**Blood transfusion in patients withThalassaemia**

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| **Profile** | |
| **Version:** | *V3.1* |
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| **Executive/Divisional sponsor:** | *Dr Lisa Pickering, Divisional Chair (v3.0 Feb 2019)* |
| **Applies to:** | *All staff involved in the care of patients with Thalassaemia* |
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| **Approval** | |
| **Approval person/Committee:** | *MedCard Divisional Governance Board* |
| **Date:** | *14th February 2019* |
| |  | | --- | | **Approval person/Commite:** | | **Date:** | | *Hospital Transfusion Committee* |
| **Date:** | *March 2020* |

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**Policy Gateway**

Please complete the checklist and tables below to provide assurance around the policy review process.

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| ☒ I have involved everyone who should be consulted about this policy/guidance  ☒ I have identified the target audience for this policy/guidance  ☒ I have completed the correct template fully and properly  ☒ I have identified the correct approval route for this policy/guidance  ☒ I have saved a word version of this policy/guidance for future reviews and reference |

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| Please set out what makes you an appropriate person to conduct this review: |
| Consultant for Adult Haemoglobinopathy service |

|  |
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| Please set out the legislation, guidance and best practice you consulted for this review: |
| * West Midlands Review Service – Quality Standards: Health Services for People with Haemoglobin Disorders (2018/19) * Clinical Commissioning Policy: Treatment of iron overload for transfused and non transfused patients with chronic inherited anaemias: Reference: NHS England: 16070/P (April 2016) * Standards for the clinical care of children and Adults with Thalassaemia in the UK – UKTS – 3rd Edition, 2016 |

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| Please identify the key people you involved in reviewing this policy why, and when: |
| * Kelly Feane – Lead Transfusion Pracititioner |

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| Summarise the key changes you have made and why: |
| Updates in line with the UK standards of care for SCD  Updated contact details  V3.1 – updated for formatting reason |

**Executive Summary**

Transfusion in patients with Sickle Cell Disease (SCD) and thalassaemia is increasing rapidly across the UK but with variability in indications and lack of robust evidence in many cases. This guideline describes the indications, management and process (including safety and selection) for blood transfusion in thalassaemia.

## Introduction

Transfusion in patients with Sickle Cell Disease (SCD) and thalassaemia is increasing rapidly across the UK but with variability in indications and lack of robust evidence in many cases. This guideline describes the indications, management and process (including safety and selection) for blood transfusion in thalassaemia.

These guidelines should be used in conjunction with the St George’s University Hospitals NHS Blood Transfusion Policy <http://stg1wordpress01/wordpress/wp-content/uploads/2016/06/Blood-Transfusion-Adults.pdf>

## *Status and Purpose*

*This document is part of the Haematology Department’s guidelines on the management of patients with SCD and is applicable to all staff involved in the care of these patients.*

## *Definitions*

*Sickle Cell Disease – inherited lifelong condition due to abnormal haemoglobin variant.*

## *Scope*

*This guideline is relevant to the care of patients with SCD requiring elective and emergency surgery at St.George’s.*

## *Roles and Responsibilities*

### *5.1 Haemoglobinopathy team (Consultant haematologists, Clinical Nurse Specialist and Clinical Health Psychologist) – Responsible for the care of these patients, developing and updating guidelines to be reflective of good practice and to deliver the training to ensure good safe care.*

***5.2 Medical staff involved in the care of patients with SCD.*** *Responsible with the oversight of the haemoglobinopathy team to deliver the care to these patients in line with guidelines where possible.*

***5.3 Nursing staff and allied health professionals involved in the care of patients with SCD on wards, day unit and other areas of St George’s*** *responsible with the oversight of the haemoglobinopathy team to deliver the care of these patients in line with guidelines where possible.*

1. **Content**

* Patients with **transfusion dependent thalassaemia, (TDT, β thalassaemia major )**  do not produce sufficient haemoglobin to sustain healthy growth and so require regular red cell transfusions, usually with a regimen of around 2-4 units every 2-4 weeks. The goal in these patients is to maintain a pre-transfusion Hb of greater than 95g/L to maintain good health, reduce bone marrow expansion and to minimise the development of iron overload.
* Patients with **non-transfusion dependent thalassaemia, (NTDT, β thalassaemia intermedia) or HbH** **disease** **(α thalassaemia)** may need intermittent transfusions at times of physiological stress or increased metabolic need (eg pregnancy, puberty) – these patients’ requirements will be decided on individual clinical grounds.

All **unplanned transfusions** for patients with thalassaemia must be discussed with the haematology team caring for the patient.

The **blood transfusion laboratory** must be made aware that the recipient patient has thalassaemia so that extended phenotyping can be done and appropriately crossmatched and sickle negative blood can be provided. These patients are not suitable for rapid cross match.

All patients with a haemoglobinopathy should, at their first engagement with the hospital, have a sample sent to the blood transfusion laboratory for a full, extended red cell antigen phenotype (and genotype where possible) as well as the standard ABO and Rh blood group.

**INDICATIONS FOR TOP UP TRANSFUSIONS**

β THALASSAEMIA

* As part of regular transfusion programme or if Hb has fallen less than 95 g/L in TDT
* At specific times for those with NTDT when a higher Hb is required

Patients with TDT receiving regular transfusions are managed on the ruth myles day unit. Monitoring should include review of pre transfusion Hb levels with an aim for the pre transfusion Hb to be >95g/L as well as ferritin levels

Venous access is usually peripheral with the aid of ultrasound guidance and should be achieved within 3 attempts (though if more than once is required regularly this should be escalated). Wherever possible ports and indwelling central lines should be avoided in patients with TDT due to increased risk of line thrombosis and infection

## Dissemination and implementation

### 7.1 Dissemination:

Guidelines will be available on the departmental intranet page and available in paper form in the junior doctor office in haematology.

### 7.2. Implementation

Guidelines will be promoted by the haemoglobinopathy team.

## Consequences of Breaching the Policy

## Failing to follow this policy could lead to action under the Trust’s disciplinary policy.

## Monitoring compliance

The table below outlines the process for monitoring compliance with this document.

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| **Monitoring compliance and effectiveness table** | | | | | |
| **Element/ Activity being monitored** | **Lead/role** | **Methodology to be used for monitoring** | **Frequency of monitoring and Reporting arrangements** | **Acting on recommendations and Leads** | **Change in practice and lessons to be shared** |
| *WMQRS peer review quality standards* | *Consultant haematologist* | *As required (every 2-3 year)* | *The lead or committee is expected to read and*  *interrogate the report to*  *identify deficiencies in the system and act upon them. Consider stating this responsibility in committee terms of reference.* | *Required actions will be identified and completed in a specified timeframe.*  *Consider stating this responsibility in committee terms of reference.*  *These will be discussed at Divisional governance board* | *Required changes to practice will be identified and actioned within a specific timeframe. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.* |

## Associated documentation

Incentive Spirometry guideline for adults admitted with sickle cell crisis at risk of acute chest syndrome

## References

* West Midlands Review Service – Quality Standards: Health Services for People with Haemoglobin Disorders (2018/19)
* Standards for the Clinical Care of Adults with Sickle Cell Disease in the UK 2018 (Sickle Cell Society) <https://www.sicklecellsociety.org/wp-content/uploads/2018/04/Web-version-FINAL-SCS-Standards-GSM-6.4.18.pdf>
* British Society Haematology : guidelines Red Cell Transfusion in Sickle Cell Disease Part I and Part II (7.11.17 and 18.11.18) <https://b-s-h.org.uk/guidelines/guidelines/red-cell-transfusion-in-sickle-cell-disease-part-l/>