MANAGEMENT OF DAT POSITIVE DONORS AND RED CELL COMPONENTS

REASON FOR CHANGE:

- **Add advice to tag a mono DAT negative unit to avoid using it for an IAT crossmatch – 5.3.3 (DCR37110).**
- **Add option for non-NZBS BBs to perform mono DAT tests – 5.4**
- **Clarify 140F139 needs to be forwarded to the MO for ALL positive mono DAT results. The MO will make the decision on donor follow up if C3+ only – section 5.6 and 5.7. Clarify difference in discarding unit when C3+ detected in BB rather than Reference Lab – 5.7.4. (DCR34463).**
- **Bullet point referring to notification of Processing lab moved from 5.7 (DA) to 5.6 (Ref Lab) as per 140M139 (DCR35764).**
- **New section on process for testing subsequent donations of positive mono DAT donors – 5.9 (DCR35937).**
- **Update DHB Blood Bank to non-NZBS Blood Bank**
- **Update title of 136M123 (DCR41391) and NEO reference from 140M314 to 140M334 (DCR42430).**

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

Follow-up of units and donors found to be DAT positive, whether detected during:

- routine donation accreditation of WBPR or IUT units in Donation Accreditation (DA),
- IAT crossmatching (Blood Bank (BB) or Reference Laboratory), or
- transfusion reaction investigation (BB or Reference Laboratory), or
- DAT testing subsequent donations following a positive DAT investigated on the previous donation.

MANAGEMENT OF DAT POSITIVE DONORS AND RED CELL COMPONENTS

3. KEY RESPONSIBILITIES

- Donation Accreditation (DA):
  - perform monospecific IgG DAT on NEO Iris on IUT and WBPR units on request;
  - refer samples with positive DAT to Reference Laboratory;
  - receive and action results by completing 140F139 Clinically Significant Antibodies and Positive DATs Report
- Blood Banks:
  - if a positive DAT is found during investigation of an incompatible crossmatch or TRI (Transfusion Reaction Investigation), perform monospecific DAT and report positive results to relevant DA.
- Anyone receiving a message from a non-NZBS Blood Bank about a unit with a positive DAT:
  - follow section 5.5 'Positive DAT found by non-NZBS Blood Bank and reported to NZBS'.
- Logistics staff:
  - If required, arrange for refund for the non-NZBS Blood Bank on return of a unit with a positive DAT.
- Reference Laboratory:
  - perform monospecific DAT 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. DOCUMENTS

4.1 Required Documents

- 136M123 Rejection, Destruction and Return to NZBS Supply Site of Unusable Components and Products
- 140M334 NEO Iris - 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'

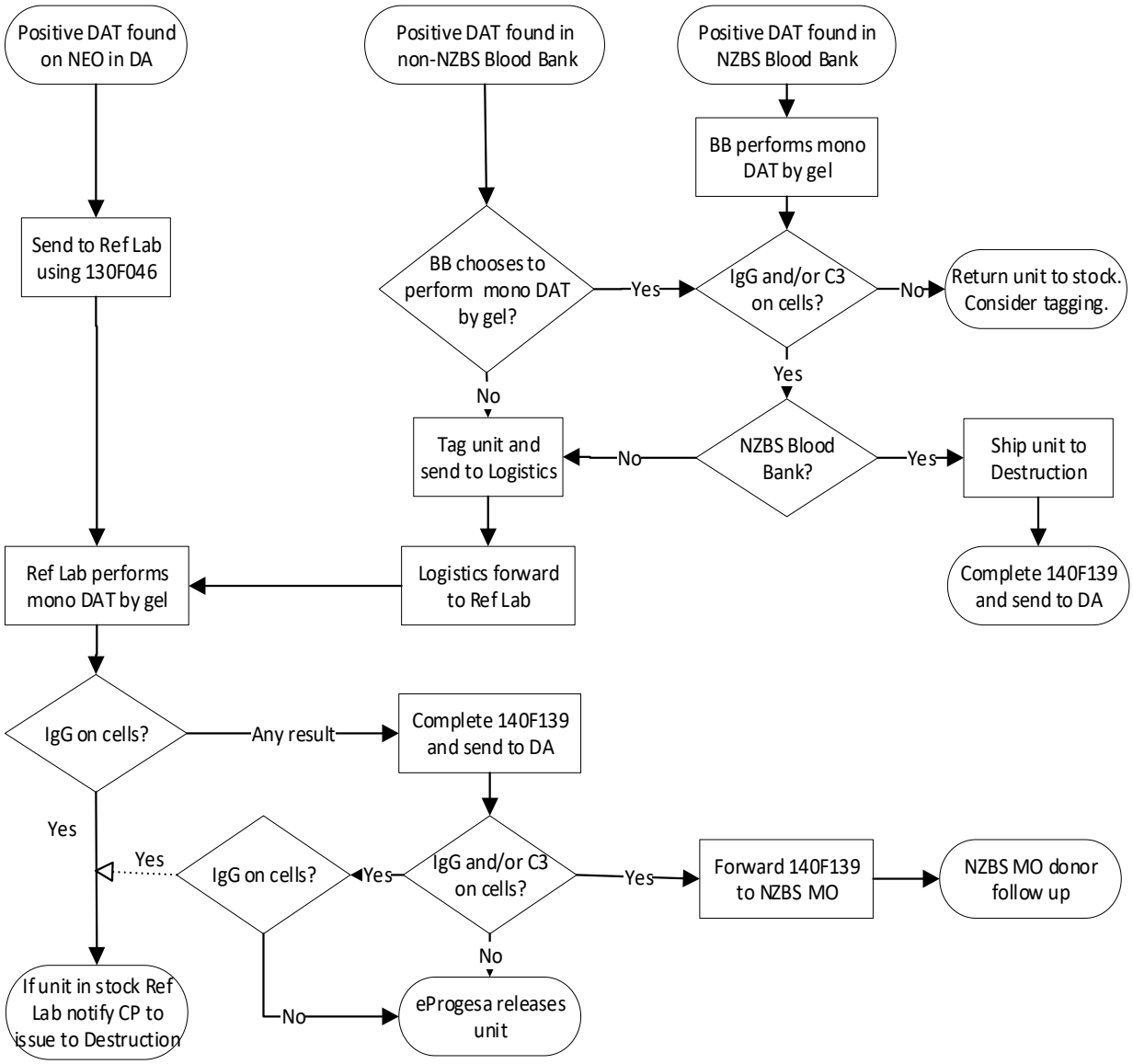
4.2 Related Documents

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

MANAGEMENT OF DAT POSITIVE DONORS AND RED CELL COMPONENTS

5. PROCEDURE

5.1 Overview of process



5.2 Positive DAT found in DA

5.2.1 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.

5.2.2 Refer to 140M334 for procedure and forms used to refer the unit for further investigation.

5.2.3 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.

5.2.4 For specially requested units: Refer to Reference Laboratory for urgent investigation. When results are received, continue from 5.7 'DA: Follow-up of donation'.

5.3 Positive DAT found in NZBS Blood Bank

5.3.1 Perform monospecific DAT (gel card) and record the results in eTraceline.

5.3.2 If either the anti-IgG or anti-C3 is positive and the unit is in stock, Ship it to the Destruction Centre, reason: '082 DAT Positive' (refer to 136M123), apply a Component Discard Label and dispose of the unit safely. Complete 140F139 and send it to the associated Donation Accreditation site. If destruction of the unit would cause difficulties in replacing it, consult a TMS.

5.3.3 If both anti-IgG and anti-C3 are negative, return the unit to stock.

- Consider tagging the unit to advise it is monospecific DAT negative so it can be issued electronically but not selected for IAT crossmatching.

5.4 Positive DAT found by non-NZBS Blood Bank

5.4.1 Optionally, the Blood Bank may choose to perform the mono DAT.

5.4.2 If both anti-IgG and anti-C3 are negative, record the results in eTraceline and return unit to stock.

- Consider tagging the unit to advise it is monospecific DAT negative so it can be issued electronically but not selected for IAT crossmatching.

5.4.3 If either anti-IgG or anti-C3 is positive, or if mono DAT testing has not been completed by Blood Bank, report to NZBS (see next section for steps by NZBS).

5.5 Positive DAT found by non-NZBS Blood Bank and reported to NZBS – follow up by NZBS

5.5.1 Request the Blood Bank tag the unit to indicate it has a positive DAT needing investigation and that it be returned to an NZBS supply site.

If the particular unit is considered too critical for the non-NZBS Blood Bank to return, consult a NZBS MO for advice.

5.5.2 **Logistics department at the NZBS supply site**: On receipt of the tagged unit, check expiry and if there are 7 days or less until the expiry date, e-mail accounts.receivable@nzblood.co.nz with details of the donation number, Blood Bank site and reason for the credit. If the tagged unit has been returned to NZBS with more than 7 days to expiry, the unit will be automatically credited to the relevant site and no further action will be required.

5.5.3 Refer the unit to Reference Laboratory for investigation.

5.6 DAT investigation by Reference Laboratory

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

5.6.1 Perform monospecific DAT (gel card).

Elution is not required, even if IgG is present on the cells, unless specifically requested by an NZBS MO.

5.6.2 Record results in eProgesa.

- Check the initial result has been recorded as test code 3503.
- Record the monospecific DAT results as test code 3504 (refer to 130M037).

5.6.3 Complete 140F139 for all results, and forward it to the relevant DA testing site.

5.6.4 If the IgG is positive:

- 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.
- If the unit was in Blood Bank stock, Blood Bank will have disposed of it and sent to Destruction Centre in eTraceline.

5.7 DA: Follow-up of donation

5.7.1 Receive monospecific DAT results from Reference Laboratory or Blood Bank on 140F139.

5.7.2 If the IgG on an unlabelled unit is negative:

- eProgesa will release the unit if all other requirements have been met.

5.7.3 If the anti-IgG (+/- C3) is positive:

- Complete 140F139, and forward it with attached results to NZBS MO responsible for the donation collection site, for donor follow-up.

5.7.4 If anti-C3 **only** is positive:

- Complete 140F139 and forward it with attached results to NZBS MO responsible for the donation collection site, who will assess whether follow up of the donor is required.
- eProgesa will release the unit if all other requirements have been met.
- Although the instructions for Blood Banks are to discard units found to be C3 positive only (refer to 5.3.2), it is acceptable to release these units from the supply site with no clinical implications. Most likely these will be issued electronically and no further action will be required.

5.8 MO: Follow-up of donor

5.8.1 Review the DAT results. If the DAT using anti-IgG is positive, add a donor related comment to eProgesa requesting repeat DAT testing at next donation. If the DAT is C3 only positive, consider if any follow up is required, and record in eProgesa accordingly.

5.8.2 If the repeat DAT is negative, the donor may continue to donate.

5.8.3 If the repeat DAT is positive, defer the donor.

5.9 Follow up of next donation

5.9.1 If the NZBS MO has requested follow up DAT testing at the next donation DA will request and perform a DAT.

5.9.2 If the DAT is positive 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.

5.9.3 Refer to 140M334 for procedure and forms used to refer the unit for further investigation.

5.9.4 When results are received complete 140F139, and forward it with attached results to NZBS MO responsible for the donation collection site.

6. MINIMUM TRAINING REQUIREMENTS

☒	**Complete Document Sign-Off Sheet (108F060).** • Read specified sections: Sections: 5.3.3, 5.4, 5.6.3, 5.9
☐	Complete Document Sign-Off Sheet (108F060). • Read and understand whole document
☐	Complete Document Sign-Off Sheet (108F060). • Formal training required. Specify: *(enter details of formal training)*
☐	Complete Training Module
☐	No training or Document Sign-Off Sheet required.