

# NEW ABO 2 Sample Protocol

Reducing the Risk to Mistransfusion



Winnipeg Regional  
Health Authority  
*Caring for Health*

Office régional de la  
santé de Winnipeg  
*À l'écoute de notre santé*

## Thank You

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## Objectives:



Identify the reason for a new safety measure



Assess when some patients may require a second check of their blood type



Recognize the implications of this safety measure in practice



Summarize the safety implications for patients



Identify the resources available for support related to this safety measure

# Blood Type = Blood Group



# Why the Change?



## College of American Pathologists (CAP) Accreditation

“Requires that the facility (CBS and DSM) has a system to reduce the risk of mistransfusion for non-emergent red cell transfusions.”

(CAP citation, Jul 2015)

## Misidentification Risk

***“Mistransfusion occurs from misidentification of the intended recipient at the time of collection of the pretransfusion testing sample, during laboratory testing and preparation of units to be issued, and at the time of transfusion.”*** (CAP requirement TRM.30575)

**“Misidentification at sample collection occurs approx. once in every 1,000 samples, and in one in every 12,000 transfusions the recipient receives a unit not intended for or not properly selected for him/her.”** (CAP requirement TRM.30575)

## Transfusion Medicine Best Practices Recommends either:

1. **Electronic patient identification systems (ex. bar coding).**  
If electronic patient identification systems are not available/feasible then:
2. ***A second sample needs to be drawn for ABO confirmation***  
*(BCSH,2013) (Boltin-Maggs et al, 2014)*
  - a. When no historical blood type has been recorded
  - b. The Exception: urgent/ emergent cases

**Fundamental process – not 100% foolproof**

## The Solution



The initial type and screen is collected as usual

Patients without an ABO blood group on file (who have never been typed and screened before) will receive Type O, Rh specific

***\*\* Emergency protocols are unchanged \*\****

***\*\* Does not affect neonates \*\****



Receiving type O blood is equally safe for (A, B, AB recipients):



O is the universal donor



Current practice (inventory management)



## Will Group O Inventory be Impacted?

(Referenced from Slide presentation from Provincial TPC Meeting presented by Canadian Blood Service on Dec. 14<sup>th</sup> 2015)

- Currently it is standard practice at Trace Line sites to minimize outdating of group O red cells by transfusing to non-group O patients
- In a 6 month period in 2015, 892 group O red cells (4.9%) were transfused to non-group O patients
- If the group O units that are currently transfused to non-group O patients are redirected for this process, there should be no impact on the group O inventory supply

# The Process



If a patient requires greater than 2 units, the blood bank/lab will call  
the clinical area to request a second Type and Screen specimen  
collection

*Collection equipment and the requisitions are the SAME.*


# How will this look on Trace Line?

## The Transfusion Medicine Results Report (TMRR) after Screen #1

If there is no ABO in Trace Line the “Transfusion Protocols” will indicate that:


“Group O red cells required– only 1 sample tested”

**TRANSFUSION MEDICINE RESULTS REPORT**




Canadian Blood Services  
Société canadienne du sang

Sample Number: 54101234567812  
Date Received: 2016-03-04 10:45  
Request Number: 41072001  
Trace Line Number:  
9876543210



Date Printed: 2016-03-04 12:01 CST  
Printed at: CanadianBloodServices, Winnipeg

**PATIENT, ONE**  
PHN: MB 111 222 333



DOB: 1970-01-01      Sex: Male

Medical Record Number: 00044568-2  
Ordering Facility: Health Sciences Centre, Winnipeg  
Physician: Jones, John  
Ward: SICU

Receiving Facility: Health Sciences Centre, Winnipeg

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**Patient Summary:**

Blood Group: A Positive      Known Antibodies:

Phenotype:

Transfusion Protocols:  
Group O red cells required – only 1 sample tested

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Test Performed:	Results:	Date Collected: 2016-03-04
ABO/Rh	A Positive	
Antibody Screen	Negative	

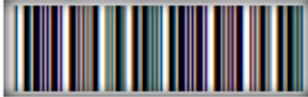

Crossmatch Expires: 2016-03-07 23:59

New transfusion protocol showing that this patient only has 1 sample tested and only group O red cells can be issued

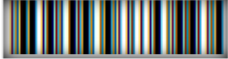


# Issue Tag

**PATIENT, ONE**

PHN: MB 111 222 333                      Patient Blood Group

                      **Apos** 

Ordering Facility: Health Sciences Centre, Winnipeg  
Medical Record Number: 00044568-2

Donation Number	Component	Component Blood Group
<input type="checkbox"/> 		
C054016123457 <input checked="" type="checkbox"/>	E6050V00 SAGM RBC LR	<b>Opos</b>








**Crossmatch: Compatible** →

**Crossmatch Expires: 2016-03-07 23:59**

Date Issued : 2016-03-05 15:00


# The Record of Transfusion or ROT

The "Protocols" section will indicate when there is only one sample tested. If patient has a previous ABO blood group in Trace Line this will be blank.

RECORD OF TRANSFUSION		
 DIAGNOSTIC SERVICES MANITOBA SERVICES DIAGNOSTIC MANITOBA  Health Sciences Centre - Winnipeg 820 Sherbrook St Winnipeg, MB R3A 1R9 Telephone: 204-787-3508    Fax: 204-787-1503  Trace Line Number: 9876543210   Date Printed: 2016-03-05 15:00 CST		<b>PATIENT, ONE</b> PHN: MB 111 222 333    Patient Blood Group   <b>Apos</b> DOB: 1970-01-01 Ordering Hospital: Health Sciences Centre, Winnipeg Medical Record Number: 00044568-2 Ward: SICU Physician: Jones, John  Receiving Hospital: Health Sciences Centre, Winnipeg
<b>Protocols:</b> Group O red cells required – only 1 sample tested		
Donation Number  C054016123457 <input checked="" type="checkbox"/>	Component  E6050V00 SAGM RBC LR	Component Blood Group  <b>Opos</b> Component Expires: 2016-04-01 23:59
Comments:  <b>Crossmatch: Compatible</b> Crossmatch Expires: 2016-03-07 23:59 Visual Inspection: Acceptable    Date Issued: 2016-03-05 15:00		
<b>Complete this Section when partial or full component is infused</b>		
<b>Complete information below and return to the Hospital Blood Bank or Laboratory</b>		
<b>Start of Transfusion Date:</b> _____		<b>Start of Transfusion Time:</b> _____ <small>YYYY-MM-DD    HH:MM</small>
<small>All components that are issued and NOT used MUST be returned to the Hospital Blood Bank or Laboratory.</small>		
<b>This Section To Be Completed By Hospital Blood Bank or Laboratory</b>		
<b>Date Discarded:</b> _____		<b>Signature:</b> _____ <small>YYYY-MM-DD</small>

## Remember....

 **Only** when a patient has **received** 2 units of Red Blood Cells will a second sample be requested.

 And if this happens during that admission then the blood bank/lab will contact the nurse/ward to notify them that a second ABO specimen needs to be drawn.

## After the Second ABO Specimen has been Processed.....

Once the 2<sup>nd</sup> ABO sample has been tested and a patient now has 2 ABO samples in Trace Line there will be a Transfusion Medicine Results Report (TMRR) that is issued that indicates:




“Supplementary Report” ABO confirmatory testing complete. Group O red cell protocol removed.

This becomes a part of the patients chart.

TRANSFUSION MEDICINE RESULTS REPORT	
 <p>Canadian Blood Services Société canadienne du sang</p> <p>Sample Number: 54101234567812            Date Received: 2016-03-04 10:45            Request Number: 41072001            Trace Line Number: 9876543210</p>  <p>Date Printed: 2016-03-06 12:45 CST            Printed at: Canadian Blood Services, Winnipeg</p>	<p><b>PATIENT, ONE</b>  <b>PHN:</b> MB 111222333</p>  <p><b>DOB:</b> 1970-01-01      <b>Sex:</b> Male</p> <p><b>Medical Record Number:</b> 00044568-2  <b>Ordering Facility:</b> Health Sciences Centre, Winnipeg  <b>Physician:</b> Jones, John  <b>Ward:</b> SICU</p> <p><b>Receiving Facility:</b> Health Sciences Centre, Winnipeg</p>
<p><b>Patient Summary:</b></p> <p><b>Blood Group:</b> A Positive      <b>Known Antibodies:</b></p> <p><b>Phenotype:</b></p> <p><b>Transfusion Protocols:</b></p> <p style="text-align: right;"><b>Date Collected:</b> 2016-03-04</p>	
<p><b>Test Performed:</b> ABO/Rh      <b>Results:</b> A Positive</p> <p>Antibody Screen      Negative</p> <p style="text-align: right;"><b>Crossmatch Expires:</b> 2016-03-07 23:59</p>	
<p>*****SUPPLEMENTARY REPORT*****            2016-03-06: ABO confirmatory testing complete. Group O red cell protocol removed.</p>	








## Note...

-  If a patient had an ABO type and screen done and patient was identified as having no previous ABO in Trace Line...
-  It is possible for the patient to be discharged without having a second ABO sample sent for testing.
-  The Second sample could be drawn on a subsequent admission.

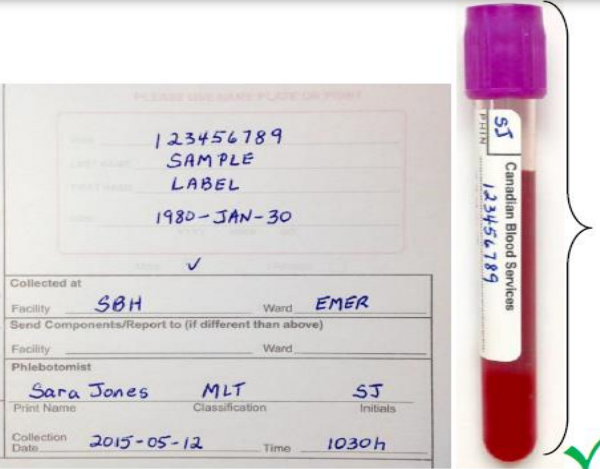
# Blood Collection prior to Transfusion

(Manitoba Transfusion Medicine Study Guide, 2012)

-  Requisition is prepared with correct patient identifiers
-  Blood Specimens should be labeled in the patient's presence using the patients arm band.
-  Label includes name, PHIN(or unique identifier), date and time of collection, phlebotomists initials and facility
-  Label must be attached to the specimen tube before leaving patient's bedside
-  Perform final check that specimen, requisition and patient's armband are all identical



Demographics  
on the request  
form

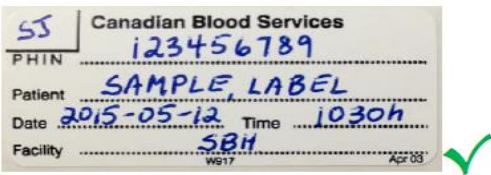


Label is pressed flat  
and not wrinkled  
Label is not overlapping  
itself  
Tube content is visible

Label shall include:

- Unique ID
- Patient last name, first name
- Date of Collection
- Time of Collection
- Facility
- Phlebotomist Initials



# Patient Education Points



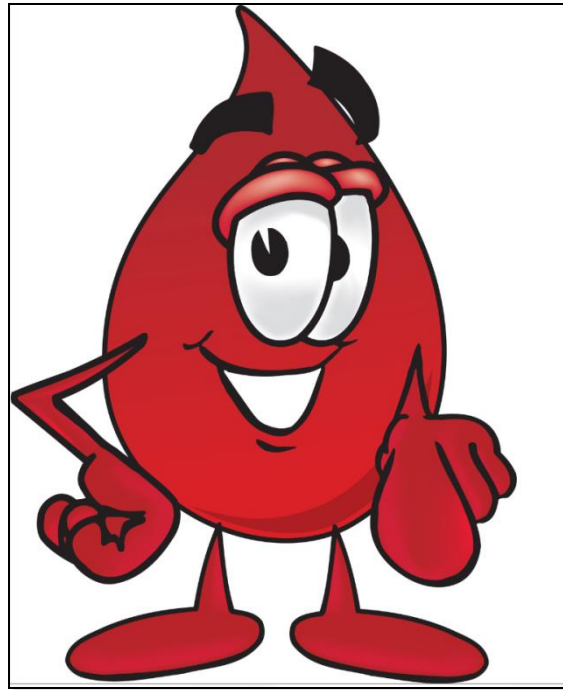
This is an important safety measure  
**\*\*Errors can be fatal\*\***



Patient may receive Group O blood (even if pt. is A, AB, B)



Receiving Group O blood is just as safe



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# Effective: April 4<sup>th</sup> 2016

# Information Resources

Citation info. Available: <http://dsmanitoba.ca/wp-content/uploads/2014/09/CPC-2016-0114.pdf>

[www.bestbloodmanitoba.ca](http://www.bestbloodmanitoba.ca)

Transfusion Medicine Physician On-Call

WRHA Blood Conservation Service Office: 204-787-1277

## References

- ▶BCSH, Milkins, C., et al (2013).Guidelines for Pre-transfusion Compatibility Procedures in Blood Transfusion Laboratories. *Transfusion Medicine*, 23, 3-35.
- ▶Boltin-Maggs, Paula H.B. (2014).Wrong Blood in Tube – Potential for Serious Outcomes: Can it be Prevented?. *British Journal of Haematology* 2015, 168, 3-13.
- ▶Manitoba Transfusion Medicine Best Practice Resource Manual for Nursing Version 2 – Revised June 2011, Retrieved from <http://www.gov.mb.ca/health/bloodprograms/manual.html>