) • At risk • Obstructed	• Suction if indicated • Head positioning • Oropharyngeal airway • Reassess • Summon help
B Breathing adequacy	Note/ observe/perform: • Conscious level • Air movement (look, listen, feel) • Respiratory rate • Chest expansion • Use of accessory muscles/ recessions • Palpation • Auscultation • SpO2 and FiO2	• Administer high-flow oxygen appropriately via non-rebreathing mask • Support breathing with bag-mask ventilation (BMV) as necessary • Reassess • Summon help
C Circulation adequacy	Note/observe/perform: • Evidence of haemorrhage/fluid loss • Conscious level • Heart rate • Capillary refill time • Presence of distal/central pulses • Pulse volume features • Skin temperature and colour	• Control any external bleeding • Attach monitoring • Check circulatory access (IV) • Blood glucose if required • Fluid bolus (10-20ml/kg) • Reassess

	• Non-invasive blood pressure • Urine output	• Summon help
D Disability (conscious level)	Note: • AVPU score • Interaction with parent • Posture and muscle tone • Pupil size and reactivity	• Reconsider A, B and C management as conscious level dictates • Establish portable glucose estimation • Establish medications given • Reassess • Summon help
E Exposure	Note/ observe: • Evidence of any blood loss/skin lesions/wounds/drains/rashes etc • Temperature	• Consider appropriate temperature control measures • Reassess • Summon help

Adapted from Resuscitation Council UK. (2015). *The ABCDE approach.* Retrieved from https://www.resus.org.uk/resuscitation-guidelines/abcde-approach

Appendix 3

NISTAR WETFLAG 0-16yrs

Weight (KGS) _____

Energy (joules) 4j/Kg _____

Tube <9 months 3.5mm _____
>1 year (age/4+4)

FLuids 20 ml/Kg 0.9%NaCl _____

10 ml/kg (trauma or DKA) _____
(Max 500mls then reassess)

Adrenaline 0.1 ml/Kg of 1:10 000 IV _____

Glucose 2mls/Kg 10 % Glucose _____