



# **SAMPLE COLLECTION MANUAL**

NZBS Blood Banks and  
NZBS Reference Laboratory

**July 2012**

---

# SAMPLE COLLECTION MANUAL

## NZBS Blood Banks and Reference Laboratory

<b>SECTION 1. INTRODUCTION</b>	<b>3</b>
<b>SECTION 2. PRETRANSFUSION TESTING</b>	<b>3</b>
2.1 COMPLETION OF REQUEST FORM .....	3
2.2 SAMPLE COLLECTION .....	4
2.3 SAMPLE LABELLING .....	5
2.4 LABELLING CHECKS BY BLOOD BANK AND SAMPLE REJECTION .....	5
2.5 EMERGENCY SITUATIONS .....	6
2.6 SAMPLE VALIDITY .....	7
<b>SECTION 3. DIAGNOSTIC TESTING</b>	<b>8</b>
3.1 INTRODUCTION .....	8
3.2 COMPLETION OF REQUEST FORM FOR DIAGNOSTIC TESTING .....	8
3.3 SAMPLE LABELLING FOR DIAGNOSTIC TESTING .....	8
3.4 CORD BLOOD REQUEST FORM AND SAMPLE LABELLING .....	8
3.5 DIAGNOSTIC SAMPLE REQUIREMENTS .....	9
3.6 DIAGNOSTIC TESTS AVAILABLE .....	9
<b>SECTION 4. GENERAL INFORMATION</b>	<b>10</b>
4.1 DEVIATION FROM NZBS LABELLING REQUIREMENTS .....	10
4.2 SAMPLE VOLUMES .....	10
4.3 PREFERRED SAMPLE .....	10
4.4 TURN-AROUND-TIMES (TATs) .....	10
4.5 ADDITIONAL TESTING .....	10
4.6 HANDLING AND TRANSPORT OF SAMPLES .....	11
4.7 CLINICAL ADVICE .....	11
4.8 TECHNICAL ADVICE .....	11
<b>SECTION 5. SPECIFIC TEST INFORMATION</b>	<b>12</b>
ABO Rh (D) Group .....	12
Group and Screen (Pretransfusion) .....	13
Group and Screen (Antenatal) .....	14
Red Cell Antibody Identification .....	15
Antenatal Antibody Titration .....	16
Cord Blood Testing .....	17
Direct Antiglobulin Test (DAT) .....	18
Transfusion Reaction Investigation .....	19
Transfusion Reaction to Fractionated Blood Products .....	20
Cold Autoagglutinin Screen and Titre .....	21
Autoimmune Haemolytic Anaemia Screen .....	22
Drug Induced Haemolytic Anaemia Investigations .....	23
Blood Group Genotyping .....	24
<b>SECTION 6. HOURS OF OPERATION AND CONTACT DETAILS</b>	<b>25</b>
<b>SECTION 7. REFERENCES</b>	<b>26</b>

Authors: **John Dagger, Technical Advisor, NZBS**  
**Anne Burnand, Technical Support Officer, NZBS**

Document No: **136112002**  
 Issue Date: **July 2012**

# SAMPLE COLLECTION MANUAL

## NZBS Blood Banks and Reference Laboratory

**INTENDED AUDIENCE:** Customers of NZBS Blood Banks and Reference Laboratory, in particular those who refer samples to these services. They may include DHB and private laboratories; clinical specialists and midwives; other NZBS Blood Banks and departments.

### SECTION 1. INTRODUCTION

It is important to distinguish the reason for the Blood Bank or Reference Laboratory request, as sample collection and labelling requirements differ.

**For pretransfusion testing** collection and labelling requirements, refer Section 2.

**For diagnostic testing** labelling requirements, refer Section 3.

Also refer **Deviation from NZBS Labelling Requirements**, Section 4.1.

### SECTION 2. PRETRANSFUSION TESTING

#### **IMPORTANT:**

**It is not possible to over-emphasise the importance of proper patient identification. Most errors relating to transfusion practice arise from administrative and clerical error. These errors can have serious consequences for patients and are sometimes fatal.**

#### 2.1 COMPLETION OF REQUEST FORM

The New Zealand Blood Service (NZBS) request form "Request for Blood Bank Tests & Blood Components or Products" - 111F018, outlines the essential requirements for ordering tests, components or products.

Full and accurate completion of the request form is essential for ensuring that the right test or quantity of blood component or product, is available at the right place at the right time.

Patient details must be recorded on the form using legible handwriting or computer generated labels.

The request form **MUST** contain the following patient information:

- Patient's registered family name and given names (unabbreviated)
- Hospital number (NHI) and/or date of birth (both preferred)
- Gender
- Name of requesting practitioner (\*see note below about midwives)
- Signature of the person completing the request form. This may be a nurse on behalf of the requesting doctor.
- Details of tests required and/or indication of the quantity and time that blood components or products are required (such as date and type of planned surgery)
- Any special requirements for components e.g. irradiated
- Signed declaration by the collector confirming that the patient was positively identified at the time of collection and that the samples were labelled before leaving the patient
- Date and time of collection of blood sample

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

\* **Midwives:** Blood components and products are defined in New Zealand law as medicines, and may only be prescribed by a registered medical practitioner within their scope of practice. This generally means that although midwives may prescribe some blood products, such as Rh (D) Immunoglobulin, which form part of the care of a normal pregnancy, only a doctor is authorised to prescribe blood components such as red cells. However, a midwife may be the requesting practitioner of a Group and Screen request, on the understanding that if the patient does require a blood transfusion, an appropriately authorised practitioner, usually a doctor, will prescribe (“chart”) the blood transfusion.

The request form **should** also include:

- Clinical diagnosis and indication for transfusion
- Record of any known red cell antibodies, previous transfusions or pregnancy within the last 3 months
- Patient’s location
- Date of surgical procedure (if applicable)

## 2.2 SAMPLE COLLECTION

**Correctly identifying the patient before collection of the blood sample is essential.**

- If the patient is in hospital and does not have a wristband, ask the ward staff to apply one before collecting the sample.
- **At the time of sample collection** ask the patient to state (if able) their family name, given names and date of birth.
- **If a wristband is not provided** (e.g. in outpatient setting) ask the patient to state **and spell** (if able) their family name, given names and date of birth.
- **In an extreme emergency** a patient number alone may be used. This number must be copied from the patient's wristband.
- In the case of an **unconscious patient or person unable to comply with the request for information**, copy the patient identification details from the patient's wristband, and if possible confirm with a relative.

**Check all the information supplied** (by patient or relative, on wristband and on request form) to ensure they match. **DO NOT** proceed with sample collection if there are discrepancies.

### Notes:

- The patient’s identity must be re-established if the collector leaves the patient’s location prior to initiating the blood collection procedure.
- Blood samples must not be obtained from the tubing of an intravenous set or drawn from a vein in which an intravenous solution is being infused.
- If blood samples are collected from an anticoagulated catheter a volume of blood approximately twice the fluid volume in the line should be withdrawn and discarded before collecting the Blood Bank sample.

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

#### 2.3 SAMPLE LABELLING

##### **IMPORTANT:**

**Sample tubes must not be labelled in advance of the sample collection.**

**The sample tubes must be accurately labelled BEFORE leaving the patient.**

**DO NOT copy patient details from the patient's notes or charts.**

**DO NOT apply a computer generated label to the sample.**

Legible hand written patient details must be recorded on the sample tube(s) with indelible pen.

Details must include:

- Patient's registered family name and given names (unabbreviated)
- Hospital number (NHI) or date of birth (both preferred)
- Date and time of collection
- Signature or initials of the collector

Following sample labelling

- Check the request form and the sample tube have identical patient information.
- Complete the section of the request form headed Specimen Collector Declaration with the time and date, your name and signature.

#### 2.4 LABELLING CHECKS BY BLOOD BANK AND SAMPLE REJECTION

The labelling of samples and forms is checked on receipt of samples in Blood Bank. If it does not meet the identified labelling requirements, the Blood Bank will do the following:

- In the case of minor discrepancies, Blood Bank may contact the ward and ask the person who collected the sample to make the correction and where possible, come to Blood Bank to do so. The collector must sign a form declaring they take full responsibility for changes made to either the form or sample labelling.
- If the collector is unavailable or in the case of major discrepancies, Blood Bank will request a new sample and request form, and discard the original sample (refer next section Sample Rejection).

##### **SAMPLE REJECTION**

Blood Bank staff are not authorised to accept samples which fail to meet the required standard.

**Samples will be rejected in the following circumstances and new request forms and samples will be requested.**

- Patient's name, hospital number (NHI) or date of birth on the request form and sample differ
- Signature or initials of the collector on the sample are different from those on the Specimen Collector Declaration section of the request form
- Signature of collector missing from both the sample and declaration section of the request form
- Unlabelled form
- Unlabelled sample
- Insufficient sample volume or incorrect sample tube – for requirements refer Section 5

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

- Sample unsuitable for testing e.g. gross haemolysis
- Prolonged delay between sample collection and receipt in Blood Bank
- Samples showing visible evidence of breakage or leakage
- Samples labelled with computer generated labels
- Minor labelling discrepancies unable to be corrected by the Sample Collector
- Discrepancies still unresolved 24 hours after receipt of the request form and sample

The patient care area will be informed if the sample is going to be rejected. If the request is urgent the requesting practitioner will be informed directly.

In a critical situation, emergency group O Rh(D) negative red cells can be issued until a new sample is received, testing is complete and compatible blood can be provided.

**Where a dispute arises in relation to a sample the final decision on suitability for testing will lie with an NZBS Medical Officer.**

## 2.5 EMERGENCY SITUATIONS

In emergency situations a sample can be accepted if both the form and sample contain an emergency code, or pre-allocated NHI number, or family name and hospital number (NHI). The emergency code or NHI number must be used to identify the patient until full and correct details are available and a properly identified sample has been tested.

If the need for components is urgent, telephone the Blood Bank in advance of collection of blood components from Blood Bank.

The Blood Bank will require the following information:

- Patient's identification (the same as supplied on sample and form)
- Patient's location
- Number and type of components required

Group O Rh(D) negative red cell units are available for immediate issue for a patient. There is still a requirement to submit a sample for testing, so that compatibility of transfused units can be confirmed and appropriate action taken if the antibody screen is positive.

In an emergency full testing may not be able to be performed before the issue of blood. As a guide the following applies –

Time interval (guide)	Tests Completed	Units Supplied
<b>0 – 10mins</b>	<b>None</b>	Emergency <b>O Rh(D) Negative</b> blood and occasionally <b>O Rh(D) Positive</b> for males only
<b>15 – 30mins</b>	<b>Blood Grouping only</b>	ABO and Rh(D) <b>group-compatible</b> uncrossmatched blood
<b>45 mins</b>	<b>Blood Group and Antibody Screen</b> - Antibody screen negative	Compatible blood

**SAMPLE COLLECTION MANUAL**  
**NZBS Blood Banks and Reference Laboratory**

Time interval (guide)	Tests Completed	Units Supplied
1 ½ hrs	<b>Blood Group and Antibody Screen</b> - Antibody screen positive or history of antibody	Compatible blood. This will depend on the antibody identified and the availability of compatible units

## 2.6 SAMPLE VALIDITY

Samples from patients for red cell transfusion are valid for 72 hours, 7 days, or 21 days depending on transfusion history, pregnancy and information supplied on the request form.

Clinical Situation	Sample Validity Time
<ul style="list-style-type: none"> <li>• Patient transfused with red cell or platelet components, or allogeneic HPC (Haematopoietic Progenitor Cells) in the last 3 months</li> </ul>	<ul style="list-style-type: none"> <li>• Transfusion of each unit must commence within 72 hours of the sample being taken</li> </ul>
<ul style="list-style-type: none"> <li>• Patient is pregnant or has been pregnant within the last 3 months</li> </ul>	<ul style="list-style-type: none"> <li>• Transfusion of each unit must commence within 72 hours of the sample being taken</li> </ul>
<ul style="list-style-type: none"> <li>• Request form does not clearly exclude transfusion or pregnancy within the last 3 months i.e. history section of form not completed</li> </ul>	<ul style="list-style-type: none"> <li>• Transfusion of each unit must commence within 72 hours of the sample being taken</li> </ul>
<ul style="list-style-type: none"> <li>• Request form clearly excludes a history of transfusion, current pregnancy and pregnancy within the last 3 months.</li> </ul>	<ul style="list-style-type: none"> <li>• Sample valid for 7 days but only 72 hours after transfusion of the first unit has commenced.</li> </ul>
<ul style="list-style-type: none"> <li>• Elective procedure, where the request form clearly excludes a history of transfusion, current pregnancy and pregnancy within the past 3 months, and clearly indicates the predicted date of blood transfusion is more than 7 days after sample collection.</li> </ul>	<ul style="list-style-type: none"> <li>• On request, the sample may be valid for up to 21 days but only 72 hours after transfusion of the first unit has commenced.</li> </ul>

If unsure of the validity that will be applied in a specific scenario, contact the local Blood Bank for advice. For contact information refer to internal hospital directories or Section 6 of this manual.

## **SECTION 3. DIAGNOSTIC TESTING**

### **3.1 INTRODUCTION**

Diagnostic samples are samples that are **not for pretransfusion testing**, but are tested to assist diagnosis and monitoring in a variety of clinical scenarios. Examples include -

- Antenatal screening and monitoring
- Cord blood investigation
- Autoimmune haemolytic anaemia investigation

### **3.2 COMPLETION OF REQUEST FORM FOR DIAGNOSTIC TESTING**

A request form must be provided with every sample for diagnostic testing. The request form must be legible – either in hand-writing or a computer generated label.

The request form must clearly identify the patient and should include the following:

- Patient's registered family name and given names (unabbreviated)
- Patient's NHI number and/or date of birth
- Name or other identifier of the person requesting the tests
- Point of origin and/or address for report
- Details of testing required
- Relevant clinical information
- Date and time of sample collection
- Identity and/or signature of sample collector

For Cord Blood Request form requirements refer Section 3.4.

### **3.3 SAMPLE LABELLING FOR DIAGNOSTIC TESTING**

Although hand-labelled samples are preferred, computer generated labels are also acceptable on diagnostic samples. Labelling on the samples must be adequate to match the sample with the request form.

Sample labelling should include:

- Patient's family name and given names (unabbreviated)
- Patient's NHI and/or date of birth
- Date and time of sample collection
- Identity and/or signature of sample collector

For Cord blood sample labelling refer Section 3.4.

### **3.4 CORD BLOOD REQUEST FORM AND SAMPLE LABELLING**

The request form for cord blood testing should carry the mother's given name and mother's family name, and identify the patient as "baby of".

All other request form requirements are as above (Section 3.2).

Cord blood sample labelling must be adequate to match the sample with the request.

## **SAMPLE COLLECTION MANUAL**

### **NZBS Blood Banks and Reference Laboratory**

---

Sample labelling should include:

- An indication that the sample was taken from “baby of”.
- Mother’s family name. (Baby’s family name may also be included.)
- Mother’s given name
- Baby’s NHI and/or date of birth
- Date and time of sample collection
- Identity and/or signature of phlebotomist.

If the baby has a name of its own, this may be included on form and/or sample but should be in addition to, not instead of, the mother’s name.

### **3.5 DIAGNOSTIC SAMPLE REQUIREMENTS**

- Samples should not be more than 24 hours old on receipt. At the discretion of NZBS, testing may be carried out on samples up to one week from collection but this will depend on the test requested and sample handling and storage in the interval. Any concerns about the suitability of the sample will be discussed with the referrer and recorded in the test report.
- Samples which show obvious signs of bacterial contamination such as purplish discolouration or odour are not suitable for testing. A repeat sample will be requested.
- Pre-separated samples must be clearly identified, with all aliquots traceable to the original (i.e. primary) sample.
- NZBS may reject any sample or request that does not comply with NZBS requirements. The referrer will be notified.

### **3.6 DIAGNOSTIC TESTS AVAILABLE**

The diagnostic tests available within the NZBS Blood Banks and Reference Laboratory are detailed in Section 5. Specific Test Information.

Any enquiries about additional testing should be directed to the site to whom your samples are normally referred.

## **SECTION 4. GENERAL INFORMATION**

---

### **4.1 DEVIATION FROM NZBS LABELLING REQUIREMENTS**

For reasons of patient safety NZBS strongly recommend compliance with the sample and form labelling requirements as described in Sections 2 and 3 of this Manual. These requirements are based upon recommendations in international standards, which are likely to become mandatory over time. It is recognised however, that some referrers are yet to adopt these requirements at their own sites. Acceptance of samples non-compliant with NZBS requirements will depend on the seriousness of the non-compliance. Any decision to reject the sample will only occur after consultation with the referrer.

### **4.2 SAMPLE VOLUMES**

For optimal sample volumes refer to Section 5 Specific Test Information. Where possible these volumes should be adhered to, but if collection is particularly difficult contact the Blood Bank or Reference Laboratory for advice on the minimum volumes required for testing.

### **4.3 PREFERRED SAMPLE**

The preferred sample for testing by NZBS Blood Banks and Reference Laboratory is whole blood collected in EDTA anticoagulated sample tubes. This is a mandatory requirement for testing on automated equipment and is the optimum sample for some testing (e.g. DAT). Serum (or clotted samples) may be acceptable for some testing and will be considered on a case by case basis. Any decision to reject the sample will only occur after consultation with the referrer.

### **4.4 TURN-AROUND-TIMES (TATs)**

Estimated turn-around-times for testing are recorded in Section 5. Specific Test Information.

On many occasions the results will be available earlier than the times stated and on occasions it could take longer, depending on the urgency and complexity of the work undertaken. If a result is required urgently requestors are advised to check the electronic link to Blood Bank systems where available. If unavailable, please contact the Blood Bank or Reference Laboratory directly.

### **4.5 ADDITIONAL TESTING**

On occasions Blood Banks and Reference Laboratory will perform extra testing as a follow-up of preliminary results (e.g. eluates on samples with positive DAT, antibody identification on samples with positive antibody screen, titrations on antenatal samples).

Samples are usually held by Blood Banks and Reference Laboratory for up to 7 days after collection. Referrers can request additional testing on these samples. Contact the Blood Bank or Reference Laboratory to check for availability and suitability of any samples held.

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

#### 4.6 HANDLING AND TRANSPORT OF SAMPLES

To protect the safety of the healthcare workers, local hospital policies and the following precautions for the transportation of samples must be followed:

- Do not contaminate the outside of the sample tube.
- Do not submit contaminated laboratory request forms.
- Use leak-proof containers and plastic “mini-grip” transport bags that have a separate outside compartment for the test request form.
- The use of the pneumatic tube delivery system for delivery of samples to the Blood Bank must conform to local hospital policy.
- Samples collected and transported to the Blood Bank or Reference Laboratory within 24hrs of collection can be transported at room temperature. For periods beyond this it is recommended that samples are transported in an insulated container with an icepack. Do not place the sample directly onto the icepack.
- Samples referred for pre-transfusion testing from one laboratory to another (or one department to another), must be left unseparated. Samples referred to Reference Laboratory may be an exception. Consult Reference Laboratory if uncertain.
- Samples couriered to the laboratory from locations outside of the hospital complex must be packaged according to IATA Packing Instruction 650 for Diagnostic Specimens.

#### 4.7 CLINICAL ADVICE

Advice on transfusion support and management of patients or interpretation of test results can be obtained from an NZBS Medical Officer. The local Blood Bank can provide contact details about this 24 hour service.

Clinical information is also available in the NZBS Transfusion Medicine handbook. Copies can be obtained from the Transfusion Nurse Specialist (contact through the Blood Bank). A copy of the Handbook is also available on the NZBS web-site [www.nzblood.co.nz](http://www.nzblood.co.nz)

#### 4.8 TECHNICAL ADVICE

Advice on sample requirements and test procedures can be obtained from the local NZBS Blood Bank or Reference Laboratory. For contact information refer to internal hospital directories or Section 6 of this manual.

**SAMPLE COLLECTION MANUAL**  
**NZBS Blood Banks and Reference Laboratory**

**SECTION 5. SPECIFIC TEST INFORMATION**

<b>TEST NAME</b>	<b>ABO Rh (D) Group</b>
<b>SYNONYMS</b>	Blood Group, ABO and Rh Group, ABO and D Type
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	6 mL EDTA pink top crossmatch blood collection tube Pink top EDTA microtainer may be used for young children and infants Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube.
<b>Normal Volume</b>	6 mL
<b>Minimum Volume</b>	3 mL or 500uL (microtainer only)
<b>Method of Collection</b>	Venepuncture (preferred) or micro-collect
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" - 111F018 or Local laboratory request form
<b>Collection Instructions</b>	Pretransfusion testing refer Section 2.2 Samples for pre-transfusion testing cannot be split for use by other laboratories
<b>Labelling Information</b>	Pretransfusion testing refer Section 2.1 and 2.3 Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	NZBS Auckland, Waikato, Wellington, Christchurch - 24/7 NZBS Manawatu, Dunedin and Reference Laboratory - refer Hours of Operation, section 6
<b>Turn-around time</b>	4 hours
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Not applicable
<b>Test Usage</b>	Antenatal testing; Pretransfusion testing Usually done in conjunction with an antibody screen Also see Group and Screen (Pretransfusion or Antenatal) elsewhere in Section 5.
<b>Test Limitations</b>	Blood groups may be indeterminate for a period following a HPC (stem cell) transplant or large volume transfusion of blood, from a donor of a different ABO Rh (D) group.
<b>Test Methodology</b>	Haemagglutination techniques – tube and/or column agglutination technology
<b>Reference Range</b>	Not applicable
<b>Additional Information</b>	Not applicable

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Group and Screen (Pretransfusion)</b>
<b>SYNONYMS</b>	ABO Rh (D) Group and Antibody Screen for Red Cell Transfusion, Group and Hold, Crossmatch Request, Pretransfusion Testing, Request for Blood Components or Products
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	6 mL EDTA pink top crossmatch blood collection tube Pink top EDTA microtainer may be used for young children and infants Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube.
<b>Normal Volume</b>	6 mL
<b>Minimum Volume</b>	3 mL or 500uL (microtainer only)
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018
<b>Collection Instructions</b>	Pretransfusion testing refer Section 2.2 Samples for pre-transfusion testing cannot be split for use by other laboratories
<b>Labelling Information</b>	Pretransfusion testing refer Section 2.1 and 2.3
<b>Testing Schedule</b>	NZBS Auckland, Waikato, Wellington, Christchurch - 24/7 NZBS Manawatu, Dunedin and Reference Laboratory - refer Hours of Operation, section 6
<b>Turn-around time</b>	4 hours <b>Contact Blood Bank if urgent issue of red cells is required.</b>
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Test performed in previous 72hrs, unless further sample requested by NZBS Blood Bank
<b>Test Usage</b>	Provision of compatible red cell components for transfusion
<b>Test Limitations</b>	Sample may be collected no earlier than 72 hours prior to transfusion if the patient has been transfused or pregnant within the past three months Antibodies may be too weak to be detected and/or identified Antibodies to low frequency antigens may not be detected
<b>Test Methodology</b>	Haemagglutination techniques – tube and/or column agglutination technology
<b>Reference Range</b>	Negative antibody screen
<b>Additional Information</b>	If the antibody screen is positive, antibody identification will be performed. Refer Red Cell Antibody Identification elsewhere in Section 5.

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Group and Screen (Antenatal)</b>
<b>SYNONYMS</b>	Antenatal Testing; Antenatal Group and Screen
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	6 mL EDTA pink top crossmatch blood collection tube Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube.
<b>Normal Volume</b>	6 mL
<b>Minimum Volume</b>	6 mL
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018 or Local laboratory request form
<b>Labelling Information</b>	Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	Monday – Friday (0800 hrs – 1600 hrs)
<b>Turn-around time</b>	24 hours
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Not applicable
<b>Test Usage</b>	To identify women at risk of having babies affected by haemolytic disease of the newborn and to predict risk to fetus To expedite the provision of blood in cases of obstetric haemorrhage To identify candidates for Rh (D) immunoglobulin
<b>Test Limitations</b>	Will not detect all maternal-fetal incompatibilities particularly those to low-incidence antigens Antibodies may be too weak to be detected and/or identified
<b>Test Methodology</b>	Haemagglutination techniques – tube and/or column agglutination technology
<b>Reference Range</b>	Negative antibody screen
<b>Additional Information</b>	If the antibody screen is positive, antibody identification will be performed. If clinically significant, antibody titration will also be performed.

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Red Cell Antibody Identification</b>
<b>SYNONYMS</b>	Antibody Identification, Antibody Investigation
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	6 mL EDTA pink top crossmatch blood collection tube Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube.
<b>Normal Volume</b>	6 mL
<b>Minimum Volume</b>	6 mL
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018 or Local laboratory request form
<b>Collection Instructions</b>	Pretransfusion testing refer Section 2.2 Samples for pre-transfusion testing cannot be split for use by other laboratories
<b>Labelling Information</b>	Pretransfusion testing refer Section 2.1 and 2.3 Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	NZBS Auckland, Waikato, Wellington, Christchurch - 24/7 NZBS Manawatu, Dunedin and Reference Laboratory - refer Hours of Operation, section 6
<b>Turn-around time</b>	8 hours
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Not required if red cell antibody screen negative
<b>Test Usage</b>	Performed on patients who have a positive antibody screening test to identify the detected antibody(ies) Identification of antibody specificity is required prior to the issue of red cells for transfusion To identify causative antibody in women at risk of having babies affected by haemolytic disease of the newborn and to predict risk to fetus
<b>Test Limitations</b>	Antibodies may be too weak to be detected and/or identified Antibodies to low frequency antigens may not be detected
<b>Test Methodology</b>	Haemagglutination techniques - tube and/or column agglutination technology
<b>Reference Range</b>	Not applicable
<b>Additional Information</b>	The requestor will be notified if antibody investigation is likely to cause a delay in the provision of compatible blood Additional blood samples may be required from the patient to enable full investigations to be carried out

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Antenatal Antibody Titration</b>
<b>SYNONYMS</b>	Antibody Titre
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	6 mL EDTA pink top crossmatch blood collection tube Note : After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube.
<b>Normal Volume</b>	6 mL
<b>Minimum Volume</b>	6 mL
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018 or Local laboratory request form
<b>Labelling Information</b>	Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	Monday – Friday (0800 hrs – 1600 hrs)
<b>Turn-around time</b>	24 hours
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Test is not indicated if the patient has a negative antibody screening test <i>or</i> antibody identified is not implicated in haemolytic disease of the newborn <i>or</i> antibody is determined to be IgM
<b>Test Usage</b>	To monitor antibody formation in cases of maternal-fetal incompatibility and indicate need for fetal monitoring
<b>Test Limitations</b>	Qualitative test Titres do not always reflect the condition of an unborn child
<b>Test Methodology</b>	Indirect antiglobulin technique (tube) Previous samples titrated in parallel with the current sample (when available)
<b>Reference Range</b>	Not applicable
<b>Additional Information</b>	If a clinically significant antibody is detected the titre should be monitored regularly. The recommended monitoring frequency will be reported with the titre result.

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Cord Blood Testing</b>
<b>SYNONYMS</b>	Neonatal Group and DAT, Direct Antiglobulin Test, Newborn Blood Group and Coombs Test
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	4mL or 6 mL EDTA pink top crossmatch blood collection tube containing Cord Blood Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube.
<b>Normal Volume</b>	4 - 6 mL
<b>Minimum Volume</b>	2 mL
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018 Local laboratory request form
<b>Collection Instructions</b>	Confirm identification of mother before sample collection Collect sample by venepuncture (not cutting the cord) Label sample as "Baby of (mother's name)" Submit cord blood samples for testing well within 72hrs of birth, to allow for timely administration of Rh(D) Immunoglobulin to eligible Rh(D) negative mothers
<b>Labelling Information</b>	Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	NZBS Auckland, Waikato, Wellington, Christchurch - 24/7 NZBS Manawatu, Dunedin and Reference Laboratory - refer Hours of Operation, section 6
<b>Turn-around time</b>	8 hours
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Not applicable
<b>Test Usage</b>	To assist in determination of eligibility of mother for Rh (D) Immunoglobulin administration To diagnose haemolytic disease of the newborn
<b>Test Limitations</b>	Strong DAT positive results can mask the red cell Rh (D) type Contamination of badly collected cord blood sample with Wharton's Jelly can cause false positive results
<b>Test Methodology</b>	Haemagglutination techniques - tube and/or column agglutination technology
<b>Reference Range</b>	DAT negative
<b>Additional Information</b>	A test will be performed to detect maternal blood contamination. If present, a sample from the baby will be requested Other tests performed depend on mother's ABO Rh (D) blood group and may include: ABO Rh (D) group Direct antiglobulin test (DAT) Antibody elution if DAT is positive in cases of haemolytic disease of the newborn. Tests for ABO incompatibility are only performed where hospital protocol requires it. Cord blood samples are unsuitable for pretransfusion testing

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Direct Antiglobulin Test (DAT)</b>
<b>SYNONYMS</b>	Direct Coombs Test
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	6 mL EDTA pink top crossmatch blood collection tube Pink top EDTA microtainer may be used for young children and infants Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube.
<b>Normal Volume</b>	6 mL
<b>Minimum Volume</b>	2 mL
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018 Local laboratory request form
<b>Labelling Information</b>	Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	NZBS Auckland, Waikato, Wellington, Christchurch - 24/7 NZBS Manawatu, Dunedin and Reference Laboratory - refer Hours of Operation, section 6.
<b>Turn-around time</b>	4 hours
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Not applicable
<b>Test Usage</b>	To detect red cell bound IgG and or complement. Causes of a positive DAT include: Warm auto-immune haemolytic anaemia Drugs Haemolytic transfusion reaction Cold agglutinin disease Haemolytic disease of the newborn
<b>Test Limitations</b>	Use of clotted blood samples or serum separator tubes may cause false positive reactions.
<b>Test Methodology</b>	Haemagglutination techniques - tube and/or column agglutination technology Polyspecific and/or monospecific antiglobulin reagent
<b>Reference Range</b>	Negative
<b>Additional Information</b>	If the DAT polyspecific test is positive, DAT monospecific testing is usually performed

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Transfusion Reaction Investigation</b> Investigation of Adverse Transfusion Reaction; Transfusion Reaction to Red Cell, Platelet, Fresh Frozen Plasma and Cryoprecipitate Components
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	6 mL EDTA pink top crossmatch blood collection tube Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube. 7 or 10 mL clotted blood sample Implicated blood component with IV set attached
<b>Method of Collection</b>	Venepuncture - collected away from site of transfusion
<b>Request Tests on Form</b>	NZBS form "Transfusion-related Adverse Reaction Notification Form" – 111F009. On the reverse side of this form are guidelines for the management of adverse transfusion reactions
<b>Collection Instructions</b>	Pretransfusion testing refer Sections 2.2 Samples for pre-transfusion testing cannot be split for use by other laboratories
<b>Labelling Information</b>	Pretransfusion testing refer Section 2.1 and 2.3 Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	NZBS Auckland, Waikato, Wellington, Christchurch - 24/7 NZBS Manawatu, Dunedin and Reference Laboratory - refer Hours of Operation, section 6 <b>After hours</b> Blood Bank should be called to investigate Transfusion Reactions
<b>Turn-around time</b>	6 hours
<b>Sample Referred for Testing</b>	If clinically indicated, tests for HLA antibodies may be sent to the NZBS Tissue Typing Laboratory Samples from implicated blood components may be sent to the Microbiology Laboratory for culture
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Recurring mild reaction previously investigated – refer back of form 111F009
<b>Test Usage</b>	To exclude serological, sampling and clerical errors as a possible cause of the transfusion reaction To identify antibody-mediated reactions to transfusion of blood components
<b>Test Limitations</b>	Not applicable
<b>Test Methodology</b>	Testing of pre- and post-transfusion samples and transfused blood for - ABO Rh (D) group; Antibody screen; DAT Compatibility testing (crossmatch) Further investigations as indicated
<b>Reference Range</b>	No anomalies found
<b>Additional Information</b>	NZBS Medical Officer approval is required if further transfusions are needed before investigations are complete. <b>If the reaction is severe</b> contact the NZBS Medical Officer or Consultant Haematologist <b>immediately</b> . Full completion of the request form is critical to national monitoring of transfusion reactions through the NZBS Haemovigilance Programme.

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Transfusion Reaction to Fractionated Blood Products</b> Investigation of Adverse Transfusion Reaction to Fractionated Product
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	Not Applicable
<b>Method of Collection</b>	Not Applicable
<b>Request Tests on Form</b>	All adverse reactions to blood products must be notified to NZ Blood Service. Obtain form "Notification of Suspected Adverse Reaction to a Fractionated Blood Product" - 111F003, from the Blood Bank. It is to be completed by the clinician.
<b>Collection Instructions</b>	Not applicable
<b>Labelling Information</b>	Not applicable
<b>Testing Schedule</b>	Not applicable
<b>Turn-around time</b>	Not applicable
<b>Sample Referred for Testing to</b>	Not applicable
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Not applicable
<b>Test Usage</b>	To provide early notification of adverse reactions to fractionated blood products To provide summary reports of adverse reactions, to Medsafe and manufacturers of fractionated products
<b>Test Limitations</b>	Not applicable
<b>Test Methodology</b>	Not applicable
<b>Reference Range</b>	Not applicable
<b>Additional Information</b>	Advice is available from NZBS Medical Officers for management of the patient. <b>If the reaction or event is severe</b> phone the NZBS Medical Officer. Contact details available from the NZBS Blood Bank—see Section 6. Full completion of the request form is critical to national monitoring of transfusion reactions through the NZBS Haemovigilance Programme

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Cold Autoagglutinin Screen and Titre</b>
<b>SYNONYMS</b>	Cold Autoantibody Investigation, Screen for Cold Haemagglutinin Disease, Cold Agglutinin Screen
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	6 mL EDTA pink top crossmatch blood collection tube Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube. Preferably transport the sample to the Blood Bank at 37°C and as soon as possible after collection <b>Do not refrigerate</b> sample
<b>Normal Volume</b>	6 mL
<b>Minimum Volume</b>	3 mL
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018 Local laboratory request form
<b>Labelling Information</b>	Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	Monday - Friday (0800 hrs - 1600 hrs)
<b>Turn-around time</b>	24 hours
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	Not applicable
<b>Test Usage</b>	Diagnosis of cold autoimmune haemolytic anaemia Atypical pneumonia (mycoplasma pneumoniae) Raynaud's disease
<b>Test Limitations</b>	Refrigeration of sample may cause false low results
<b>Test Methodology</b>	Haemagglutination techniques. If screen test result is strongly positive, investigations will be performed using adult and cord cells to determine specificity and thermal amplitude.
<b>Reference Range</b>	Normal
<b>Additional Information</b>	Repeat samples may need to be collected and transported at 37°C. Contact Blood Bank for further information.

## SAMPLE COLLECTION MANUAL

### NZBS Blood Banks and Reference Laboratory

<b>TEST NAME</b>	<b>Autoimmune Haemolytic Anaemia Screen</b>
<b>SYNONYMS</b>	AIHA Screen, Autoantibody screen
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	2 x 6 mL EDTA pink top crossmatch blood collection tube as a minimum. Blood Bank will advise if more is required. Note: After sample collection, gently invert the tubes at least eight times to mix the blood with the additive in the tube.
<b>Normal Volume</b>	12 mL
<b>Minimum Volume</b>	6 mL
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018 Local laboratory request form
<b>Labelling Information</b>	Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	Monday - Friday (0800 hrs - 1600 hrs)
<b>Turn-around time</b>	24 hours for AIHA screen 24 – 72 hours for full investigation
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Blood Banks and NZBS Reference Laboratory
<b>Contraindications</b>	DAT negative
<b>Test Usage</b>	Investigation of autoimmune haemolytic anaemia
<b>Test Limitations</b>	Positive DAT may affect ability to obtain valid red cell phenotype
<b>Test Methodology</b>	ABO Rh(D) Group DAT Monospecific DAT Antibody screen Antibody identification Antibody elution studies Red cell phenotyping Autoabsorption studies Alloabsorption studies (if recently transfused)
<b>Reference Range</b>	Not applicable
<b>Additional Information</b>	Presence of AIHA can cause delays in provision of blood for transfusion. Notify Blood Bank as soon as possible if transfusion is planned.

**SAMPLE COLLECTION MANUAL**  
**NZBS Blood Banks and Reference Laboratory**

<b>TEST NAME</b>	<b>Drug Induced Haemolytic Anaemia Investigations</b>
<b>SYNONYMS</b>	Drug Dependent Antibody Investigations
<b>PREREQUISITES</b>	
<b>Strong Positive DAT result (3+ to 4+)</b>	Other reasons for positive DAT must be investigated first.
<b>Authorisation</b>	Test request must be approved by NZBS Transfusion Medical Specialist
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	Will be dependent on drug being investigated and test methodology. Consult Reference Laboratory.
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	NZBS request form "Request for Blood Bank Tests & Blood Components or Products" – 111F018 Local laboratory request form
<b>Labelling Information</b>	Diagnostic testing refer Sections 3.2 and 3.3
<b>Testing Schedule</b>	Monday - Friday (0800 hrs - 1600 hrs)
<b>Turn-around time</b>	24 – 72 hours for full investigation
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Reference Laboratory
<b>Test Usage</b>	For investigation of suspect drug-induced immune haemolytic anaemia
<b>Test Limitations</b>	False positive results can occur - <ul style="list-style-type: none"> <li>• Where there is nonspecific uptake of protein when red cells are coated with some drugs</li> <li>• In some individuals with a drug-independent autoantibody</li> <li>• When antibodies to penicillin cross-react in testing with red cells coated with cephalosporin</li> </ul>
<b>Test Methodology</b>	Test methodologies will be dependent on the drug suspected of causing the haemolysis
<b>Reference Range</b>	Not applicable
<b>Additional Information</b>	Not applicable

**SAMPLE COLLECTION MANUAL**  
**NZBS Blood Banks and Reference Laboratory**

<b>TEST NAME</b>	<b>Blood Group Genotyping</b>
<b>SYNONYMS</b>	DNA blood grouping
<b>PREREQUISITES</b>	
<b>Authorisation</b>	Test request must be approved by NZBS Transfusion Medical Specialist
<b>TEST COLLECTION INFORMATION</b>	
<b>Sample Requirements</b>	1x EDTA sample (Heparinised samples not suitable)
<b>Normal Volume</b>	5ml
<b>Minimum Volume</b>	5ml
<b>Method of Collection</b>	Venepuncture
<b>Request Tests on Form</b>	“Request for Investigation by Reference Laboratory“ (136F136) preferred
<b>Collection Instructions</b>	Pretransfusion testing refer Section 2.2 Samples for pre-transfusion testing cannot be split for use by other laboratories
<b>Labelling Information</b>	Pretransfusion testing refer Section 2.1 and 2.3
<b>Testing Schedule</b>	Demand dependent. Tests usually batched. Contact Reference Laboratory if required.
<b>Turn-around time</b>	6 hours once testing commenced (also see Testing Schedule above).
<b>TEST INTERPRETIVE INFORMATION</b>	
<b>Laboratory</b>	NZBS Reference Laboratory
<b>Contraindications</b>	Patient has mixed red cell population due to recent allogeneic Haematopoietic Progenitor Cell transplant or chimerism
<b>Test Usage</b>	Patients for genotyping are usually those whose clinical condition precludes normal serological phenotyping e.g. they are DAT (IgG) positive or have been transfused in the last 3 months. Genotyping can assist in antibody identification when a patient has a mixture of antibodies, or when the patient is a candidate for transfusion of Prophylactic Antigen Matched (PAM) blood.
<b>Test Limitations</b>	See Contraindications above
<b>Test Methodology</b>	PCR-SSP methodology
<b>Reference Range</b>	Not applicable
<b>Additional Information</b>	Not applicable

**SAMPLE COLLECTION MANUAL**  
**NZBS Blood Banks and Reference Laboratory**

**SECTION 6. HOURS OF OPERATION AND CONTACT DETAILS**

NZBS Site	Postal Address	Courier Address	Hours of Operation	Phone	Fax
<b>Auckland City</b>	Blood Bank Auckland City Hospital Park Road Grafton AUCKLAND	Blood Bank Auckland City Hospital Park Road Grafton AUCKLAND	24 hours 7 days per week	09 307 2834 or 09 307 4949 ext 24015 or 24017	09 307 2823
<b>Christchurch</b>	Blood Bank Christchurch Hospital PO Box 4156 CHRISTCHURCH	Blood Bank Lower Ground Floor Christchurch Hospital Parkside East CHRISTCHURCH	24 hours 7 days per week	03 364 0310 or 03 364 0389	03 364 0159
<b>Dunedin</b>	Blood Bank Dunedin Public Hospital Private bag 1921 DUNEDIN 9016	Blood Bank 3 <sup>rd</sup> floor Dunedin Public Hospital Cnr Cumberland & Frederick Streets DUNEDIN 9016	Mon-Fri 8am to midnight  Saturday 9am-5pm  On call service outside the above hours	03 470 9369 or 03 470 9370  A/Hrs 03 474 0999 (ask for the BB person on call)	03 470 9513
<b>Manawatu</b>	Blood Bank Palmerston North Hospital PO Box 2056 PALMERSTON NORTH	Blood Bank Palmerston North Hospital Gate 12 Ruahine Street PALMERSTON NORTH	Mon-Fri 8am to midnight  Weekends 9am-5pm  On call service outside the above hours	06 350 8558  A/Hrs 06 356 9169 (ask for Transfusion Medicine)	06 357 2854
<b>Waikato</b>	Blood Bank Waikato Hospital PO Box 185 HAMILTON	Blood Bank Waikato Hospital Pembroke Street HAMILTON	24 hours 7 days per week	07 839 8919	07 858 0988
<b>Wellington</b>	Blood Bank Wellington Hospital Private Bag 7904 WELLINGTON SOUTH	Blood Bank Level 6 Clinical Services Building Wellington Hospital WELLINGTON	24 hours 7 days per week	04 385 5982 or 04 918 6961 or 04 918 6962	04 385 5982
<b>NZBS Reference Laboratory</b>	NZBS Reference Laboratory Private Bag 92071 Epsom Auckland	NZBS Reference Laboratory Dilworth House 71 Gt. South Road Epsom Auckland	Mon-Fri 8am to 5pm  On call service outside the above hours	09 523 5730  A/Hrs 027 5525308	09 523 5737
e-mail: <a href="mailto:ReferenceLab@nzblood.co.nz">ReferenceLab@nzblood.co.nz</a>					

## **SECTION 7. REFERENCES**

---

- NZBS national policy, “Pretransfusion Testing – Sample and Request Form Labelling Requirements” (136P00406)
- NZBS national policy, “Diagnostic Specimens – Specimen and Request Form Requirements” (136P10602)
- Australia and New Zealand Society of Blood Transfusion, “Guidelines for Pretransfusion Testing” 5<sup>th</sup> Edition, 2007
- Medical Laboratories – Particular requirements for quality and competence  
NZS/ISO 15189:2003, Section 5.4.3