

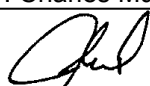


Document History:

Title: Visual Inspection of Blood, Blood Components and Derivatives

Site(s): All DSM sites

Document #:	160-INV-12	Version #:	02
Section:	Manitoba Transfusion Quality Manual for Blood Banks	Subsection:	INV Module

Approved by: Dr. Charles Musuka
Signature: 

Written By: TM Discipline Team

Date: 20-FEB-2013

Date: March 2011

1. Annual Review:

#	Reviewed by:	Date:	Approval:	Date:
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2. Summary of Revisions:

#	Details of Revisions:	Date:	Approval:	Date:
1	New document		A Kabani	31-MAR-2011
2	<ul style="list-style-type: none">4.4 updated with steps for Trace Line sites6.1 moved into 4.44.4 added pictures	Jan 29 2013	C Musuka	20-FEB-2013
3				
4				
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3. Date Archived:



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Visual Inspection of Blood, Blood Components and Derivatives

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1.0 Principle

To ensure that all blood, blood components and/or derivatives received, issued for transfusion, returned to inventory or shipped out of the facility are visually inspected for abnormalities

2.0 Scope and Related Policies

- 2.1** Blood, blood components and derivatives shall be visually inspected.
- 2.2** The visual inspection shall be documented.
- 2.3** If an abnormality or discrepancy is detected, the blood, blood component and/or derivative shall be quarantined until appropriate disposition is determined.

3.0 Materials

Blood, blood component and/or derivative
INV Form- DSM Blood Bank Customer Feedback
Form- CBS Blood Bank Customer Feedback
Appropriate blood bank log/Trace Line
CBS Visual Assessment Guide (www.blood.ca)

4.0 Procedure

- 4.1** Inspect blood, blood components and/or derivatives at the following times:
 - Upon receipt from the blood supplier or another facility
 - At time of crossmatch
 - Before being issued for transfusion/infusion
 - Before being shipped to another facility
 - Upon return to usable inventory
- 4.2** Determine if the blood, blood component and/or derivative is in date.
 - If the expiry date is day/month/year, the product expires at midnight on that day
 - If the expiry date is month/year, the product expires at midnight on the last day of the month
- 4.3** Visually inspect the blood, blood component and/or derivatives
Refer to the following Tables for inspection criteria:
 - Table 1: Visual Inspection of Red Blood Cells
 - Table 2: Visual Inspection of Platelet and Plasma Components
 - Table 3: Visual Inspection of DerivativesRefer to CBS Visual Assessment Guide (www.blood.ca) for most current information)

**Visual Inspection of Blood, Blood Components and Derivatives**

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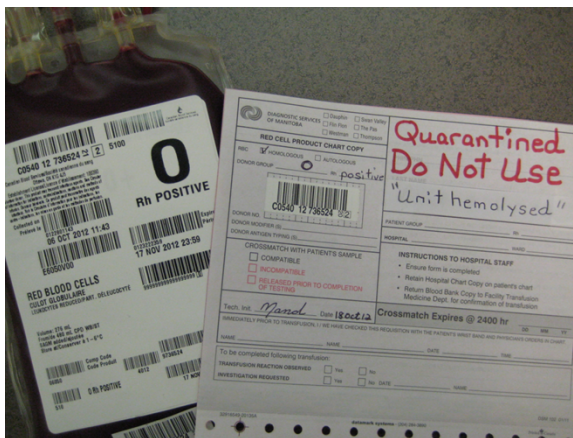
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4.0 Procedure Cont'd

4.4 For all blood, blood components and/or derivatives that fail the visual inspection refer to appropriate table for action and reporting.

4.4.1 Quarantine the product by placing it in a container labelled "Do Not Use"

- Affix a tag onto the unit(s) clearly stating "Quarantined: DO NOT USE" (see pictures below)
- Describe the reason for the quarantine. Date and initial the tag
- Place in a separate bag
- Place the blood, blood component or derivative in suitable storage that is clearly labelled and away from general inventory and assigned units
- For Trace Line sites quarantine the product in Trace Line. Refer to Trace Line Procedure: Quarantine/Release from Quarantine in Trace Line

**Non Trace Line Sites****Trace Line Sites**

4.4.2 Notify CBS/BTS to determine if product is to be discarded or returned

Note: *Haemolysed units are discarded, not returned to CBS*

- For Trace Line sites the product must be rejected and ship to destruction in Trace Line. Refer to Trace Line Procedure: Handling Discarded/Expired/Recalled Blood, Blood Components and Derivatives in Trace Line
- For Non Trace Line sites: If product is to be discarded refer to INV Procedure: Documenting the Final Disposition of Blood, Blood Components and Derivative

4.4.3 Complete appropriate customer feedback form

4.4.4 If product is to be returned to CBS/BTS

- Package and ship according to INV Procedure- Inter-facility shipping for Blood, Blood Components and Derivatives.
- Ensure a copy of the completed appropriate customer feedback form is included.
- Also include additional supporting documentation if applicable (such as packing slips, issuing forms, test results, etc.).
- For Trace Line sites include copy of Shipment Packing Slip
- For Non Trace Line sites ensure completed INV Form- Inter facility Blood, Blood Component or Derivative transfer is included

4.5 For Non Trace Line sites: Document the results of the visual inspection and the final disposition of the product in the appropriate blood bank log.



Visual Inspection of Blood, Blood Components and Derivatives

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Table 1: Visual Inspection of Red Blood Cells

Abnormality	Description	Action	Reporting
Expired	The product must be in date.	<ul style="list-style-type: none"> • Notify CBS/ BTS, if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Open Ports	Port covers should be intact unless the product has been modified. If modified then must have at least one original port with cover intact*	<ul style="list-style-type: none"> • Notify CBS /BTS if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Leakage	Ensure the segments, ports, bag are not cracked and or leaking	<ul style="list-style-type: none"> • Notify CBS /BTS if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
No Segments	Ensure at least one donor segment is attached to the unit	<ul style="list-style-type: none"> • Notify CBS /BTS if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Front label Missing /obscured / defaced (written on)	Ensure that unit label is not missing, defaced or obscured	<ul style="list-style-type: none"> • Notify CBS /BTS if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Purple or black red cell mass Bright red plasma colour. Note check unit and segments	Suspect haemolysis due to physical destruction of red cells or by bacterial contamination. Note: Some degree of haemolysis is acceptable	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Red cell colour in the segment(s) is different than in the unit	The red cell colour in the segment(s) is significantly lighter than in the unit.	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Lipemia	Whitish to lighter shade of red with increased opacity- like a strawberry milkshake	• Acceptable to Transfuse/ Release	
Air Bubbles	Excessive and unusual air bubbles. May indicate bacterial contamination.	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete customer feedback form
Clots / Fibrin strands	Small to large red or purple masses that do not dissipate with mixing May indicate bacterial contamination	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Cold agglutinins	Large red blood masses that do not dissipate with mixing	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Cellular aggregates	White and opaque masses that do not dissipate with mixing	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
White particulate matter	Non cellular lipid- rich material that appears white in colour and variable in shape from flattened specks to a greasy film. It may dissipated with a change in temperature and is a normal constituent of blood	• Acceptable to Transfuse/ Release	

* Modified products are products that have been manipulated in an open system.

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Table 2: Visual Inspection of Platelets

Abnormality	Description	Action	Reporting
Expired	The product must be in date.	<ul style="list-style-type: none"> • Notify CBS/ BTS, if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Open Ports	Port covers should be intact unless the product has been modified. If modified then must have at least one original port with cover intact*	<ul style="list-style-type: none"> • Notify CBS /BTS if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Leakage/ Signs of breakage	Ensure the segments, ports, bag are not cracked and or leaking	<ul style="list-style-type: none"> • Notify CBS /BTS if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Front label Missing /obscured / defaced (written on)	Ensure that unit label is not missing, defaced or obscured	<ul style="list-style-type: none"> • Notify CBS /BTS if applicable • Discard the unit 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Red Cell contamination on Platelets	Only applicable to Rh negative females less than 45 years of age when transfusing Rh positive platelets to an Rh negative recipient.	<ul style="list-style-type: none"> • BTS Medical Director approval is needed 	<ul style="list-style-type: none"> • Document consult in appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Plasma colour is bright red	Indicates significant haemolysis. Note: Some degree of haemolysis is acceptable	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Discoloured Plasma	Greyish murky colour, purple or brown. May indicate bacteria contamination Note: Colour variations may occur due to icterus (yellow), oral contraceptives (green), Vitamin A or consumptions of carrots (orange) These are acceptable	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Lipemia	Milky white appearance	Acceptable to Transfuse/ Release	
Air Bubbles	Excessive and unusual air bubbles. May indicate bacterial contamination	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Clots / Fibrin strands	Small to large red or purple masses that do not dissipate with mixing May indicate bacterial contamination	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
Cellular aggregates	White and opaque masses that do not dissipate with mixing	<ul style="list-style-type: none"> • Quarantine the unit • Notify CBS / BTS, if applicable • Return the unit to CBS or discard as appropriate 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form
White particulate matter	Non cellular lipid- rich material that appears white in colour and variable in shape from flattened specks to a greasy film. It may dissipated with a change in temperature and is a normal constituent of blood	<ul style="list-style-type: none"> • Acceptable to Transfuse/ Release 	<ul style="list-style-type: none"> • Document in the appropriate blood bank log/Trace Line • Complete appropriate customer feedback form

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*Modified products are products that have been manipulated in an open system.

Table 3: Visual Inspection of Derivatives

Abnormality	Description	Action	Reporting
Expired	The product must be in date.	<ul style="list-style-type: none">• Notify CBS/ BTS, if applicable• Discard the unit	<ul style="list-style-type: none">• Document in the appropriate blood bank log/Trace Line• Complete appropriate customer feedback form
Sterile cap covers not intact	Cap cover must be intact	<ul style="list-style-type: none">• Notify CBS/ BTS, if applicable• Discard the product	<ul style="list-style-type: none">• Document in the appropriate blood bank log/Trace Line• Complete appropriate customer feedback form
Leakage/ Signs of breakage	Check for cracks or leaking in vial or bottle.	<ul style="list-style-type: none">• Notify CBS/ BTS, if applicable• Discard the product	<ul style="list-style-type: none">• Document in the appropriate blood bank log/Trace Line• Complete appropriate customer feedback form
Product appears cloudy	Cloudiness may indicate bacterial contamination or presence of particulate matter.	<ul style="list-style-type: none">• Quarantine the unit• Notify CBS / BTS, if applicable• Return the unit to CBS or discard as appropriate	<ul style="list-style-type: none">• Document in the appropriate blood bank log/Trace Line• Complete appropriate customer feedback form
Air Bubbles	Excessive and unusual air bubbles. May indicate bacterial contamination	<ul style="list-style-type: none">• Quarantine the unit• Notify CBS / BTS, if applicable• Return the unit to CBS or discard as appropriate	<ul style="list-style-type: none">• Document in the appropriate blood bank log/Trace Line• Complete appropriate customer feedback form

5.0 Reporting

See Tables 1, 2 and 3.

6.0 Procedural Notes