Referral of Samples to Red Cell Reference

The main function of the Red Cell Reference Department of the IBGRL is to undertake alloantibody investigations of a non-routine and complex nature where compatible blood is difficult to find.

1. Antibodies to high frequency antigens and complex mixtures

Case Acceptance Criteria (all must be met)

- Antibodies that react with all or the vast majority of cells.
- Minimum 2+ reactions by LISS tube (IBGRL will not investigate weak gel-only antibodies).
- Alloantibodies only, please perform the autologous control untreated and papain treated.
- A phenotype/genotype for all common blood group antigens should be provided.
- Please provide a complete and accurate clinical history including information regarding previous transfusions, pregnancies and administration of any monoclonal antibody therapies.

Sample Acceptance Criteria

- Minimum of 10ml EDTA blood. Larger samples are preferable and sometimes may be essential.
- Anticoagulated samples should not be separated.
- Clotted samples will be accepted if supplied with anticoagulated samples also.
- Separation of clotted samples is optional.

2. Antibodies to low incidence antigens

Case Acceptance Criteria (all must be met)

- Antibody to a single example of donor cells or baby's / father's cells in case of maternal antibody.
- Minimum 2+ reaction.

Sample Acceptance Criteria

- Minimum of 10ml EDTA blood from the patient PLUS 10ml EDTA blood from the incompatible donor or father.
- In the event of a suspected transfusion reaction red cells will be accepted from the implicated unit.
- Antibody AND incompatible cells MUST BOTH be provided.

3. Red cell antigen investigations

Case Acceptance Criteria (all must be met)

- Carried out on any blood group system where determination of phenotype is difficult or an uncommon blood group is suspected.

Sample Acceptance Criteria

- Minimum of 10ml EDTA sample.
- Rh problems with a Rh-related antibody BOTH plasma and red cells must be provided.

4. DNA analysis

Case Acceptance Criteria (all must be met)

- As in 1. 2. or 3. Above.
- D referrals may undergo allele specific PCR for the detection of Weak D type 1 and 2 alleles.
- DNA analysis (e.g. gene sequencing) may be performed as part of an antibody / antigen investigation but is not ordinarily offered as a stand-alone test.

Sample Acceptance Criteria

- As in 1. 2. or 3. Above.
- DNA only may be received, however please telephone or email to discuss the case before dispatch of the samples.
- Minimum of 100µl of 20ng/µl DNA.

5. Other referrals

- Other types of referrals will be considered.
- It is essential to telephone or email to discuss the case before dispatch of the samples.

Referrals

IBGRL staff can be contacted by email or phone to ensure that referrals are appropriate. Clinical advice will not be provided by IBGRL staff, referral to the NHSBT Diagnostic Consultant is possible, if appropriate.

Referral of samples accompanied by a signed and completed Red Cell Reference External Request Form (FRM5891) and acceptance of this sample for testing by IBGRL constitutes an agreement between the Requester and NHS Blood and Transplant as outlined in the terms and conditions on FRM5891. Guidance for completing FRM5891 can be found in INF1451. See ibgrl.blood.co.uk/ for FRM5891 and INF1451.

Samples will not be returned to the referring laboratory. Urgent referrals are defined as those where blood for transfusion is needed as quickly as possible. It is essential that the red cell reference laboratory is contacted by telephone or email to discuss the case prior to sending urgent referrals.

There is no specific time limit within which samples must be sent. However, sample quality can affect test performance and the ability of IBGRL to obtain conclusive results. Samples should be sent in a timely manner and be stored and shipped appropriately, so as to ensure that they arrive at

IBGRL in good condition. Samples that are received in poor condition e.g. severely haemolysed may be rejected. The referring lab will be informed as soon as possible if our testing is limited by the condition of the samples.

Samples should be packaged in accordance with the current Transport of Dangerous Goods: United Nations Model Regulations to prevent breakage or spillage in transit.

Referrals from within England will only be accepted from NHSBT RCI labs and not directly from hospitals.

Ideal patient identification

- Surname / family name and first name(s) in full.
- Date of birth.
- Unique identification number e.g. NHS number, hospital number (the same number must be on both the tube and the form).
- Date of venepuncture / sampling.

Delivery

All packages should be clearly labelled with:

- IBGRL address.
- Sender's name and address.
- If delivery is likely to take >24hours consider packaging red cell samples in chilled containers (e.g. 2 - 8°C).

Within the UK

- Non urgent by first class mail.
- Urgent by courier ensuring door-to-door delivery.

Outside the UK

- By express mail, courier or air-freight ensuring door-to-door delivery.

Reporting

Results will only be released to the referring laboratory. Hospitals in England must contact their local RCI laboratory for updates, preliminary and final reports. Reports will normally be sent by first class mail. In urgent cases, or when requested, preliminary results may be given by email or telephone prior to mailing a final report.

Due to the varying nature of the requests sent to Red Cell Reference a turnaround time cannot be specified. The time between receipt of sample and reporting will depend on the clinical situation of the patient, the complexity of the investigation and the number of samples in the laboratory at any given time. Cases are prioritised and therefore some investigations may be necessarily delayed.

Red Cell Reference will contact the referrer within 6 weeks of receipt of the sample, to discuss the progress of the case.

Correspondence

User Assessment

We would be grateful if referrers would participate in our regular user satisfaction surveys. These are distributed via email to the referring laboratories and can also be found on the IBGRL website.

Complaints Procedure

IBGRL Red Cell Reference is committed to continuously improving the quality of services provided and welcomes any comments or suggestions from users. Please contact the Laboratory Manager or Head of Department in the first instance regarding complaints and suggestions. Complaints are managed via our Quality Management system or Customer Services as appropriate. We always strive to provide a satisfactory response to any complaint. In the unlikely event that your complaint is not resolved to your satisfaction please refer to the NHSBT complaints procedure. http://hospital.blood.co.uk/customer-services/complaints-compliments-and-feedback/

Data protection/privacy assurance/consent for genetic testing.

All information provided to NHS Blood and Transplant is used in accordance with the General Data Protection Regulation and all other relevant privacy and data protection laws. To find out more about your privacy rights please visit our website https://www.nhsbt.nhs.uk/privacy/. Staff access to the patient information is on a need-to-know basis for clinical care purposes only and patient confidentiality is respected at all times.

In some cases resolution of the request will require genetic testing in conjunction with serological investigations. All testing requires informed consent. It is the responsibility of the test requester to ensure appropriate patient consent has been obtained. The laboratory assumes that, on receipt of a clinical sample and a completed referral form, consent for genetic testing has been obtained. Where appropriate, extracted DNA is stored for NHSBT quality assurance purposes or service development within NHSBT. Genetic material is not distributed outside of NHSBT unless specific informed consent from the individual is obtained.

Measurement Uncertainty
The MoU for assays used has been determined and documentation is available on request.

Address for packages
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UK

Enquiries
Working hours: Monday-Friday 09:00–17:30

General Enquiries
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