



NATIONAL BLOOD AUTHORITY
AUSTRALIA

How low can we go?

**Tackling Blood and Blood Product
Wastage – does one solution fit all
and what really works?**

Lyndsay Wall
NICE 2016



2012/13 Financial Year

- 💧 RBC DAPI 5.1%
- 💧 Platelets 17.8%
- 💧 Total cost \$29 million per annum



Australian Health Ministers' Statements on National Stewardship Expectations for the Supply of Blood and Blood Products expects all health providers:

“To identify develop and promote the implementation of measures that reduce wastage through improved health provider inventory management of blood and blood products”

So why was wastage so high?

What were the obstacles, what was done to remove them and what actions have health providers undertaken?



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Incentives

🔴 *National Blood and Blood Product Wastage Reduction Strategy 2013-2017*

NATIONAL BLOOD AND BLOOD
PRODUCT WASTAGE REDUCTION
STRATEGY 2013-2017

*Working smarter to minimise Blood and Blood Product
wastage*

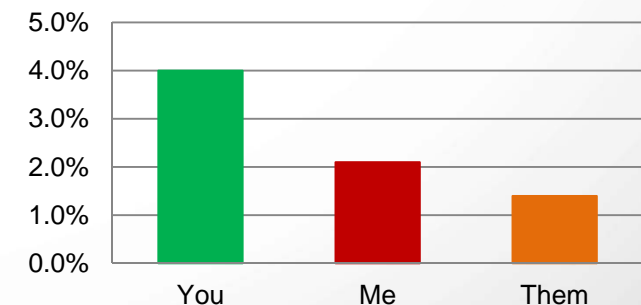


🔴 *National Safety and Quality Health Service (NSQHS) Standard 7 – Blood and Blood Products*



Blood and Blood Products
Standard 7

🔴 *Shadow target discard rates for benchmarking wastage rates at a peer, state and national level.*





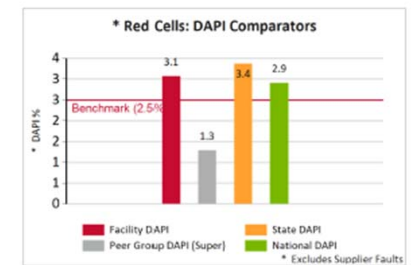
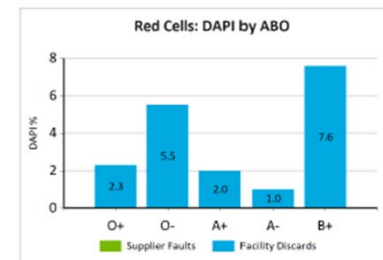
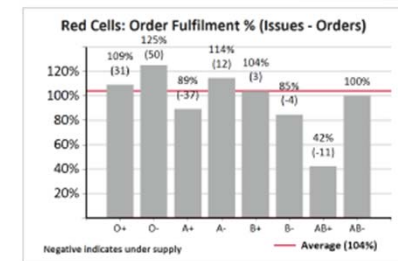
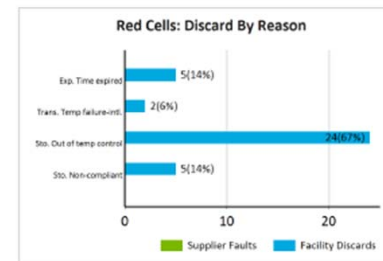
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Resources

Managing Blood and Blood Product Inventory: Guidelines for Australian Health Providers



Enhanced reporting





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Resources

🔴 Promotion and education material

- ➡ Posters
- ➡ Swing tags
- ➡ Magnets
- ➡ Cooler bags
- ➡ Pens
- ➡ Pen holders

Stop and think!

Blood is a precious resource generously donated by volunteers. Millions of dollars' worth are discarded unnecessarily each year.

Everyone can do their bit to reduce blood waste.

- Red blood cells can only be stored in an AS3864 compliant monitored blood refrigerator
- Do NOT place red blood cells in a domestic refrigerator or pharmacy fridge
- Remember the 30 minute rule: start the red blood cell transfusion in the laboratory within 30 minutes of collection

Stop! Think! Stop! Think! Stop!

Do NOT place red blood cells in a domestic refrigerator or pharmacy fridge

Remember the 30 minute rule: start the red blood cell transfusion in the laboratory within 30 minutes of collection

Blood is a precious resource. Stop the waste!

For more information on blood and blood products visit www.blood.gov.au/stopthewaste to access the latest information.

Stop and think!

Platelets are a precious resource generously donated by volunteers. Millions of dollars' worth are discarded unnecessarily every year.

Know your product:

- Platelets must NOT be refrigerated
- Store platelets only at room temperature (20° to 24° C)
- If in doubt do not use and contact your laboratory

Stop and Think... Stop the Waste!

For more information on blood and blood products visit www.blood.gov.au/stopthewaste to access the latest information.

🔴 Price indicators

Collection Date
16 Apr 2013

EXPIRY DATE
28 May 2013 23:59

Label # 1604011

RED CELLS in SAG-M
Leucocyte Depleted

04390

Store at +2C to +6C
Volume: 246 ml

A

Rh D NEGATIVE

Manufacturing cost \$345.45

TRANSFUSION INSTRUCTIONS

1. PROPERLY IDENTIFY INTENDED RECIPIENT
2. DO NOT USE IF CONTENTS SHOW VISIBLE SIGNS OF DETERIORATION

WARNING
THIS PRODUCT MAY TRANSMIT INFECTIOUS AGENTS
SEE CIRCULAR OF INFORMATION FOR CAUTIONS AND INSTRUCTIONS

Donation tested and non-reactive for specified markers for HIV 1&2, hepatitis B&C, HTLV and syphilis.
Collected and processed by Australian Red Cross Blood Service
For more information Telephone 1300 13 60 13

Manufacturing cost \$345.45

- Better Practice Case Studies series
- Engagement
- Patient Blood Management (PBM) Guidelines





Regular inventory review:

- 🔥 activity and wastage over previous 6 - 12 months
- 🔥 holiday activity – order less for school holiday periods esp. in private hospitals
- 🔥 prescribing practices – e.g. a single unit policy
- 🔥 product transfer opportunities

Festive season – checklist



'STOP the Waste' festive checklist

As we approach the end of the year, Blood Matters ask that you take some time to prepare for the festive season to minimise Victorian blood product wastage. This checklist is designed to assist blood management committees/scientists/transfusion nurses/trainers/ quality managers to prepare for variations in practice over the festive period.

Items to check	Y	N	NA	Comments/notes
1. Perioperative suite				
Are there planned closures? Dates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Will there be reduced hours? When will normal service resume?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Please check if there will be reduced services, and associated reduced blood use in the following areas over festive period?				
Haematology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Oncology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vascular	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Gastroenterology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cardio-thoracic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Orthopaedic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Trauma (?increased use)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Gynaecology/obstetrics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Plastic and reconstructive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Neurosurgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Paediatric	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ophthalmology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Endocrine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
General surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Anaesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Urology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cell salvage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PLEASE NOTE: This list is not all encompassing and you may wish to add additional areas. Version 2 - Aug 2016 Page 1 of 2





Implementing tools to manage inventory:

- 🔴 Ten Tips Poster
- 🔴 visual Prompts
- 🔴 short expiry shelf
- 🔴 BloodNET reports
- 🔴 electronic crossmatching
- 🔴 reduced crossmatch periods
- 🔴 simplify procedures
- 🔴 recording FATE to ward level
- 🔴 MBOS
- 🔴 Extended Life Plasma protocol

10 tips to help manage your blood product inventory
Supporting "Managing Blood Product Inventory: Guidelines for Australian Health Providers"



1 UNDERSTAND YOUR INVENTORY
Expert inventory managers understand and regularly monitor their inventory. This includes reviewing patterns of inventory holdings, where inventory is held, fridge levels, delivery patterns, wastage rates, and usage rates. A full inventory can be reviewed using the BloodNet reporting feature at apoc.nba.gov.au/bsi/bsi.html.

2 PROVIDE EXPERT TRAINING
Research has shown that having staff that are well trained can have an overall positive effect on inventory management and reducing wastage. You should ensure all staff involved in the handling of blood products participate in a well-designed training program. Your hospital's medical officer induction program should include a session on blood use.

3 SET APPROPRIATE INVENTORY LEVELS
There is a strong relationship between inventory levels and wastage. Hospitals and laboratories that hold more blood products relative to their average daily use often have higher wastage rates. The task is to balance having sufficient inventory to meet clinical need while keeping wastage rates at a minimum. Each health provider is responsible for setting their own inventory levels and ensuring those are appropriate.

4 KEEP PROCEDURES SIMPLE
Simply doing a physical count of your inventory on a regular basis and setting trigger ordering levels can prevent staff from placing unnecessary orders and therefore having more inventory. You can take advantage of the Minimum Order Quantity feature in BloodNet to help implement trigger points for orders. Planning ahead can also help if you can ask hospital doctors to provide you with details of blood product requirements in advance.

5 BUILD COLLABORATIVE RELATIONSHIPS
Having good relationships with everyone involved in the supply, handling and use of blood products can help with managing inventory. This should encourage clinicians to understand the inventory and ordering process to minimise the number of unnecessary orders that could lead to product unavailability.

6 USE OLDEST PRODUCT FIRST
When new product enters the inventory it should be sorted to allow it to be used on an oldest-product-first-out basis. Options to consider if you believe product is getting close to expiry might include transferring to another hospital or laboratory, rotating segregated inventories where possible and highlighting to the product that may be soon to expire.

7 OPTIMISE CROSSMATCHING PROCEDURES
Consider electronic crossmatching for red cells in conjunction with a Group and Screen or Maximum Blood Order to include priority packs for patients without clinically significant antibodies. Remember that each time blood is screened or crossmatched for a patient, this blood is removed from available inventory where blood has been screened for a patient, consider short wastage periods such as 24 hours only.

8 MAINTAIN ALL EQUIPMENT APPROPRIATELY
All equipment used for the storage and handling of blood products, such as refrigerators, freezers and plasma freezers should be maintained and monitored in accordance with relevant standards and guidelines. You should have a plan for backup storage arrangements in the event of any equipment failure to prevent the loss of product.

9 HAVE A PLAN TO CONSERVE INVENTORY IN TIMES OF SHORTAGE
When inventory levels are running low you should have a plan for what to do to conserve product should the need arise. Develop local policies concerning the management of contingency events.

10 HAVE A PATIENT BLOOD MANAGEMENT PROGRAM
Before the decision to transfuse is made, all of the risks, benefits and alternatives should be considered. There may be another, more appropriate product or treatment that can be used.

For more information
Visit www.blood.gov.au/inventory and www.blood.gov.au/guidelines for the Managing Blood Product Inventory: Guidelines for Australian Health Providers and supporting materials or email apoc@nba.gov.au or call 13 000 BLOOD (13 000 25668).

References
1. Sharpe P, Vane A, Whiting S and others. Blood Management: Hospital Best Practice. Canberra: Health Services, 2012. 30-32, 103.
2. Harris S, Hearn C, Taylor C, Chapman A. Hospital Blood Inventory: The Role of the Clinical and Laboratory. Transfusion Medicine, 2005. 15(1): 30-35.
3. Blood Management: Hospital Best Practice. Canberra: Health Services, 2012.
4. Equipment for Transfusion: A Guide for the First Edition, National Haemophoria Association. Adelaide: Council, 2008.
Date: 20 March 2014



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Actions

Improved collaboration and engagement:

- facility, hospital, jurisdiction and nationally
- between health and pathology services
- attendance at hospital committees
- Education - presentations at inservices and conferences
- articles in newsletters
- sharing blood fridge compliance data
- PBM programs



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BLOODNET | News

So what works?

Everything. There is no one solution to fit all.

2015/16 financial year:

- 🔴 RBC DAPI 2.8%
- 🔴 Platelets 13.0%



2016/17 quarter 1:

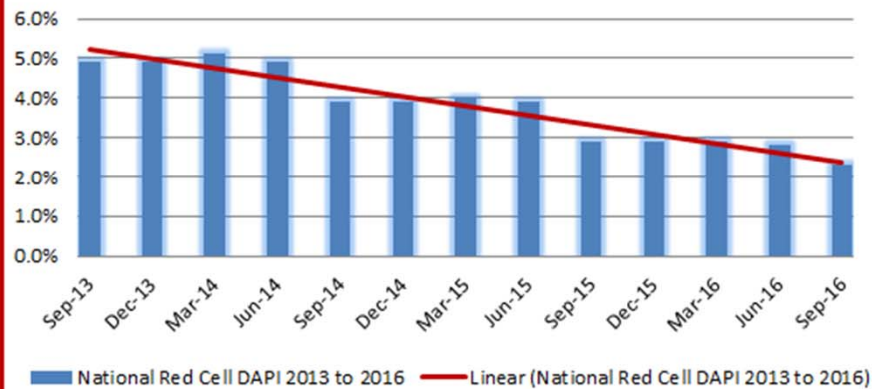
- 🔴 RBC DAPI 2.3%
- 🔴 Platelets 12.9%

More than **\$19 million** of savings since the introduction of the Wastage Strategy

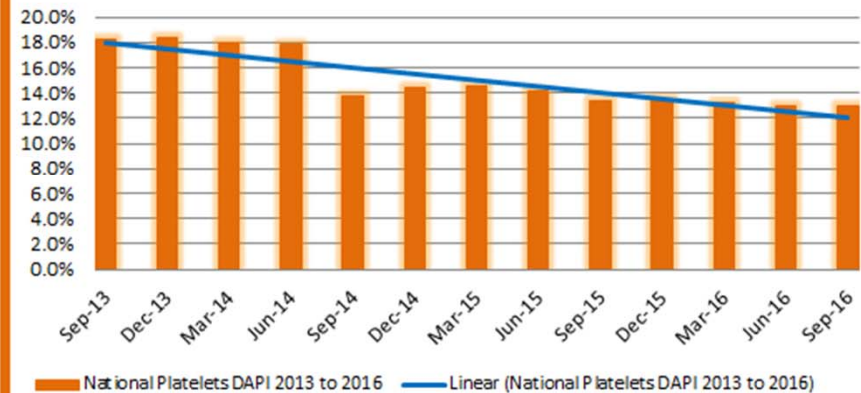


Where to now?

National Red Cell DAPI 2013 to 2016



National Platelets DAPI 2013 to 2016



How low can we go?

Is a goal of **2%** for RBC and **8%** for platelets achievable?



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Saving & improving
Australian lives
through a world class
blood supply

Thank You

www.blood.gov.au