

To: Pathology Network Directors  
cc. Jane Mills, Professor Jo Martin

NHS England  
Wellington House  
133-155 Waterloo Road  
London  
SE1 8UG

4 September 2023

Dear Colleague,

### **Preparations for blood group genotyping for people with sickle cell, thalassaemia and rare anaemia**

NHS England (NHSE) has invested in a new national programme of work to better match blood groups for all current patients in England (circa 18,000) living with inherited anaemias including Sickle Cell Disorder and Thalassaemia. The NHS in England will soon be able to offer blood group and HLA genotyping for the current cohort of people with sickle cell, thalassaemia and transfusion dependent rare anaemias, which will be funded by NHS England, free of charge to hospital trusts until March 2024.

In preparation for the start of patient sampling for the [National Blood Group Genotyping Programme](#) delivered by NHS Blood and Transplant, all pathology services should prepare by implementing the following actions:

- 1) **Add the test to your LIMs and/or other Information Management Systems. The [request form](#) can be used in three ways:**
  - a. Embedded within hospital order comms so the majority of fields can be auto-filled.
  - b. An electronically editable PDF, then printed.
  - c. Printed and filled in by hand – note NHS Blood and Transplant, who are delivering the work will not be supplying paper forms.
  
- 2) **Inform clinical and laboratory colleagues about this programme and the plans for sampling and recruiting patients using the information available on the [NHS Blood & Transplant website](#), including a set of Frequently Asked Questions for [hospital & lab staff](#) and [patients](#).**
  
- 3) **Identify eligible patients**, outlining the benefit, invite them for testing as part of routine appointments, discuss and note consent on the request form.
  
- 4) **Develop a local strategy to collect and submit samples** once patient sampling formally starts.



**NHS Blood and Transplant anticipate commencing sample collection in England from October 2023**– you will be formally notified of the start date. **Please do not send samples until notified that the programme has commenced.**

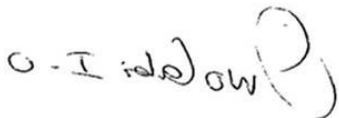
The programme aims to use a DNA testing array, developed by the Blood transfusion Genomics Consortium to provide extended blood group genotyping and HLA typing for all patients with sickle cell, thalassaemia and transfusion dependent rare anaemias. Once we notify you of the start date, please ensure that all patients with these conditions attending hospital are invited to have a blood group genotype DNA based test alongside their routine blood test, even if they have had an extended red cell genotype/phenotype before.

With this programme, alongside a related programme that is being rolled out to increase blood donations, it will be possible to identify better matched blood for transfusion and so reduce antibody formation. For those that already have antibodies it will be easier to find suitable blood for transfusion and so will improve overall care of patients receiving blood transfusions.

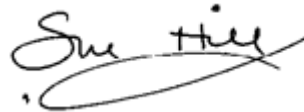
Further information on this programme for hospitals and patients can be found [here](#). If you have any questions please contact [molecular.diagnostic@nhsbt.nhs.uk](mailto:molecular.diagnostic@nhsbt.nhs.uk)

With our grateful thanks for your support

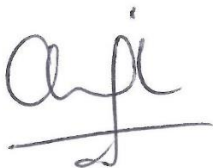
Yours sincerely,



**Professor Bola Owolabi**  
Director of National Healthcare Inequalities  
Improvement  
NHS England



**Professor Dame Sue Hill**  
Chief Scientific Officer, England, Senior  
Responsible Officer for Genomics  
NHS England



**Dr Gail Mifflin**  
Chief Medical Officer  
NHS Blood and Transplant



**Professor David Roberts**  
Medical Director, Pathology  
NHS Blood and Transplant



## For Your Information: Send all samples at ambient temperature

Address all samples to **"Molecular Diagnostics - Diagnostic Specimens"** and use the correct address for the laboratory.

NHSBT CENTRE	ADDRESS	Phone - LAB
Filton	500 North Bristol Park, Northway, Filton, Bristol, BS34 7QH	0117 921 7572

These tests are being made available for patients with sickle cell, thalassaemia and rare inherited anaemias (where the patient is transfusion dependent) ONLY at this time. Results will not be available immediately. For urgent testing send samples via the established routes. These tests are being provided free of charge for NHS patients, funded by NHSE. More information can be found at <https://www.nhsbt.nhs.uk/what-we-do/clinical-and-research/blood-group-genotyping/>

### Consent

Where consent is required for an investigation or to comply with the Human Tissue Act (2004) legislation it is the responsibility of the requester submitting a sample, to ensure that any patient has been informed of, and has provided valid consent to all the tests being requested including genetic tests in accordance with current guidance and legislation. The requester may be asked to provide a copy of this valid consent. Consent for the use of any data and investigations using surplus sample for scheduled purposes (quality assurance, education or training relating to human health or ethics committee approved research) should be obtained by the requester. If one or more tests are declined this must be made clear on the accompanying request form.

Patients should be informed that a sample may be stored as part of required archiving protocols or to enable further investigation for the benefit of the individual. Surplus sample or data may be used anonymously for quality assurance, education or training relating to human health or ethics committee approved research. If the patient refuses consent for the use of surplus sample for these purposes, such refusal of consent must be properly recorded by the requester on the request form and communicated to NHSBT at the time the sample is sent to NHSBT.

The primary reason for testing is to determine blood group and Human Leucocyte Antigen (HLA) types. Relevant findings will be reported to the NHS referring team for clinical care and added to electronic patient records. The British Society for Genetic Medicine and Royal College of Pathologists Guidance on Consent and Confidentiality in Genomic Medicine will be followed (<https://www.rcpath.org/static/d3956d4a-319e-47ca-8ece8a122949e701/Consent-and-confidentiality-in-genomic-medicine-July-2019.pdf>).

### IMPORTANT: Sample labelling / completion of request form

Three points of identification must be used on the form and on the sample tubes (tube and form details must agree):

**1.** Forename AND surname **2.** Date of birth **3.** NHS number (mandatory requirement and **must** be provided).

Further copies of this form can be obtained from: <https://tinyurl.com/5n8bn4cf>

### Sample Requirements

Blood:

6ml EDTA for Adults/children over 12 years

2ml EDTA 6 months-12 years

1-2ml EDTA for under 6 months

Note: Additional samples may be requested to perform supplemental tests for complex cases. The laboratory will contact you if necessary.

### Blood sample integrity, storage & transportation

Samples should be transported at ambient temperature and delivered to the laboratory in a timely manner preferably within 24 hours of collection to ensure sample age is not a limitation factor for testing.

Prior to transportation, samples can be stored at 4°C before sending. Samples must be labelled and packaged as Biological Substance Category B, UN 3373 and must meet PI650. Samples must reach the laboratory in time to be processed during laboratory working hours: Monday to Friday 07:00-18:00 and Saturday 07:00-16:00.

### Further information

All information provided to NHS Blood and Transplant is used in accordance with the General Data Protection Regulation (GDPR) and all other applicable privacy legislation. For more information on how we look after personal details or to find out more about privacy rights visit [www.nhsbt.nhs.uk/privacy](http://www.nhsbt.nhs.uk/privacy) or call 0300 123 23 23.

NHSBT is committed to keeping data safe and confidential.

NHSBT H&I information can be found at <https://tinyurl.com/y4xre49f>

\*ODS code refers to the NHS Hospital location code, previously known as the NACS organisation code or NHSIA location code eg RJ701 or RQ8MY.

\*NHSBT terms and conditions <https://tinyurl.com/yc4jddcj>