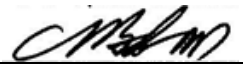
Original Effective Date:	4/2016
Last Approved Review Date:	NA
Last Approved Revision Date:	NA
Responsible Department:	Laboratory
Responsible Person:	Laboratory Medical Director

Signature: 

Infant Transfusion

Purpose

To provide instructions and procedure for transfusion of an infant.

Background

Hemolytic disease of the fetus and newborn (HDFN), fetal/neonatal alloimmune thrombocytopenia (FNAIT), and immune thrombocytopenia (ITP) affect pregnant women and their fetuses and newborns. The blood bank and transfusion service play critical roles in supporting the diagnosis and treatment of these conditions.

Specimen

Mother

- Anticoagulated (EDTA, heparin, ACD, AS-1, AS-3, AS-5, CPD, CPDA-1, CP2D) stored at 1-10^{o}C for up to 10 days.
- Clotted stored at 1-10^{o}C for up to 21 days.

Infant

- Clotted cord blood sample stored at 1-10^{o}C for up to 10 days.
- Capillary or venous, anticoagulated (EDTA, heparin, ACD, AS-1, AS-3, AS-5, CPD, CPDA-1, CP2D) or clotted sample stored at 1-10^{o}C for up to 10 days.

Donor unit

- Anticoagulated (EDTA, heparin, ACD, AS-1, AS-3, AS-5, CPD, CPDA-1, CP2D) donor unit segment stored at 1-6^{o}C up to expiration.

Materials

Reagents	Supplies	Equipment
• Anti-IgG • Coombs Check Cells • 0.9 % buffered saline • Enhancing reagent (PEG, LISS, Albumin)	• Test tubes • Test tube rack • Disposable pipettes	• Calibrated centrifuge • Automatic cell washer (if different from above). • Agglutination lamp

Quality Control

Reagents must be tested each day of use with appropriate controls. Verify that testing has been performed. If not, see SOP *Reagent Quality Control.*

Procedure

1. Set up of infant unit

Step	Action
1	This procedure should be performed whenever the infant unit is greater than 10 days old. Use Appendix A to determine the age of the unit.
2	Order a PRBC unit from MVRBC that has/is: • O Negative • <10 days old • CMV tested negative • HgbS negative. *NOTE: We will accept a known Caucasian donor in lieu of HgbS testing and test it ourselves. See* HgbS Test Ordering and Resulting *for instructions.*
3	Call MVRBC hub and indicate that the unit wasn't used to see if they want it returned.

If…	Then….
MVRBC does want the unused, >10 day old unit back,	Refer to *Shipping Unit* procedure how to ship the unit back.
MVRBC does not want the unused, >10 day old unit back,	Place the unit on the regular inventory shelf.

4	Follow instructions in *Receipt of Blood Components* for entering unit and unit attributes into Meditech system.
5	Place the unit in a unit holder and then in the designated area of the refrigerator for the infant transfusion unit.
6	Record the date on a ">10 days On" sticker that the unit will be >10 days old. See Appendix B: >10 days On Sticker.
7	Place the ">10 days On" sticker on the front of the unit, at the top, not covering the base label.

2. Infant transfusion-non-emergent

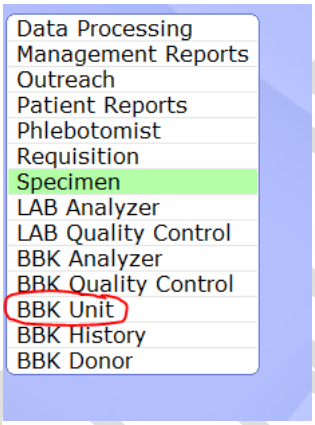
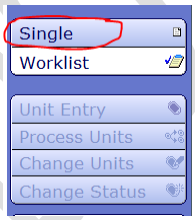
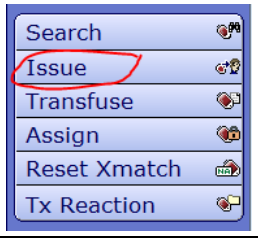
Step	Action
1	If notified of transfusion request by phone, indicate to caller that a product order should be entered into Meditech, if not already done, and a Request for Product Delivery order must be entered into Meditech.

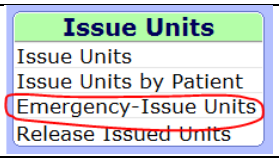
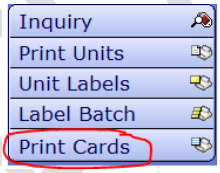
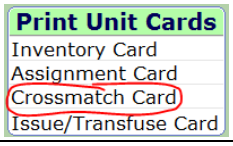
<table>
<tr><td>2</td><td>Make sure there is a sample on the mother that is <72 hours old, 2 ABO/Rh types are in the system and the current sample has a completed antibody screen done.
<table>
<tr><th>If…</th><th>Then….</th></tr>
<tr><td>Mother’s sample is >72 hours,</td><td>Request floor order GTS.</td></tr>
<tr><td>There is no sample on mother ,</td><td>Request floor order GTS.</td></tr>
<tr><td>Only 1 ABO/Rh is in the computer,</td><td>Order ABO confirmation or ABO verify as appropriate.</td></tr>
<tr><td>Current sample does not have an antibody screen completed,</td><td>Perform ABSCN on sample.</td></tr>
<tr><td>If mother has antibody history other than passive anti-D or allo anti-D,</td><td>• Notify the floor that a unit will need to be ordered and confirm that they will wait. If they can’t wait, refer to section 3 on emergent transfusion.
• Antigen type current inventory units, if able, to find unit that is O Neg, <10 days old, CMV neg and HgbS neg.
• If unable to find suitable unit in current inventory, order O Neg, <10 days old, CMV neg and HgbS neg unit from MVRBC that is antigen negative for mother’s antibody(ies).</td></tr>
<tr><td>If transfusing doctor can’t wait for any of the above to be performed,</td><td>Refer to section 3 on emergent transfusion.</td></tr>
</table></td></tr>
<tr><td>3</td><td>Make sure there is a sample on the baby that is <72 hours old and appropriate newborn testing for that specimen is complete.
<table>
<tr><th>If…</th><th>Then….</th></tr>
<tr><td>There is no sample,</td><td>Confirm with floor that baby has been born and registered.</td></tr>
<tr><td>If baby has not been born and they are anticipating need,</td><td>• Confirm with floor whether this is emergent or non-emergent.
• If emergent, refer to section 3.
• If non-emergent, continue to step 9 below.</td></tr>
</table></td></tr>
<tr><td>4</td><td>Compare mother and baby samples to ensure that information on baby sample matches mom’s.</td></tr>
<tr><td>5</td><td>Print off 1 label for mother and 1 label for baby from Meditech.</td></tr>
<tr><td>6</td><td>Attach both labels to a Patient Manual Testing Form.</td></tr>
<tr><td>7</td><td>Somewhere near the mother’s label, indicate her historical ABORh type.</td></tr>
<tr><td>8</td><td>Somewhere near the infant’s label, indicate it’s historical ABORh type.</td></tr>
<tr><td>9</td><td>Obtain mother’s current sample for testing</td></tr>
</table>

10	Remove 1 tail segment from the donor unit to be transfused.
11	Record the donor unit number in the crossmatch section of the Patient Manual Testing Form by either writing it or affixing a donor unit label. See *Result Reporting* section for example.
12	Under the donor unit number, indicate that the mother's plasma was used for this crossmatch. See *Result Reporting* section for example.
13	In the "Markers, Attributes, Antigens" space, indicate that this is for an infant transfusion as well as any antigens the unit is negative for. See *Result Reporting* section for example.
14	Perform a full crossmatch using the mother's plasma and the donor unit cells according to the Crossmatch SOP.
15	Record the results on the Patient Manual Testing Form. See *Result Reporting* section for example.
16	**If at any point in testing the crossmatch is incompatible, immediately inform the physician and pathologist of the incompatibility.**
17	If the baby has not been born yet, the crossmatch can be performed, but it will not be able to be entered into Meditech until the baby is registered.
18	Once the baby is registered, perform steps 5-8 above. Then continue to step 19.
19	Using the baby's information, order an ABRO in Meditech. See SOP *Ordering tests in Meditech 6.0* for instructions.
20	Result the ABRO on the baby as positive or negative to match the mother's current antibody screen. See *Result Reporting* section for example and instructions.
21	Notify nursery to order unit on the baby in Meditech if not already done. *NOTE: This may cause a GTS to be ordered by the system. Go in and cancel this GTS if ordered.*
22	Go into *BBK History* module and change the default crossmatch for the baby to a full crossmatch. See SOP *Crossmatching Red Cell Products* for instructions.
23	Enter the crossmatch results recorded on the Patient Manual Testing Form into Meditech on the unit order for the baby. See SOP *Crossmatching Red Cell Products* for instructions.
24	Print off crossmatch tag and attach to crossmatched unit. See SOP *Crossmatching Red Cell Products* for instructions.
25	Issue unit to nursery following instructions in *Issuing Blood Products* SOP.
26	Continue to section 7.

3. Infant transfusion-emergent

Step	Action
1	If notified of transfusion request by phone, make sure to obtain mother's name, DOB and M# as well as infant's name, M# and whether the infant is born and registered in

	Meditech yet.
2	Review mother's blood bank history, if able and available, to determine if mother has any clinically significant alloantibodies. Is so, notify nursery/L&D and confirm that floor still wants emergency release. If not, continue to step 3.
3	If baby is born, indicate the need for registration of baby before unit can be issued. Once born and registered, then continue to step 4.
4	Obtain a *Blood Bank Emergency Consent* Form.
5	Complete the following: 1. Patient's name 2. M# 3. DOB 4. Place an "X" in the box next to "Group O negative uncrossmatched red cells for an unknown blood type".
6	Obtain the infant transfusion unit from the refrigerator.
7	Obtain an "Uncrossmatched Blood" sticker and attach it to the unit.
8	Activate and attach a Genesis Timestrip® Blood Temp 10 temperature sticker as described in *Genesis Timestrip Blood Temp 10*.
9	From the main desktop in MCARE, open the **BBK Unit** desktop. 
10	Choose **Single** from the right menu bar. 
11	Choose **Issue** from the right menu bar. 
12	Choose **Emergency-Issue Units** from resulting menu.

	
13	In the **Patient Name:,** type one of the following: a. The patient's name in the following format *Last Name,First Name* b. The patient's M number in the following format *U#MXXXXXXX*.
14	Select the correct patient by comparing all information available from the resulting list.
15	Select the current admission.
16	An error message will appear indicating that there are no crossmatched or assigned products for this patient. Press F12 or click *Close*. See the example in the *Reporting Results* section.
17	Scan the unit number barcode into the **Unit** field. *NOTE: Depending on the patient's historical blood type, if there is one, an error message may indicate that the unit and patient's types do not match but are compatible. Click* **OK** *to continue.*
18	In the **Spec** field, press "N" and then "Enter" on the keyboard. This will order a new specimen which we will cancel after we issue.
19	Notify the phlebotomists, either using the radio system or by calling the dispatch number, that the nursery draw for a blood bank tube should not be drawn.
20	Press the "Enter" key until the cursor is in the **Messenger** field and then enter the location that the unit is being sent to.
21	Inspect the unit according to Appendix E.
22	If unit is acceptable, press the "Enter" key until the cursor is in the **Unit Acceptable?** field and type "Y".
23	Press the "Enter" key until the cursor is in the **Filter Issued?** field and type "N". Filters for blood transfusion are maintained by nursing.
24	Press F12 or click **Save** to file transaction.
25	Click on **Print Cards** from the right side menu bar. 
26	Choose **Crossmatch Card** from the box. 
27	Scan the unit number barcode into the **Unit** field.
28	Click **OK**
29	Choose the appropriate printer to print to if not already done.

30	Click **OK**
31	Attach Crossmatch sticker to unit.
32	An Issue/Transfusion sheet will print off after issue in Meditech. This will be used during second person check.
33	Continue to section 7.

4. Infant exchange transfusion

Policy: Memorial blood bank does not perform product modification for infant exchange transfusions. Memorial can provide 1 unit of PRBC, as described above, and 1 unit of thawed FFP, assigned and issued by following appropriate SOPs to nursery. Plasma issued on infant should be compatible with **Mother's ABO/Rh** type. Type AB pos or neg should be given if Meditech does not allow for issue of other types on infant. Every effort should be undertaken to avoid giving type AB plasma due to the increased incidence of TRALI with type AB plasma. At this point, nursery can manipulate units to perform exchange transfusion, however, once units are entered, units cannot be stored in any refrigerator outside of the blood bank, nor can they be returned to the blood bank to be used for infant at a later date.

5. Infant platelet transfusion

Policy: Memorial blood bank does not provide product support for platelet transfusions of infants. Platelet transfusions for infants are best served by transfusion of pheresis of mother's platelets. CTA can be contacted by the nursery physician to inquire about this option if mother is able to provide. In the event that this is not an option, Memorial can provide 1 unit of random platelets, assigned and issued by following appropriate SOPS to nursery. Memorial is not equipped to handle the request for these special products at this time.

6. Infant plasma transfusion

Policy: Memorial blood bank does not perform product modification for infant plasma transfusions. Memorial can provide 1 unit of thawed FFP, assigned and issued by following appropriate SOPs to nursery. Plasma issued on infant should be compatible with **Mother's ABO/Rh** type. Type AB pos or neg should be given if Meditech does not allow for issue of other types on infant. Every effort should be undertaken to avoid giving type AB plasma due to the increased incidence of TRALI with type AB plasma. At this point, nursery can manipulate units to perform plasma transfusion, however, once units are entered, units cannot be stored in any refrigerator outside of the blood bank, nor can they be returned to the blood bank to be used for infant at a later date.

7. Second Person Review

- Non-laboratory personnel or laboratory personnel NOT trained in blood bank

Step	Action
1	A second staff member must perform a second check or verification **BEFORE** any blood product is released to the nursery for transfusion.
2	Any Memorial Hospital employee is capable of performing the verification check. In emergent situations, this may be performed with the nurse in the patient care area at the time of product delivery.
3	The blood bank tech will retrieve the issued unit, the Request Blood Product Delivery and the Issue/Transfusion sheet. *NOTE: If emergent situation, there will not be a* Request Blood Product Delivery.
4	The second person will be given the issued unit and Job Aid for second person review. See Appendix B.
5	The second person will check: 1. The unit has a Genesis Timestrip® Blood Temp 10 temperature sticker attached to the unit and that it is activated. 2. The unit has a crossmatch tag attached to it. 3. The base label has not been defaced in any way.
6	The second person will read from the front of the unit: 1. The donor unit number. 2. The donor unit expiration. 3. The donor unit ABO and Rh type. 4. The type of unit (ex. Red Blood Cells, Irradiated Red Blood cells) 5. If the unit is CMV negative or not. 6. Any antigen typing results.
7	As the second person reads from the front of the unit, the blood bank personnel will check the information against the information located on the Issue/Transfusion sheet and the antibody and special requirement information that they recorded on the Request Blood Product Delivery sheet.
8	The second person will then read the following from the transfusion sticker attached to the unit: 1. The patient's full name 2. The patient's date of birth 3. The patient's H number (Account number) 4. The interpretation of crossmatch where it says "Comp?" read "Y" or "L". If unit is a plasma product, this will be blank. 5. The issue date/time.
9	As the second person reads from the transfusion sticker, the blood bank personnel will check the information against the information located on the Request Blood Product Delivery sheet.
10	If all information matches, the second person will put their employee ID number next to the issue tech's ID number on the Issue/Transfusion sheet that the blood bank will keep.

	Proceed to step 12.
11	If any of the information does not match, blood bank tech must investigate or have a reason for the discrepancy. See the "Interpretation" section of procedure for further instructions.
12	Blood bank personnel will then staple or otherwise attach the Request Blood Product Delivery sheet and the Issue/Transfusion sheet to each other and place in the review box.
13	Continue to section 8.

► Blood bank trained personnel

Step	Action
1	A second staff member must perform a second check or verification **BEFORE** any blood product is released to the patient care area for transfusion.
2	If the second checker is blood bank trained, then continue to step 3. If the second checker is not blood bank trained, then return to the previous section for personnel not trained in blood bank.
3	The issuing tech will retrieve the issued unit, the Request Blood Product Delivery and the Issue/Transfusion sheet and give all to the second checker.
4	The second checker will check: 1. The unit has a Genesis Timestrip® Blood Temp 10 temperature sticker attached to the unit and that it is activated. 2. The unit has a crossmatch tag attached to it. 3. The base label has not been defaced in any way.
5	The second checker will compare the following to ensure the they match exactly:

Item checked	1st Comparison	2nd Comparison
1. Patient's full name 2. Patient's H# 3. Patient's DOB 4. Patient's ABO/Rh 5. Donor ABO/Rh 6. Donor unit # 7. Donor unit expiration 8. Special requirements 9. Patient's antibodies 10. Crossmatch results	1. Request for Delivery 2. Request for Delivery 3. Request for Delivery 4. Transfusion Tag 5. Transfusion Tag 6. Transfusion Tag 7. Transfusion Tag 8. Request for Delivery 9. Request for Delivery	1. Transfusion Tag 2. Transfusion Tag 3. Transfusion Tag 4. (Is it compatible with unit?) 5. (Is it compatible with patient?) 6. Front of donor unit 7. Front of donor unit 8. Donor label and/or tags 9. Donor label and/or tags 10. (If anything other than "Y", do you have a release signed?)

		10. Transfusion Tag	
6	If all information matches, the second checker will put their employee ID number next to the issue tech's ID number on the Issue/Transfusion sheet that the blood bank will keep.		
7	If any of the information does not match, blood bank tech must investigate or have a reason for the discrepancy. See the "Interpretation" section of procedure for further instructions.		
8	Blood bank personnel will then staple or otherwise attach the Request Blood Product Delivery sheet and the Issue/Transfusion sheet to each other and place in the review box.		
9	Continue to section 8.		

8. Delivery to nursery

	Policies
1	All units must be transported out of the blood bank one at a time. 1 unit for an infant can last 4 transfusions depending on infant's weight.
2	Once unit has been entered, it cannot be returned to the blood bank, however, the transfusionist can continue to transfuse syringes from that unit for 4 hours from the time of issue.
3	Only a RN, LPN, physician or other personnel as indicated by blood bank supervisor or laboratory management, may transport blood from the blood bank that is not in a transporter.
4	Any personnel wishing to transport blood from the blood bank must present a typewritten piece of identification of the patient they are wishing to receive products on. *Handwritten or verbal confirmation will not be accepted.*
5	The second person check **MUST** be performed before units can be removed from the blood bank, unless unit is delivered by blood bank personnel to nursery and second check is performed there with nurse.
6	Units can be transported in the following ways: 1. Pick up by nurse/physician (see section below) 2. Delivery by blood bank personnel to nursery (see section below) 3. Pneumatic tube system (see section below)

► Nurse pickup

Step	**Action**
1	Nurse/physician presents blood banker with patient identification.
2	Blood banker retrieves unit to be given.
3	If second person check has not been performed, perform with nurse/physician or laboratory personnel.

4	Place unit in large biohazard plastic bag and seal.
5	Hand off to nurse/physician.
6	If emergent situation, continue to step 8.
7	If non-emergent, continue to section 9.
8	If emergent situation that requires a Blood Bank Emergency Consent form to be signed by the doctor, give form to nurse/physician picking up the unit and be sure that they understand that the ordering physician needs to sign and send back to the blood bank.
9	If Blood Bank Emergency Consent form sent for signature, leave a note for supervisor if not returned within 24 hours.
10	Continue to section 9 in emergent situations.

► Delivery by blood bank personnel to nursery

Step	Action
1	Blood banker retrieves unit to be given.
2	If second person check has not been performed, perform with nurse/physician or laboratory personnel, or it can be performed in nursery with nurse. Be sure to take the Job Aid for Second Person Review to nursery if nurse is to perform second check.
3	Place unit in large biohazard plastic bag and seal.
4	Take biohazard bag with unit and Job Aid, if applicable, to nursery for delivery.
5	Nurse/physician in nursery will then present blood banker with typewritten patient identification.
6	If second person check has not been performed, perform according to *Issuing* SOP.
7	If not emergent situation, hand bag with unit to nurse/physician and continue to section 10.
8	If emergent situation, continue to step 9.
9	If emergent situation that requires a Blood Bank Emergency Consent form to be signed by the doctor, give form to nurse/physician receiving the unit and be sure that they understand that the ordering physician needs to sign and send back to the blood bank, if unable to sign right then.
10	If Blood Bank Emergency Consent form left for signature, leave a note for supervisor if not returned within 24 hours.
11	Continue to section 9 in emergent situations.

► Pneumatic tube transport

Step	Action
1	If second person check has not been performed, perform with other laboratory personnel.
2	Retrieve unit to be given.

	If emergent situation that requires a Blood Bank Emergency Consent form to be signed by the doctor, send form in biohazard bag pocket with unit and be sure that they understand that the ordering physician needs to sign and send back to the blood bank. If not emergent, continue to step 3.
3	Place unit in large biohazard plastic bag and seal.
4	Scan badge into tube system
5	Press **Send/Enter**
6	Press **Menu**
7	Arrow down to **User Special Function**
8	Press **Send/Enter**
9	Arrow down to **Badge Secure Transaction**
10	Press **Send/Enter**
11	Enter the numeric code for the location that the unit needs to go to.
12	Press **Send/Enter**
13	Call nursery and notify them that you have sent unit through the tube system.
14	If the unit on the other end does not pick up the unit within 5 minutes, the tube will return to the blood bank station and you must scan your badge to retrieve tube.
15	If Blood Bank Emergency Consent form sent for signature, leave a note for supervisor if not returned within 24 hours.
16	If non-emergent, continue to section 10.
17	If emergent, continue to section 9.

9. Post-Issue Functions for Emergent Transfusions

Step	Action
1	After issuing emergency units, testing for the crossmatches are automatically reflexed in Meditech.
2	Make sure there is a sample on the mother that is <72 hours old, 2 ABO/Rh types are in the system and the current sample has a completed antibody screen done.

If…	Then….
Mother's sample is >72 hours,	Request floor order GTS.
There is no sample on mother,	Request floor order GTS.
Only 1 ABO/Rh is in the computer,	Order ABO confirmation.
Current sample does not have an antibody screen completed,	Perform ABSCN on sample.
If mother has antibody history other than passive anti-D or allo anti-D,	• Notify the floor that the unit sent for the infant has not been tested for mother's antibody. • Retrieve segment from bag from the day the unit was received by the blood bank.

		• Test unit segement for the offending antigen if antisera available. • If antisera not available, send segment for antigen typing to reference lab after crossmatching.
3	Make sure there is a sample on the baby that is <72 hours old and appropriate newborn testing for that specimen is complete.	
	If…	**Then….**
	There is no sample,	• Request sample as soon as possible. • Continue to step 9.
4	Compare mother and baby samples to ensure that information on baby sample matches mom's.	
5	Print off 1 label for mother and 1 label for baby from Meditech.	
6	Attach both labels to a Patient Manual Testing Form.	
7	Somewhere near the mother's label, indicate her historical ABORh type.	
8	Somewhere near the infant's label, indicate it's historical ABORh type.	
9	Obtain mother's current sample for testing	
10	Retrieve tail segment for unit sent by locating the segment bag labeled to include the day the unit was received by Memorial blood bank.	
11	Record the donor unit number in the crossmatch section of the Patient Manual Testing Form by either writing it or affixing a donor unit label. See *Result Reporting* section for example.	
12	Under the donor unit number, indicate that the mother's plasma was used for this crossmatch. See *Result Reporting* section for example.	
13	In the "Markers, Attributes, Antigens" space, indicate that this is for an infant transfusion that was emergency released. See *Result Reporting* section for example.	
14	Perform a full crossmatch using the mother's plasma and the donor unit cells according to the Crossmatch SOP.	
15	Record the results on the Patient Manual Testing Form. See *Result Reporting* section for example.	
16	If at any point in testing the crossmatch is incompatible, immediately inform the physician and pathologist of the incompatibility.	
17	If baby's sample was not previously available and then it is received and routine testing is performed on it, perform steps 5-8 above. Then continue to step 17.	
18	Using the baby's information, order an ABRO in Meditech and cancel the GTS that was ordered during the emergency issue process. See SOP *Ordering tests in Meditech 6.0* for instructions.	
19	Result the ABRO on the baby as positive or negative to match the mother's current antibody screen. See *Result Reporting* section for example and instructions.	
20	The RBC order and crossmatch were already created when the unit was issued.	

21	Go into **BBK History** module and change the default crossmatch for the baby to a full crossmatch. See SOP *Crossmatching Red Cell Products* for instructions.
22	Enter the crossmatch results recorded on the Patient Manual Testing Form into Meditech on the unit order for the baby. See SOP *Crossmatching Red Cell Products* for instructions.
23	Continue to section 10

10. Finalizing paperwork

Step	Action
1	Create a manila file folder for manual testing documents using infant's information. See *Antibody Detection and ID* SOP for instructions.
2	Confirm that all associated tests in Meditech for mother and infant are in "COMP" status.
3	If Blood Bank Emergency Consent form was sent to floor, ensure that it has been returned or that follow-up has been performed and communicated to next shift.
4	Confirm that unit is in "ISS" or "TRFS" status in Meditech.
5	If transfusion reaction occurs, see appropriate SOP for instructions.
6	If unit is returned after issue, follow all applicable SOPs for return of unit.
7	Place all paperwork in review box.

Interpretation

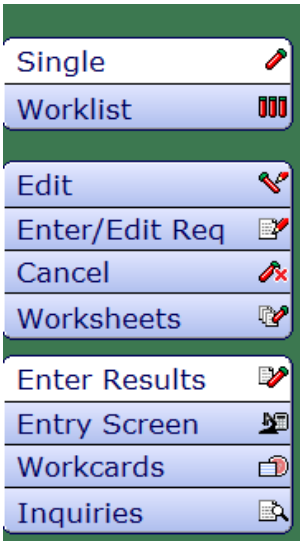
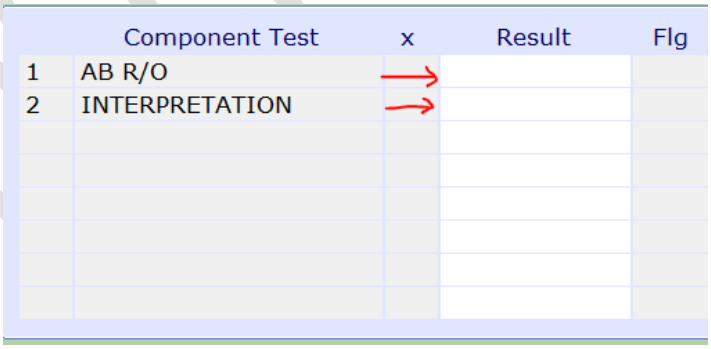
Notes:

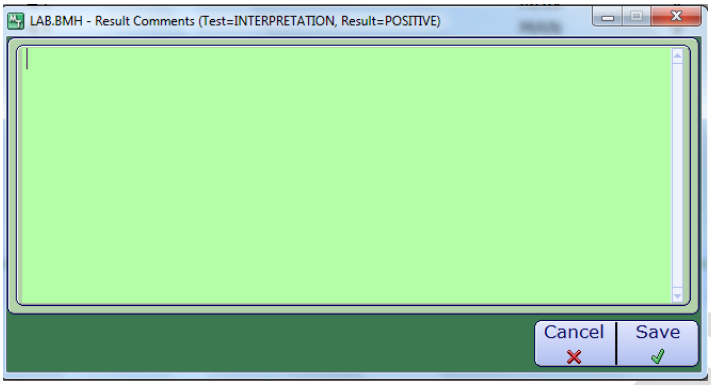
1. Full crossmatch for infants of mothers with negative antibody screens are not required, however, due to infrequency of this procedure being used, management has opted to be cautious and require full crossmatch.
2. The requirement of baby's sample <72 hours old is due to restraints of the Meditech system. Until an infant reaches 4 months of age, the immune system is too immature to produce antibodies to antigens it is exposed to during transfusion, therefore additional testing for additional transfusions is not necessary. In the event of an infant's lengthy admission that requires additional transfusions, another testing result with no associated sample or charges that includes disclaimers that the results were not tested but based on previous results in order to avoid additional drawn on small blood volume infant may be used at the discretion of the supervisor/manager and/or the pathologist.

Result Reporting

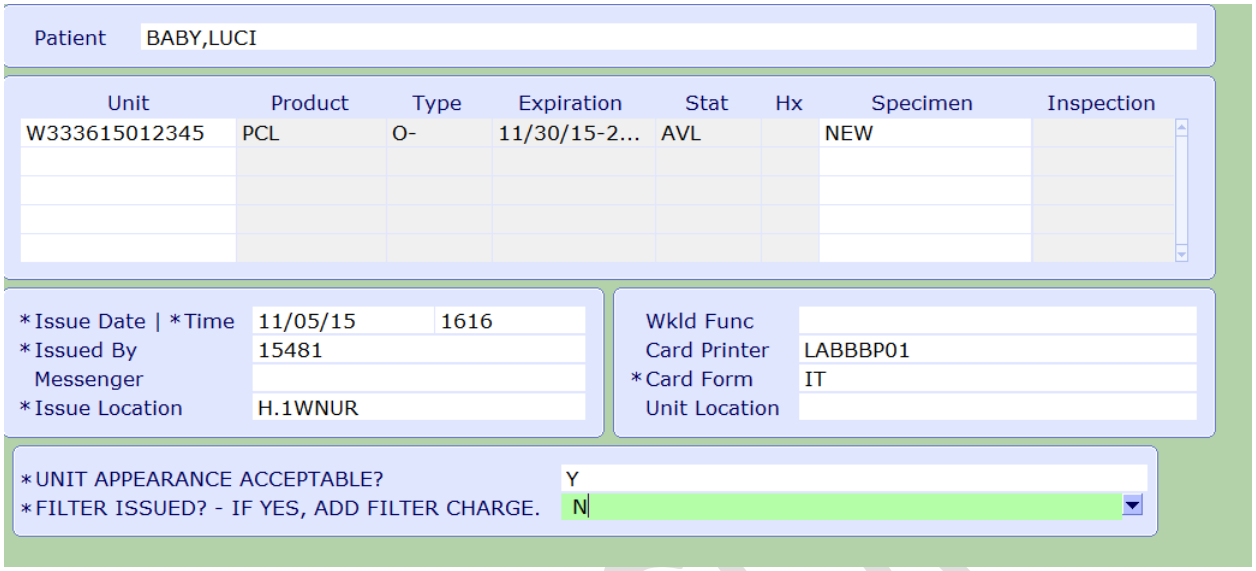
Reporting results in MCare

1. Entering ABRO on infant

Step	Action
1	Go to the **Specimen module** in the blood bank module.
2	Click on **Enter Results** 
3	In the **SPEC** field, type one of the following: a. The infant's name in the following format *Last Name,First Name* b. The infant's M number in the following format *U#MXXXXXXX* c. The specimen BB number
4	Select the correct patient by comparing all information available from the resulting list.
5	Select the correct admission by matching the H number on the specimen to the H number next to the infant's name in the list.
6	From the list of tests, choose the line that contains "ABRO".
7	Once in the results entry screen, place the cursor in the **AB SCREEN R/O** field and the following window appears at the bottom of the screen. 
8	Place your cursor in the **AB R/O** field and either press F9 for entry options, or type in "POS" or "NEG" depending on the mother's results on the current specimen.
9	The **INTERPRETATION** field will automatically populate with the entry from the previous field.
10	Place the cursor in the **INTERPRETATION** field and then click on **Comments** at the

	bottom of the screen.
11	The following dialog box will appear. 
12	Press F5 and then F9 for list of canned comments.
13	Add the canned comment **INFTRANS** and press F12 or click **Save**.
14	Then press F12 or click **Save** to save transaction.

Example of emergent issue of units screen



Reporting results on manual testing form.

Unit # Use Barcode if available	Unit Type	Crossmatch					Markers Attributes Antigens
		IS	37C	IgG	CK	IgG Method	
W333615015183 (Mother's plasma)	O Neg	0	NA	0	3+	PEG NEO ECHO LISS	Infant transfusion Compatible Incompatible

References AABB. *Standards for Blood Banks and Transfusion Services--30th Edition*. Std. 5.14, 5.14.1, 5.14.2, 5.14.3, 5.14.3.1, 5.14.3.2, 5.14.3.3, 5.14.3.4, 5.15, 5.15.3, 5.16, 5.16.1, 5.16.1.1, 5.17, 5.17.1.1, 5.17.1.2, 5.17.1.3, 5.22, 5.22.1, 5.23, 5.25, 5.27, 5.27.1, 5.27.2, 5.27.3, 5.27.4, 5.27.5, 5.27.5.1, Bethesda, MD: American Association of Blood Banks; 2015

Josephson CD, Meyer E. Neonatal and Pediatric Transfusion Practice. In: AABB. *Technical Manual--18th Edition*. Bethesda, MD: AABB; 2014: 571-591.

Related Documents

Appendix A: Unit Dating Chart
Appendix B: >10 days On Card
Appendix C: Infant Transfusion Flowchart
Appendix D: Emergency Consent Form-Example
Appendix E: Inspection Criteria for Blood Products

Appendix A: Unit Dating Chart

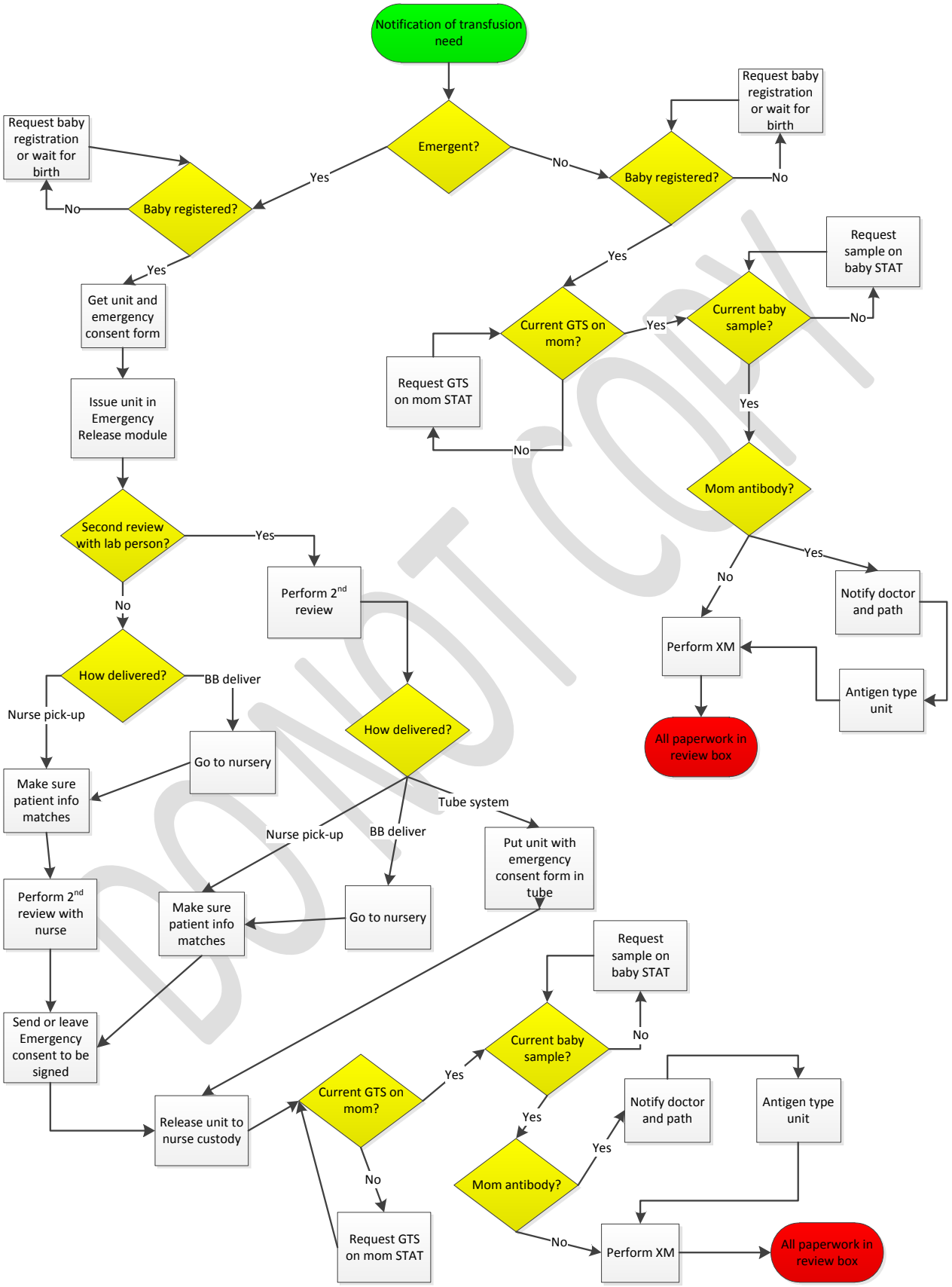
Instructions: Find the product code of the unit on the table below. Take the expiration date of the unit and subtract the corresponding number of days found in the "Calculation" column. The result is the collection date. Take the current date and subtract the collection date. The result is the age of the unit.
Example: Exp. 11/30/15 Product Code is E0336 Today's date: 11/1/15
(11/30/15-42 days)=10/19/15 (11/1/15-10/19/15)=13 days old
Alternative: is to open the "I" drive then open the excel spreadsheet called "Blood Bank Excel Apps". Go to the "Unit Date" tab and type in the product code and the expiration of the unit. The age is calculated for you.

Product	Product Code	Calculation
LR Red Blood Cells	E0181	-21 days
	E0209	-35
	E0226	-35
	E0311	-42
	E0336	-42
	E0401	-42
	E0424	-42
	E0678	-42
	E0685	-42
	E0686	-42
	E4531	-42
	E4532	-42
	E4533	-42
	E4543	-42
	E4544	-42
	E4545	-42
IRR LR Red Blood Cells	E0179	-21
	E0207	-28
	E0224	-28
	E0307	-28
	E0332	-28
	E0379	-21
	E0382	-21
	E0398	-28
	E0420	-28
	E0661	-28
	E0668	-28
	E0669	-28
	E4526	-28
	E4527	-28
	E4528	-28
	E4538	-28
	E4539	-28
	E4540	-28

Appendix B: >10 days Sticker

> 10 Days Old On:

Appendix C: Infant Transfusion Flowchart



Appendix D: Emergency Consent Form-Example

MEMORIAL

BLOOD BANK EMERGENCY CONSENT

Patient Name [redacted] MU [redacted] DOB [redacted]

EMERGENCY SITUATION

- [x] **Group O negative uncrossmatched red cells for an unknown blood type**
- [ ] **Group specific uncrossmatched red cells for patient with antibody screen/identification pending**
- [ ] **Group specific uncrossmatched red blood cells with incomplete unit testing**
- [ ] **Group AB plasma for an unknown blood type**
- [ ] **Incompatible crossmatch due to atypical antibody**
- [ ] **Rh positive red blood cells to an Rh negative patient**

Note: Units released from the Blood Bank with incomplete patient or unit testing will have all pretransfusion and compatibility testing completed as soon as possible. The requesting physician and blood bank Medical Director will be notified immediately if any incompatibility is detected.

If release is due to incompatible crossmatches, this form is valid until expiration of the blood bank specimen. Blood bank specimen will expire after 72 hours and new testing will be required.

Physician Approval/Signature for Emergency Release of Blood Products

I (we) as the physician(s) responsible for the care of the above patient direct the Blood bank to release the requested blood and/or blood products. To withhold transfusion of blood and/or blood products would jeopardize the life of the patient and, in my (our) judgment, the benefits of transfusion outweigh the risk.

Physician Signature [signature] Date 2/11/16 Time 1020

Physician Name (print) Matthew J. Koch

Signature of person authorized to sign on the physician's behalf

Signature [signature] Title [signature]

Date 2/11/16 Time 0446

Witness Signature [signature] Date 2/1/16 Time 0500

Do Not Write Below This Line

Appendix E: Inspection Criteria for Blood Products

Job Aid: Receipt/ Return of Product to MVRBC

Inspection

Products are to be inspected upon receipt and prior to returning to MVRBC.

Inspect the component to verify:

- Sealed closures
- Proper labeling
- Legible barcodes and volumes
- Label volumes are appropriate, if applicable
- Acceptable appearances:

If Shipping	Then Inspect For
Red Blood Cells	• Segments much lighter in color than that of the bag • Red cell mass that looks purple • Visible clots • Purple, brown, or red plasma • Zone of hemolysis above cell mass
Platelets	• Grossly visible red cell contamination • Fuzzy bacterial colonies • Grossly visible platelet aggregates
Frozen Products	• Evidence of thawing and refreezing • Evidence of breakage • Red cell contamination in the plasma or in the segment

If at any point the quality of the product is unacceptable, attach a quarantine tag to the product and contact the blood center.

Receipt

- Obtain the temperature of products using a calibrated thermometer.

Product	Acceptable Temperature
Red Blood Cells	1-10°C
Platelets	20-24°C
Frozen Products	≤ -18°C

- Inspect the units for acceptability.
- Per your facility's SOP, documents the temperature of the product, technologist receiving the product, and the date.

Return

- Remove any labels that have been attached to the product by your transfusion service.
- Inspect the units for acceptability.
- Pack product in MVRBC shipping cooler/ box:

Red Blood Cells

1.	Place units in bottom of cooler or box.
	Cooler Maximum: Rubbermaid – 20units; Coleman – 30 units
	Box Maximum: 30 units
2.	Place paper towel or newspaper over units.
3.	Place bag of wet ice, double bagged to prevent leakage, on top of paper towel/ newspaper.

Platelets

Random Donor Platelets Maximum	75 units
Single Donor Platelets Maximum	15 units
1.	Place a gel pack* on bottom of inner box.
2.	Wrap platelets in at least 3 sheets of bubble wrap.
3.	Wrap bundle in absorbent pad and place on top of gel pack.
4.	Place second room temperature gel pack* on top of platelet bundle.
5.	Fill air space with crumpled newspaper (as needed).
6.	Close inner box lid, then close outer box lid.

* Gel pack to be maintained at 20-24°C when not in use

- Document that products meet requirements for return by signing and dating the Return Shipment Packing Slip and enclose in box/ cooler for return.

PROCEDURE AND FORM CHANGE CONTROL

Title: Infant Transfusion										
Written		Validated		Path Review		Review		Effective		Reason for Revision
Date	By	Date	By	Date	By	Date	By	Date	By	
11/4/15	JLH	11/15/15	Multiple	1/5/16	ESB					New Procedure
REVISED										
4/15/16	JLH							4/25/16	JLH	New Header

Location of any copy(s) of the procedure:

Out of use:

Date:_____By:_____Reason:_____