Australian Red Cross Lifeblood

2020 Edition

Pack Check Student Guide

A student guide for checking the patient, prescription and pack before transfusion

Contents

This resource is designed to teach nurses, midwives and medical students how to check a blood component prior to transfusion.

This resource can be used for self-guided education, or can be used as a student workbook in a classroom setting.

This resource is based on the Australian and New Zealand Society of Blood Transfusion and Australian College of Nursing 2019 *Guidelines for the Administration of Blood Products*, the National Blood Authority's *Patient Blood Management Guidelines*, and Australian Red Cross Lifeblood's *Blood Component Information: An extension of blood component labels*.

Prior learning knowledge test

Before beginning, we recommend that you complete a short test to determine your prior knowledge and identify areas which you are not familiar with.

Below is an example of a blood pack with the following labels attached:

1 Blood component label

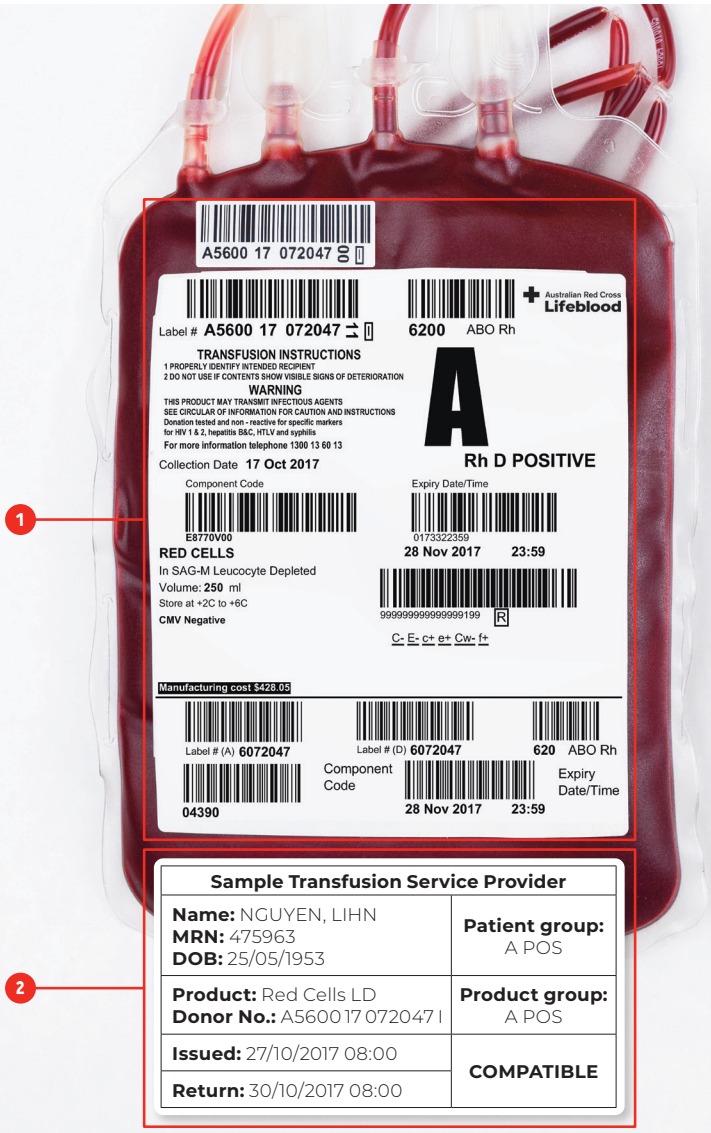
This label is attached by Australian Red Cross Lifeblood during donation and manufacturing processes.

2 Compatibility label

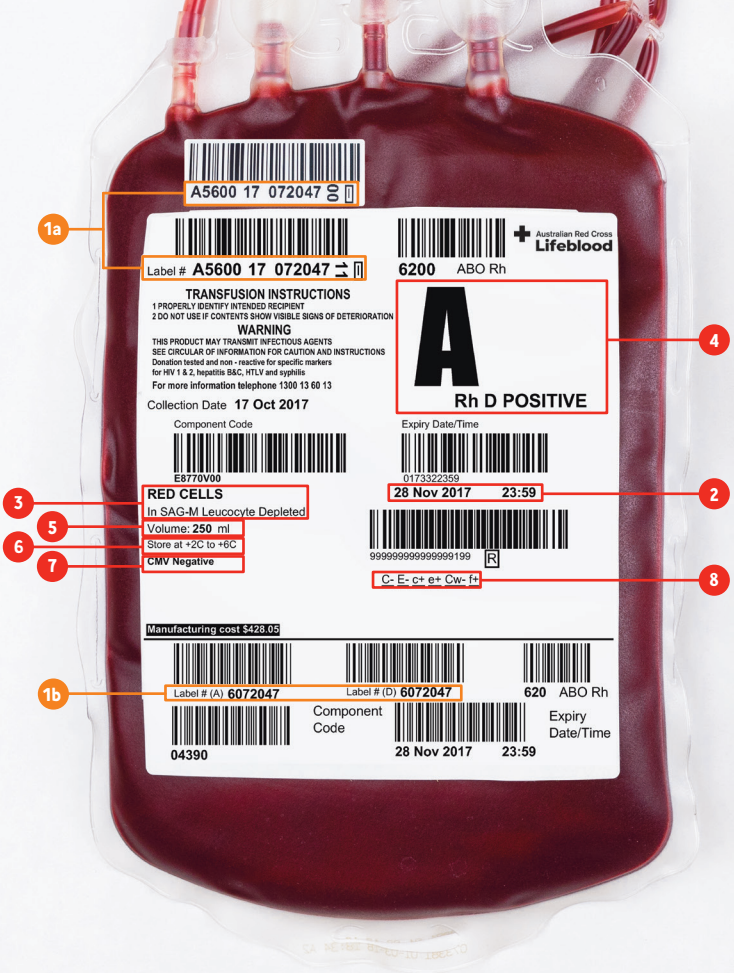
This label is attached by the Transfusion Service Provider once the pack has been allocated to a specific patient. Often a provider will attach more than one of these labels to assist with documentation in the patient's chart.

Complete the checklist below by locating each piece of information on the pack labels.

- ☐ Patient's first and family names
- ☐ Patient's date of birth
- ☐ Product type
- ☐ Any special testing and/or requirements
- ☐ Blood group
- ☐ Blood donation number
- ☐ Expiry date and time



What's on a blood component label?



Information is physically printed on the labels in text and barcode format. The barcode format is used by the Transfusion Service Provider, and the text information is used by clinical staff.

1 Donation identification number

This number links the blood component to the donor. On the label there are two different donor identification numbers, and you will need to determine which number to use, based on the matching number provided by your Transfusion Service Provider on the compatibility label. Providers that have switched to ISBT 128 will use the 14-digit alpha-numeric donation number (**1a**) (Label # or Pool #) in the top left hand corner, while providers using the Codabar system will utilise the donation identification number (**1b**) in the lower section.

2 Expiry date and time

All components have an expiry date, after which they are not suitable for use. The expiry date varies with the component, anticoagulant, additive, method of preparation and storage conditions. Some products like fresh frozen plasma (FFP) and cryoprecipitate have two expiry times; one to indicate how long these components are safe to store frozen and another to indicate the time they are safe to use once thawed.

3 Component name

Components you will come across include red cells, platelets, fresh frozen plasma, cryoprecipitate and cryodelepted plasma.

4 Blood group (ABO and RhD)

5 Component volume in mL

6 Storage temperature

This differs depending on the blood component. Red cells are stored between 2–6°C, platelets between 20–24°C, and FFP, cryoprecipitate and cryodepleted plasma are all stored at -25°C or below prior to thawing.

7 Modifiers

In some circumstances, patients require additional testing or modifications to blood components:

- Cytomegalovirus (CMV) negative components may be requested for a CMV negative patient.
- Irradiated blood components may be requested to prevent transfusion-associated graft-versus-host disease (TA-GvHD).
- Washed red cells may be required for certain patients with a history of severe allergic reactions or reactions to plasma proteins.

8 Phenotype results (if applicable)

A portion of the population have additional antibodies that need further matching to find a compatible blood component.

The patient, prescription and pack check

The patient, prescription and pack check is just one part of blood component administration. This resource concentrates on how to correctly check a pack at the patient's side. The steps below outline the process of blood component administration and may assist in understanding the patient side checks during transfusion administration.

1 Preparation for transfusion

This involves ensuring everything is set up for a successful transfusion including:

- ensuring staff and suitable equipment are available
- ensuring informed consent discussion has occurred and has been documented
- ensuring the prescription is complete and valid
- ensuring IV access is patent and appropriate to use
- confirming the patient's ID band is attached and correct (ask the patient or carer if possible)
- ensuring the patient understands the procedure and possible adverse events
- recording baseline observations
- administering any medication (if required)
- ensuring it is appropriate to proceed at this time.

2 Blood component collection

When collecting a blood component for a patient always:

- take documented patient identification, component type and special requirements, ensuring all patient details and documentation is identical
- ensure that you have collected the correct component type prescribed, and
- ensure all documentation for the removal/ collection has been completed.

3 Patient, prescription and pack check

The key focus of this resource is teaching this part of the administration process, which occurs at the patient's side immediately prior to transfusion. Key steps in this process are:

3.1 Inspecting the pack for integrity, component issues and expiration date and time.

3.2 Ensuring the information on the patient's wristband, the component label and compatibility label are all identical.

3.3 Ensuring the patient details are identical to the prescription.

3.4 Ensuring the prescription details are identical to the component label and compatibility label.

3.5 All above checks were performed uninterrupted by two independent checkers and have been documented. Both must compare and confirm this is the right pack for the right patient.

4 Blood component administration

Start the transfusion as soon as possible after completing the checks, and within 30 minutes of the pack leaving controlled storage. The transfusion must be started by one of the people who completed the checks.

Administer according to the rate on the prescription and ensure the component is completed within four hours and prior to component expiry.

5 Post-transfusion processes

Ensure the patient receives the entire component (consider an IV flush) and monitor patient as your local health service policy requires.

Dispose of the blood component pack if there are no adverse events and complete any required documentation.

Need a checklist?

The checklist for blood component administration is available at **transfusion.com.au/packcheck**

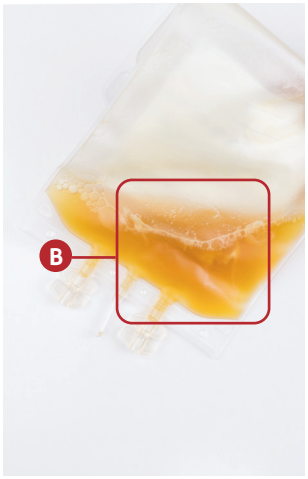
Step 3.1

Inspect the pack

Check the quality and integrity of the pack before you commence the transfusion.

Check the pack for:

- **A** **No leaks and splits**
- **B** **No clots, discolouration, cloudiness**
- **C** **Within expiry date and time**
  There may be more than one expiry date on a pack, so ensure you check the pack thoroughly.



Step 3.2

Identical patient and pack labels

Compare the details on the patient's wristband with the component and compatibility labels. The details should all match.

Check all the details are identical:

- **A** **Patient first and family names**
- **B** **Patient DOB**
- **C** **Patient MRN/URN**
- **D** **ABO blood group compatibility**
  The Transfusion Service Provider will always indicate if a compatible but different blood group is used.
- **E** **Blood donation and batch numbers**
  There are two different donor numbers on the current label. Match the number on the compatibility label to the same format donor number on the pack label.

If there are any discrepancies, contact your Transfusion Service Provider, senior nurse or medical officer.

Step 3.3

Identical patient and prescription

Compare the details on the patient's wristband with the prescription. The details should all match.

Check all the details are identical:

- **A Patient first and family names**
- **B Patient DOB**
- **C Patient MRN/URN**

If there are any discrepancies, contact your Transfusion Service Provider, senior nurse or medical officer.

Step 3.4

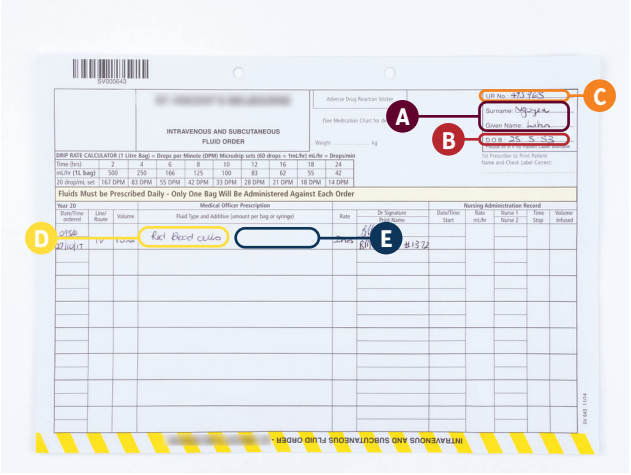
Identical patient and pack labels

Compare the details on the prescription with the component and compatibility labels. The details should all match.

Check all the details are identical:

- **A Patient first and family names**
- **B Patient DOB**
- **C Patient MRN/URN**
- **D Component type**
- **E Special requirements (if any)**

If there are any discrepancies, contact your Transfusion Service Provider, senior nurse or medical officer.



Step 3.5

Confirmation and documentation

This final step must take place immediately after each checker has completed the bedside checks. If there is any delay, the process must be started over from the beginning.

Check:

- All steps of the patient, prescription and pack check were performed uninterrupted by two independent checkers.
- Both checkers agree that this is the right pack for the right patient.
- The process has been documented.

After the checks are completed:

The blood must then be spiked by one of the staff members who performed the bedside check.

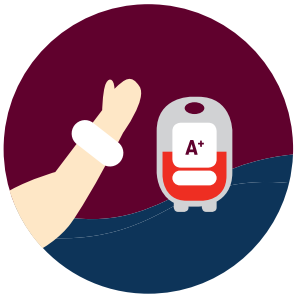
The staff member spiking the pack is responsible for ensuring that it is clinically appropriate to proceed with the transfusion at that time.

Things to remember when transfusing a blood component

The most important things to be aware of when responsible for the administration of blood components are:

Always follow your local health service policies

Ensure that the right pack is given to the right patient at the right time

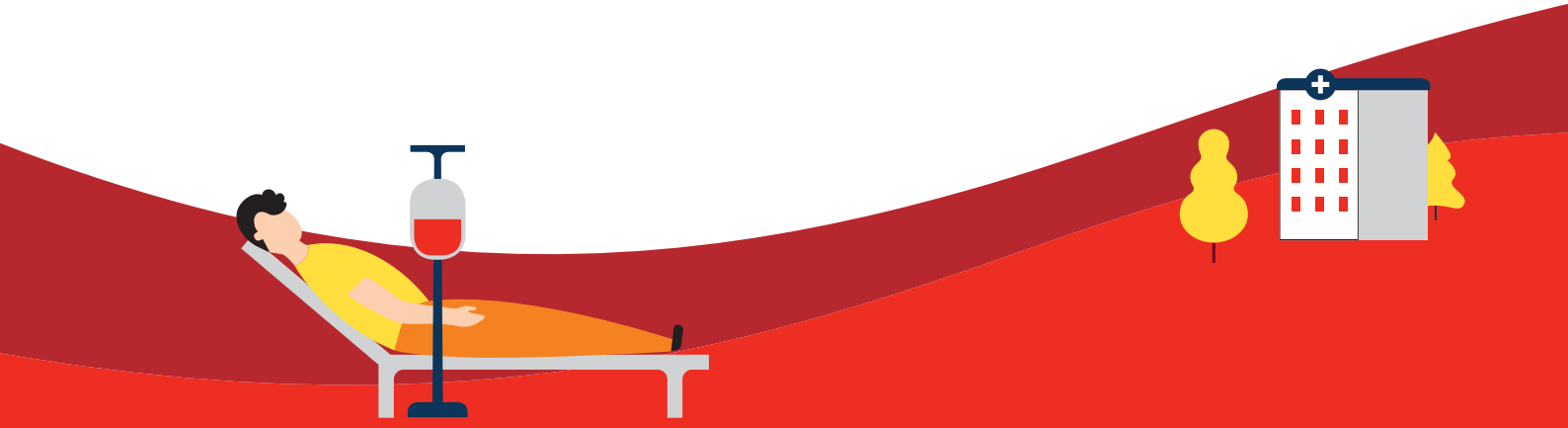


Verify the patient's identity at each stage of the process, involving the patient if possible

Do not proceed if you have any doubts and contact the Transfusion Service Provider, senior nurse or medical officer

Each person undertaking the administration of a blood component should understand their role and responsibilities according to the ANZSBT Administration Guidelines

Be aware of potential adverse transfusion reactions and their clinical presentation, and carefully monitor your patient throughout the transfusion



Additional resources

The following resources can be found at **transfusion.com.au/packcheck** to assist you in improving your transfusion administration knowledge.

Pack Check: Clinical Scenarios

Practice the patient, prescription and pack check in the context of a clinical scenario. Scenarios include red cells, platelets, FFP, cryoprecipitate, a thalassaemia patient, a neonatal patient, and a paediatric patient.

Blood Component Administration Checklist

A quick reference guide for the administration of fresh blood components covering the following topics: preparation for transfusion, blood component collection, the patient, prescription and pack check, blood component administration, and post-transfusion processes.

Blood Product Administration Checklist

A quick reference guide for fractionated blood products covering the following topics: preparation for administration, blood product collection, the patient, prescription and product check, blood product administration, and post-administration processes.

Blood Compatibility Card

Part of the patient and pack check includes ensuring the component is compatible with the patient. This quick reference card covers the basics of ABO and RhD compatibility for red cells, platelets and plasma components.

iTransfuse App

The iTransfuse App is the transfusion bedside support tool all clinicians need. The app includes interactive versions of the Blood Component Administration Checklist, Blood Product Administration Checklist. Blood Compatibility Card, and interactive tools for the diagnosis and management of transfusion reactions.

Blood Book: Australian Blood Administration Handbook

This resource has been developed to assist Australian health professionals in safe bedside transfusion practice including:

- information on the range of blood components and products currently available in Australia,
- guidance on the safe use and administration of blood components and products for neonates, paediatrics and adults, and
- checklists for both blood component and product administration.

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