MANAGEMENT OF DAT POSITIVE DONORS AND RED CELL COMPONENTS

REASONS FOR CHANGE: Changes for eTraceline: Blood Banks record DAT as component phenotype test and print phenotype label from eTraceline. Ship unit to Destruction.

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 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; refer samples with positive DAT to Reference Laboratory; receive and act on results.
- Blood Banks – if positive DAT is found during investigation of incompatible crossmatch or TRI, perform DAT by Tube 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 – arrange for refund for the DHB Blood Bank returning to NZBS a unit with a positive DAT.
- Reference Laboratory - perform Tube DAT using anti-IgG on requested 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
- Donation 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 Unusable Components and Products - Management and eTraceline Recording
- 140F113 Donor Samples Requiring Further Investigation
- 140F139 Clinically Significant Antibodies and Positive DATs Report
- 140M148 Manual Entry of Test Results
- 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
- 140M261 Direct Antiglobulin Testing of Red Cell Donations Destined for Exchange or Intrauterine Transfusion
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 as a consequence, the DAT positive result has caused monospecific tests (test code 3504) to be pending, to prevent labelling. The unit will therefore remain on the manufacturing site until the DAT investigation is complete.

6.1.2 Refer the sample for investigation:
Forward the EDTA sample and completed 140F113 to Reference Laboratory, requesting a DAT positive investigation.

6.1.3 Assess the critical significance of the unit by checking with the requesting Blood Processing department.
If the availability of the unit is critical and a replacement is difficult (e.g. IUT unit of rare phenotype) consult 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.
- Print the component phenotype label and attach it to the unit.
- 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, and testing date, name & 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. 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: On receipt of the unit, arrange for a refund if necessary. If the unit has been returned to NZBS with greater than 7 days to expiry then the unit will be automatically credited to the DHB. If there are 7 days or less then e-mail accounts.receivable@nzblood.co.nz with details of the donation number, DHB and reason for a credit.

6.3.4 Refer the unit to Reference Laboratory for investigation.
6.4 DAT investigation by Reference Laboratory
On receipt of 140F113 or other request for a DAT positive investigation:

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 140M148).

6.4.3 Report to the requesting DA 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 is negative:
- eProgesa will release the unit (if in stock) 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

- Read specified sections: Sections: (enter section numbers)

- Read and understand whole document

- Formal training required. Specify: (enter details of formal training)

☒ Complete Training Module – eTraceline (Blood Bank and Reference Laboratory)

☒ No training or Document Sign-Off Sheet required. There have been no changes to the responsibilities of the following copyholders:
- Donor Accreditation
- Logistics and Customer Services
- Clinical Compendium