The National Blood Authority and Inventory Management

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NICE
November 2012
Our role is to ensure the adequate, safe, secure and affordable supply of blood and blood products in Australia.

The NBA coordinates:

- national blood supply and demand planning;
- purchases blood and blood products on behalf of all Australian governments; and
- develops and implements national strategies to encourage better use of blood and blood products.
The NBA is looking at ways to encourage better use of blood and blood products.

**Stewardship**

- Encompasses “doing the right thing” with products.

Inventory management is one aspect of this.
Important Influences in Inventory Management


• ORBCoN Inventory Management Toolkit. Ontario Regional Blood Coordinating Network 2008
10 tips to help manage blood product inventory

Supporting the National Inventory Management Better Practice Guidelines

1 UNDERSTAND YOUR INVENTORY
Expert inventory managers understand and regularly monitor their inventory. This includes reviewing patterns of inventory holdings, where inventory is held, trigger levels, delivery patterns, waste ratio, and usage rates. All of this information can be examined using the BloodNet reporting features at www.blood.gov.au under the Information tab.

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 end blood banks that hold more blood products relative to their average daily use often have higher wastage rates. The trick is to balance having sufficient inventory to meet clinical need while keeping wastage rates at a minimum.

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 ensuring inventory. Planning ahead can also help. If possible, ask hospital clinicians to provide you with details of blood product requirements in advance.

5 BUILD COLLABORATIVE RELATIONSHIPS
Having good relationships with all hospital staff can help with managing inventory. You should encourage clinicians to understand the inventory and ordering process to minimize the number of unnecessary orders that could lead to product unavailability.

6 USE OLD PRODUCT FIRST
When new product enters the inventory it should be sorted to allow it to be issued 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, rotating segregated inventories where possible and highlighting to others product that may soon expire.

7 OPTIMISE CROSSMATCHING PROCEDURES
Consider electronic crossmatching for red cells in conjunction with a ‘Group and Screen’ or Maximum Blood Order Schedule (MBOS) policy for patients without clinically significant antibodies. Remember that each time blood is cross-matched for a patient, this blood is removed from ‘available’ inventory. Where blood has been reserved for a patient, consider short reservation 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 thawers 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 use of products.

9 HAVE A PLAN TO CONSERVE INVENTORY IN TIMES OF SHORTAGE
Where 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

References
4. Requirements for Transfusion Laboratory Practice (First Edition), National Pathology Accreditation Advisory Council, 2009
5. Standard 7 Blood and Blood Products, Australian Commission on Safety and Quality in HealthCare, 2012
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5. OPTIMISE CROSSMATCHING PROCEDURES
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Consider electronic crossmatching for red cells in conjunction with a “Group and Screen” or “Maximum Blood Order Schedule (MBOS)” policy for patients without clinically significant antibodies. Remember that each time blood is reserved as cross-matched for a patient, this blood is removed from “available” inventories. Whose blood has been reserved for a patient, it is not available for other patients.

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3. SET APPROPRIATE INVENTORY LEVELS
   There is a strong relationship between inventory levels and wastage. Hospitals and blood banks that hold more blood products relative to their average daily use often have higher wastage rates. The trick is to balance having sufficient inventory to meet clinical need while keeping wastage rates at a minimum.

6. USE OLD PRODUCT FIRST
   When new product enters the inventory it should be sorted to allow it to be issued 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, rotating segregated inventories where possible and highlighting to others 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 Schedule (MBOS)” policy for patients without clinically significant antibodies. Remember that each time blood is reserved as cross-matched for a patient; this blood is removed from “available” inventory. Where blood has been reserved for a patient, consider short reservation periods such as 24 hours only.

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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. Use your in-house knowledge to provide training, and consider external expertise.

3. 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 excess inventory. Planning ahead can also help. If possible ask hospital clinicians to provide you with details of blood product requirements in advance.

4. USE OLD PRODUCT FIRST
   When new product enters the inventory it should be sorted to allow it to be issued 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, reducing the inventory of that product or establishing a policy for patients who have not been given a product.

5. OPTIMISE CROSSMATCHING PROCEDURES
   Consider electronic crossmatching for red cells in conjunction with a “Group and Screen” or “Maximum Blood Order Schedule (MBOS)” policy for patients without clinically significant antibodies.

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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

3. Build collaborative relationships
Having good relationships with all hospital staff can help with managing inventory. You should encourage clinicians to understand the inventory and ordering process to minimise the number of unnecessary orders that could lead to product unavailability.

4. Use old product first
When new product enters the inventory it should be sorted to allow it to be issued 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, rotating segregated inventories where possible and highlighting to others product that may be soon to expire.

5. Optimise crossmatching procedures
Consider electronic crossmatching for red cells in conjunction with a "Group and Screen or Maximum Blood Order Schedule (MBOA) policy for patients without clinically significant

6. 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

References
1. Swkienger S, Bednarski N, Stilling E, and Cotton S. Blood Inventory Management: Hospital Best Practice. Transfusion Medicine reviews, 2012;26:103-113

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   - 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. **ENCOURAGE CLINICIANS**
   - Encourage clinicians to understand the inventory and ordering process to minimize the number of unnecessary orders that could lead to product unavailability.

4. **MAINTAIN ALL EQUIPMENT APPROPRIATELY**
   - All equipment used for the storage and handling of blood products, such as refrigerators, freezers and plasma thawers, 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.

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   - When new product enters the inventory, it should be sorted to allow it to be issued 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, rotating segregated inventories where possible and highlighting to others that product may be soon to expire.

6. **OPTIMISE CROSSMATCHING PROCEDURES**
   - Consider electronic cross-matching for red cells in conjunction with a “Group and Screen” or “Maximum Blood Order Schedule (MBOS)” policy for patients without clinically significant antibodies. Remember that each time blood is released as cross-matched for a patient, this blood is removed from “available” inventory. Where blood has been reserved for a patient, 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.

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4. Requirements for Transfusion Laboratory Practice (First Edition). National Pathology Accreditation Advisory Council, 2000
5. Standard 7 Blood and Blood Products, Australian Commission on Safety and Quality in HealthCare, 2012

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### BloodNet Stock Summary Report

**Facility Fresh Component Stock Summary**

**The Hospital Lab - Nov 2012**

**ISI = Issuable Stock Index (approximation of number of days of unreserved stocks corrected for transfers and discards)**

#### Data Extract

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<th>Total Qty Ordered</th>
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<td><strong>365.34</strong></td>
<td><strong>48</strong></td>
<td><strong>79</strong></td>
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</tbody>
</table>

#### Last 12 Months Stock Levels - Red Cells O+

- CMV Negative - Max Stock On Hand
- CMV Negative - Min Stock On Hand
- Irradiated - Max Stock On Hand
- Irradiated - Min Stock On Hand
- Max Stock On Hand
- Min Stock On Hand
- Not Modified - Max Stock On Hand
- Not Modified - Min Stock On Hand
- Not Modified - Avg Stock On Hand
Saving & improving Australian lives through a world class blood supply
Thank you
Joanne.cameron@nba.gov.au

www.blood.gov.au