

North West London Haemoglobinopathy Clinical Network

Guidelines for the transfer of Paediatric sickle cell disease patients to the intensive care unit/ high dependency unit

1. Purpose and scope of document

This document provides guidance for clinicians to help them identify and manage the safe transfer of care for paediatric sickle cell disease patients who may benefit from escalation of care to a high dependency unit (HDU) or a paediatric intensive care unit (PICU).

It covers:

- Identifying patient deterioration that warrants escalation of care
- Essential processes to be followed to ensure safe transfer of care
- Where to go for help and guidance on where to transfer patients

This guidance has been developed by an expert group of clinicians and health professionals in North West London hospitals with citizen input using the latest relevant clinical evidence and local protocols to underpin this advice.

2. Essential information for Escalation of care to a PICU or HDU:

2.1. Principle actions governing escalation of care:

- Unstable, deteriorating patients who require CPAP or have evidence of evolving multi-organ dysfunction are likely to require early liaison and transfer to HDU or PICU for further care.
- It is important to discuss any patient likely to require HDU/ PICU admission as early as possible with the CATS team (Children's Acute Transfer Service) or, in the case of an HDU transfer, the local HDU. CATS is an intensive care transport team serving around 50 hospitals in North Thames and other regions in and around London, Please see their website for information and clinical guidelines relating to the safe transfer of patients: <https://site.cats.nhs.uk>.

- Definitive treatment, if available, should be initiated whilst awaiting transfer where possible
- All cases requiring transfer to an HDU or PICU setting should have a multidisciplinary approach, which is likely to include:
 - Local consultant paediatrician
 - Local consultant anaesthetist (or SpR)
 - Local paediatric haematologist or consultant haematologist
 - Receiving PICU or HDU Lead or Deputy
 - Receiving unit haematology Consultant or SpR
 - CATS team (or other retrieval service)

2.2. Exceptional circumstances:

Clinicians should be aware of the following situations:

- Unless in extremis, children with a suspected surgical emergency should be transferred to a suitable surgical centre where there is both paediatric HDU and specialist haemoglobinopathy cover. Pre-operative preparation may need to begin at the referring hospital site.
- Children who have had an acute **haemorrhagic** stroke require urgent transfer to a neurosurgical centre: Great Ormond Street Hospital (GOSH) or King's College Hospital (KCH). Definitive treatment is surgical and must not be delayed for any reason. If CATS retrieval is delayed then consider LAS transfer.

2.3 Indications to escalate:

- Airway compromise
- Actual or impending respiratory failure with incipient exhaustion
- Critically ill, unstable patients who require treatment and monitoring not available outside of PICU
- Hypotension requiring inotropic support
- Sepsis syndrome with haemodynamic instability

- Renal failure likely to require dialysis/haemofiltration
- Multi-organ failure
- Access to emergency manual or urgent automated exchange transfusion procedure if not available on site
- Deteriorating/unstable child with suspected or confirmed:
 - Acute Chest Syndrome
 - Girdle syndrome
 - Stroke with altered mental state and/or coma
- Post operative care for planned or emergency surgery
- Acute stroke with altered mental status or coma

3. Transfer to a Centre with Paediatric Intensive Care Unit or High Dependency Unit.

- CATS retrieval service: 0800 085 003
- St. Mary's: 020 7886 6666 – Ask to Speak to the HDU SpR

It is important to speak to the CATS retrieval service (0800 085 003) regarding transfer to another hospital for ICU/ HDU care. See website: <http://site.cats.nhs.uk>.

Clinicians will be asked to indicate the receiving unit of preference:

- HDU care: St Mary's Hospital
- PICU care: St. Mary's Hospital or Great Ormond Street Hospital
- Neurosurgical Care (haemorrhagic stroke): Great Ormond Street Hospital or Kings College Hospital
- Hepatic/ Liver failure: King's College Hospital
- Surgical Care: Chelsea and Westminster Hospital (note linked to St. Mary's) or Great Ormond Street Hospital

Whilst awaiting transfer clinicians should initiate as much definitive care as possible to support the patient and prevent further deterioration. In general, once the decision has been made for exchange transfusion, this should be completed as quickly as possible at either the local or specialist centre depending on individual circumstances.