

## MANAGEMENT OF DAT POSITIVE DONORS AND RED CELL COMPONENTS

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**REASONS FOR CHANGE:** eTraceline cannot print DAT results on the component phenotype label; refer to 140M314 instead of duplicating instructions for DA to refer units for investigation; updated document numbers.

### 1. PURPOSE

To ensure appropriate management of donors with a positive DAT (Direct Antiglobulin Test) and the donor's red cell components (referred to as units throughout the remainder of this document).

### 2. SCOPE

This procedure relates to the follow-up of units and donors found to be DAT positive, e.g. during:

- Routine donation accreditation of WBPR or IUT units in Donation Accreditation (DA)
- IAT crossmatching (BB or Reference Laboratory)
- Transfusion reaction investigation (BB or Reference Laboratory).

### 3. KEY RESPONSIBILITIES

- Donation Accreditation (DA): perform DAT (polyspecific DAT on Galileo Neo) on IUT and WBPR units on request; refer samples with positive DAT to Reference Laboratory; receive and act on results.
- Blood Banks: if positive DAT is found during investigation of an incompatible crossmatch or TRI (Transfusion Reaction Investigation), perform DAT by Tube method using anti-IgG; and report positive results to relevant DA.
- Anyone receiving a message from a DHB Blood Bank about a unit with a positive DAT – follow section 6.3 'Positive DAT found by DHB Blood Bank and reported to NZBS'.
- Logistics staff: if required, arrange for refund for the DHB Blood Bank returning a unit with a positive DAT, to NZBS.
- Reference Laboratory: perform Tube DAT using anti-IgG on referred samples, and report results to relevant DA.
- The NZBS Medical Officer (MO): review test results; apply eProgesa deferrals; request follow-up tests at the next donation; communicate with the donor as required.

### 4. ITEMS REQUIRED

- Unit and/or EDTA sample tube from donation
- Anti-IgG antiglobulin reagent for tube technique

### 5. DOCUMENTS

#### 5.1 Required Documents

- 136M081 Direct Antiglobulin Tests - Tube Technique
- 136M123 Rejection and Destruction of Unusable Components and Products
- 140M314 Galileo Neo Management of Results
- 140F139 Clinically Significant Antibodies and Positive DATs Report
- 130M037 Manual Entry of Test Results into eProgesa
- 150M065 Discarding of Components Released Stock via 'Issue to Destruction Centre'

#### 5.2 Related Documents

- 140M139 Reporting Clinically Significant Red Cell Antibodies & Positive DATs to the Medical Officer

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### 6. PROCEDURE

#### 6.1 Positive DAT found in DA

- 6.1.1 Hold the donation:  
Download positive results from Neo to eProgesa (test code 3503). Ensure that the DAT positive result has added monospecific tests (test code 3504) as pending, to prevent labelling. The unit will remain on the manufacturing site until the DAT investigation is complete.
- 6.1.2 Refer to 140M314 for procedure and forms used to refer the unit for further investigation.
- 6.1.3 Assess the critical significance of the unit by checking with the requesting Blood Processing department. If the provision of the unit is critical and is difficult to replace, (e.g. IUT unit of rare phenotype) consult a NZBS MO.
- 6.1.4 For specially requested units: Refer to Reference Laboratory for urgent investigation. When results are received, continue from 6.5 'DA: Follow-up of donation'.

#### 6.2 Positive DAT found in Blood Bank

- 6.2.1 If the unit is in Blood Bank stock, ensure it is not issued until the DAT investigation is complete.
- 6.2.2 Perform DAT by tube, using anti-IgG (refer to 136M081).
- 6.2.3 If the Tube anti-IgG is negative (and the unit was in stock):
- Create and result a component test request.
  - Attach a luggage label or similar tag to the unit, indicating the negative anti-IgG DAT result.
  - Release the unit back into stock.
- 6.2.4 If the Tube anti-IgG is positive:
- If the unit was in stock, Ship it to the Destruction Centre, reason: '082 DAT Positive'. (refer to 136M123);
  - Notify the associated Donation Accreditation site using 140F139, completing fields for: 'Blood Bank testing performed at', Donation date, Donation number, Tube IgG result, testing date, name and signature.

#### 6.3 Positive DAT found by DHB Blood Bank and reported to NZBS

- 6.3.1 Request that the unit be tagged to indicate it has a positive DAT needing investigation and that it be returned to an NZBS hub site.
- 6.3.2 If the particular unit is considered too critical for the DHB Blood Bank to return, consult a NZBS MO for advice. The DHB Blood Bank may be able to perform DAT using anti-IgG, even if not by tube. (See section 6.2.3)
- 6.3.3 **Logistics department at the Hub site:** On receipt of the tagged unit, and if there are 7 days or less until the expiry date, e-mail [accounts.receivable@nzblood.co.nz](mailto:accounts.receivable@nzblood.co.nz) with details of the donation number, DHB and reason for the credit. If the unit has been returned to NZBS with more than 7 days to expiry, the unit will be automatically credited to the DHB and no further action is required.
- 6.3.4 Refer the unit to Reference Laboratory for investigation.

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### 6.4 DAT investigation by Reference Laboratory

On receipt of request for investigation of a positive DAT in a donation:

- 6.4.1 Perform a Tube DAT using anti-IgG, on the referred sample (refer to 136M081).  
Elution is not required, even if IgG is present on the cells, unless specifically requested for that donor by an NZBS MO.
- 6.4.2 Record results in eProgesa.
- Check the initial result has been recorded as test code 3503.
  - Record the Tube anti-IgG result as test code 3504, resulting only the anti-IgG (refer to 130M037).
- 6.4.3 Forward associated 140F139 to the relevant DA testing site.

### 6.5 DA: Follow-up of donation

- 6.5.1 Receive tube DAT results from Reference Laboratory or Blood Bank:
- 6.5.2 If the Tube anti-IgG on the unlabelled unit is negative:
- eProgesa will release the unit if all other requirements have been met.
- 6.5.3 If the Tube anti-IgG is positive:
- Complete 140F139, and forward it with attached results to NZBS MO responsible for the donation collection site, for donor follow-up.
  - If the unit was in Blood Bank stock, Blood Bank will have disposed of it.
  - If the unit is on site, notify the relevant Blood Processing laboratory to Issue it to the Destruction Centre ward 0COMP4 'Blood Component – DAT Positive' (refer to 150M065) and dispose of the unit safely.

### 6.6 MO: Follow-up of donor

- 6.6.1 Review the DAT results. If the Tube DAT using anti-IgG is positive, add a donor related comment to eProgesa requesting repeat DAT testing at next donation.
- 6.6.2 If the repeat DAT is negative, the donor may continue to donate.
- 6.6.3 If the repeat DAT is positive, defer the donor.

## 7. MINIMUM TRAINING REQUIREMENTS

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|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <ul style="list-style-type: none"> <li>• <b>Blood Bank copyholders:</b> Read section 6.2 about use of the label. Complete Document Sign-Off Sheet (108F060).</li> <li>• <b>Other copyholders:</b> No training or Document Sign-Off Sheet required. There have been no changes to your procedures.</li> </ul> |
| <input type="checkbox"/>            | Complete Document Sign-Off Sheet (108F060). <ul style="list-style-type: none"> <li>• Read and understand whole document</li> </ul>   |
| <input type="checkbox"/>            | Complete Document Sign-Off Sheet (108F060). <ul style="list-style-type: none"> <li>• Formal training required. Specify: <i>(enter details of formal training)</i></li> </ul>   |
| <input type="checkbox"/>            | Complete Training Module   |
| <input type="checkbox"/>            | No training or Document Sign-Off Sheet required.   |