NHS
Blood and Transplant

To: All transfusion colleagues involved in the transfusion of patients

01 November 2023

Joint Statement from NHS Blood and Transplant, National Blood Transfusion Committee, United Kingdom Thalassaemia Society and Sickle Cell Society.

Removal of maximum age requirements for red cells transfusion to patients including those with Haemoglobinopathies

NHSBT released a statement in January 2023 requesting Clinical leads responsible for the transfusion of patients with haemoglobinopathies to remove the maximum age requirement for red cell transfusion. At that time the aim of the request was to support the management of the Amber Alert on red cell stock.

We ask you to continue this practice.

Multiple haematology centres implemented this as a permanent change to practice and have reported that it has allowed them to provide better phenotypically matched red cells and improve blood inventory management at their sites.

A literature review has identified limited evidence to support the recommendation of transfusing fresh blood to adult patients, and past UK guidance on age of blood for patients with sickle cell disease has been pragmatic and not strongly evidence based. In contrast there are multiple studies describing an increased benefit in transfusion of red cells that more closely match the patient's own ABO group and extended red cell phenotype.

Red cell maximum age requirements are not in place in other countries that use red cell exchange in sickle cell disorders.

The change in approach reflects the continuous improvement in medical knowledge and practices, including in iron chelation, aiming to provide the best possible care for patients. It is important to adapt and incorporate new evidence-based strategies to enhance the quality of life and transfusion experience for these individuals.

It has been agreed that the BSH guidelines on red cell transfusion in sickle cell disease and on pre-transfusion compatibility procedures in blood transfusion laboratories will be updated in this respect.

This recommendation to remove the maximum age requirement for red cell transfusion primarily applies to Haemoglobinopathy patients. It should also be emphasised that red cells up to standard shelf-life are considered appropriate for transfusion to all other patient groups (apart from neonates and infants receiving large volume transfusions).

Patient type	Other considerations	Recommendation to continue apply age restriction to red cell units	
		Top up	Exchange
Sickle Cell Anaemia	over 1 year old	No	No
Thalassaemia		No	No
Cardiac surgery, Major haemorrhage one-off	over 1 year old	No	No
Diamond-Blackfan anaemia	over 1 year old	No	No
Other transfusion dependent patients	MDS	No	No
	AML	No	No
Neonates and Children less than 1 year		Yes	Yes

We ask Hospital Transfusion Laboratories to stop requesting 'fresh' or 'max life' units when creating OBOS orders for red cells for those patient groups where it is safe to remove the maximum age requirement. We will be looking at how we can develop OBOS to support appropriate ordering.

You should continue to match for ABO and extended Rh and K type (D,C,c,E,e,K antigens) for patients with haemoglobinopathy disorders, as recommended in national guidelines. NHSBT blood stock cannot currently support routine extended matching. However, work is ongoing within NHSBT to address this with the aim to being able to provide extended matched blood in the future. The removal of the maximum age of blood restriction for haemoglobinopathy patients will help support these initiatives. It will increase the available pool of rare R_0 red cells units for transfusion to those patients who require them. It will also reduce the pressure on overall stock levels by reducing the need to substitute for R_0 red cells with group O negative and B negative red cells.

Thank you for your support.

Please cascade to laboratory and clinical staff as appropriate.

Kind regards,

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