TITLE:

# EMERGENCY DISPENSE OF RED BLOOD CELLS AND PLASMA

## PURPOSE

The following emergency dispense protocol is used in each of the following situations:

1. Dispensing ~~red~~ blood ~~cells~~ products prior to the performance and/or completion of standard pre-transfusion testing.
2. Dispensing apparent serologically incompatible red blood cells.

Once the physician has determined that the situation is such that the risk of transfusing the patient with incompatible red blood cells is less than the risk associated with the time delay that would occur to complete the required testing or to find serologically compatible units, the transfusing physician must explicitly request that the products be dispensed using the emergency dispense protocol.

## PROCEDURE

### INCOMPLETE TESTING

*If a pre-transfusion specimen is not available in the Blood Bank prior to release of any blood products, request that a sample be collected PRIOR to the infusion of any product. This will help ~~assure~~ ensure ~~that~~ compatibility testing is done using patient red blood cells and not a sample of mixed patient and recently transfused donor cells.*

### PRODUCT SELECTION

No Current Blood Type Available **O negative RBCs, AB Plasma**

- *~~Rh~~ O positive RBCs may be given, with pathology approval, IF the current inventory of O negative RBCs is ≤ 6 units or there are other extenuating situations which may require conservation of the existing O negative inventory. Consider switching to O Positive units when transfusing men 18 years of age and older, or women over the age of 55 more than four units of O negative. ~~The physician MUST be notified BEFORE O positive units are released.~~*
- *If an ~~Rh~~ D negative patient receives ~~Rh~~ D positive RBCs the pathologist must be notified. RhIG may be considered.*
    - ~~Blood Type Available Using Specimen From Current Admission Type specific units are used if there is a confirmatory type on record.~~ Once a blood type from the current admission is available, and a historical type is on record, type specific units may be released.
- If there is not a confirmatory type on record, **Group O RBCs of the appropriate ~~Rh~~ D type** must be given until a confirmatory type can be done.

1. Obtain the appropriate type and number of red blood cell units. Two trauma packs, each containing two O negative PRBC units, partially completed "Emergency Request for Blood" forms with Donation Identification Number (DIN) ~~BUI number~~ labels and unit segments attached are kept prepared and available in the stock inventory refrigerator. If requested, two unites of AB plasma are available thawed on the top shelf of the crossmateched refrigerator, they can be issued using the "Emergency Request for Blood" form.
    a. Fillout the form as completely as possible. Document who requested the blood as well as the date and time of request.
    b. Mark the processing deficiency triggering the use of the form.
    c. Fill out the DIN, Group/Rh and expiration date of the units used.

d. Prior to placing units in the cooler, inspect the unit for breakage, abnormal color, and correct labeling.

e. Complete the bottom portion to record the issue of the units. In a trauma situation, the units must be issued to an RN/LPN or another MT/MLT.

f. Lab staff will deliver cooler to the Trauma Rooms/ER only, and other units requiring emergency release, must send a courier.

g. The attending physician **must** sign the "Emergency Request for Blood" form. Due to the critical nature of an Emergency Release request, it may be impractical to obtain a physician's signature prior to the issue of blood products. In this case, ensure that a physician's signature is obtained as soon as possible.

h. If the patient's name is unknown, wait for the patient to be aliased and affix stickers to the bottom of all three copies of the form.

i. Leave the white and yellow copies of the form with the units, return the pick copy to the lab.

2. ~~If a trauma pack is not being used obtain a blank "Emergency Request for Blood" form and complete the required information (see attachment).~~

3. Remove a minimum of two (2) segments from each PRBC unit and label with the unit number.

4. If the units have not had a crossmatch completed. Attach an "UNCROSSMATCHED BLOOD" label to each unit.

5. If time and circumstances permit label each unit with the patient name and Blood Bank Band Identification number ~~before~~ prior to dispensing the product(s).

6. ~~If a courier is available to transport the product to the nursing unit release the product(s) to the courier. If a courier is not available it may be necessary for a laboratory employee to deliver the product(s) to the nursing unit. Units that cannot be dispensed to a RN/LPN must be checked by a second Medical Technologist (MT) prior to handing the product over to a courier. See Laboratory Guidelines of Practice #BLBK 751 "Dispensing Blood Products". The top two copies of the Emergency Request for Blood form goes to the nursing unit with the product(s). The yellow copy is retained in the Blood Bank until the final disposition of the unit is recorded in the computer, and the pink copy is placed in the QA emergency release folder.~~

7. After the product is physically dispensed and pre-transfusion testing is complete, document the product issue in Cerner using the "Assign/Dispense" application:

   Note: If a positive antibody screen or an incompatibility in any phase of the history check or crossmatch is detected, the transfusing physician must be notified immediately so that infusion of the unit can be prevented or discontinued. Document physician notification with time and date in the Cerner Blood Bank comments. This can be done in "Patient Product Inquiry" or in "Result Entry" by clicking on the comment icon. If infusion of any amount of incompatible blood product occurred the pathologist **must** also be notified immediately.

   a. Select the "~~Emergency~~ Dispense" icon from the task menu.

   b. ~~Type in the patient's ID (trauma name, Blood Bank ID, or other identifier) in the appropriate box.~~ Search using the patient's FIN.

   c. ~~<Enter> through the date and time.~~ Select the Back date check box and enter the time and date the blood was dispensed according to the Emergency Request for Blood Components.

   d. Barcode or type the ~~unit identification numbers~~ DIN into the product number field of the spreadsheet ~~and click <Save>~~.

   e. The "Blood Bank Exception" dialogue box stating: "Product xxx requires a crossmatch and should not be dispensed" will appear. Under Override, select "Yes to all" and under reason select "Emergency." The "Blood Bank Exception" dialogue box will appear again, stating: "Product xxx is of an unmatched group and type and should not be dispensed." Under

Override, select "Yes" and under reason select "Emergency." For plasma products, only the second exception may appear.

f. Repeat as necessary.

g. Select the "Save" button from the task menu.

h. The "save" dialogue box will appear. ~~Enter physician, reason, location, and as much additional information that you have. Unit labels will print~~

~~NOTE: if a trauma name is used to dispense blood products the following steps are required once the patient's real name and medical record number are available:~~

~~1) From the "Correct Inventory" application choose the "Emergency Dispense" functions.~~

~~2) Barcode the units dispensed from the Emergency Dispense paper into the product number field.~~

~~3) Type in the patient's name in the update with patient information field. Verify the medical record number and birth date and click <save>.~~

i. If the physician name has not defaulted into the "Physician" filed, type in the beginning letter(s) of the physician's last name and select the correct physician from the dropdown list.

j. Select the reason for transfusion, Emergency.

k. Complete the "Visual Inspection" field.

l. Type the second, verifier's initials and their Lawson number into the "Courier" field (RN/LPN, MT, etc. depending on the circumstances).

m. Enter in the cooler identification number into the "Cooler" field.

n. If a Blood Bank armband number is available, enter the Blood Bank armband number into the "Blood Bank ID field. If a Blood Bank armband number is unavailable enter N/A.

o. Once trauma is complete and cooler (if used) is returned, all units that were transfused need to be undated in the computer.

1) Choose the "Final Disposition" option on the App bar.

2) Ensure task is set to transfuse.

3) Barcode or key Donation numbers from the Emergency Dispense paperwork.

4) Select "Save" to save changes.

p. If products are returned unused, use the "Return Products" application to document the return of the units into inventory.

1) The return date and time will default to the current time, backdate if necessary.

2) Select the appropriate Return Reason.

3) Inspect the units for breakage, abnormal color and correct labeling. Verify the temperature indicator indicates unit is ≤ 10°C. Select the appropriate inspection description.

4) Enter the courier initials and Lawson number, if available, if unavailable, a brief description of the courier is sufficient, i.e. nurse, PCT, etc.

5) Scan the Product Blood Unit Identification Number.

6) If the temperature indicator was acceptable, the temperature may be entered as ≤ 10, ensure the degree drop down defaults to Celsius.

7) Select "Save."

q. In the event the cooler field was not completed during the dispense process, the units will need to be released from Quarantine using the "Quarantine Products" application.

1) Select the "Release Product" mode.
2) Scan the DIN.
3) Select a Quarantine Release reason, "Cooler user".
4) Select "Save."

8. If no pre-transfusion specimen was obtained, document the reason why, i.e., patient transferred, patient expired, etc. as a Blood Bank Comment in Cerner as well as on the Emergency Release form ~~Complete all of the required pre-transfusion testing as soon as possible.~~

~~*NOTE: If a positive antibody screen or an incompatibility in any phase of the crossmatch is detected the transfusing physician must be notified immediately so that infusion of the unit can be prevented or discontinued. Document physician notification with time and date in the Cerner Blood Bank comments. This can be done in "Patient Product Inquiry" or in "Result Entry" by clicking on the comment icon. If infusion of any amount of incompatible blood product occurred the pathologist must also be notified immediately.*~~

APPARENT SEROLOGICAL INCOMPATIBILITY DUE TO THE PRESENCE OF AN AUTOANTIBODY

PRODUCT SELECTION

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|---|---|
| Patient's Phenotype Is Known | Give ABO and Rh compatible units that are phenotypically matched for at least the following antigens:<br>C, c, E, e, K, ~~Jk$^a$~~<br>It is preferable to also match for Jk$^a$, ~~Jkb,~~ Fy$^a$, ~~Fyb~~, but transfusion should not be delayed while trying to match for these antigens. |
| Patient's Phenotype Is Unknown | Crossmatch a minimum of 10 units through the AHG phase for every 2 units to be transfused.<br>Select the 2 units with the weakest positive reaction at AHG. |

RELATED DOCUMENTS — Emergency Request for Blood Downtime (LB-011-2)

REFERENCES — ~~Laboratory Guidelines of Practice #BLBK 751 "Dispensing Blood Products"~~

AABB Technical Manual, ~~17th~~ 18th Edition, ~~2011~~ 2014, pp. ~~287-289, 457-458, 577-578, 627~~ 227-228, 385-286, 506-507, 555-556.

Standards for Blood Banks and Transfusion Services, ~~27th~~ 30th Edition, ~~2011~~ 2014, pp. ~~30, 40-41~~ 43-44.