Lab Med Report

A PUBLICATION OF:
MUNSON HEALTHCARE LABORATORIES
GRAND TRAVERSE PATHOLOGY, PC
PHYSICIAN'S DIAGNOSTIC SUPPORT SERVICE

IN THIS ISSUE: Educational Notices from Munson Blood Bank

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William A Kanner MD

There are two educational notices from the blood bank.

The first concerns our policy for the transfusion of least incompatible and incompatible blood. This policy will typically be preferred over the biologic crossmatch.

The second concerns the new drug, Daratumumab and its effects on blood bank testing. If you are taking care of a patient on this drug, please inform the blood bank asap.

Dr. Kanner, the blood bank director, is available to answer any questions (wkanner@mhc.net)

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Michigan Blood
MI blood saves lives.

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Memo

To: Hematology-Oncology clinicians

From: Michigan Blood

Date: February 18, 2016

Re: Transfusion issues with daratumumab (Darzalex)

As anti CD38 agents like daratumumab (Darzalex) begin to be used as treatment for Multiple Myeloma (MM), it is important to keep in mind that this drug may cause serologic interference with red cell testing.

Like the multiple myeloma B cells, red blood cells (RBCs) also carry the CD38 antigen but at a much lower density. Patients on anti CD38 agents like daratumumab will have panreactivity in blood bank testing and this reactivity may last up to 6 months after the drug is discontinued.

To avoid problems while on this therapy, it is advisable to have ABO/Rh testing, antibody screening and a full RBC phenotype/genotype done PRIOR to starting daratumumab treatment

In addition, when ordering RBC transfusion, it is important to alert the blood bank of the patient's treatment with daratumumab. Serologic interference will add some extra work/time to availability of RBCs for transfusion; however, the interference can be resolved with special treatment of the reagent cells.

Although severe hemolysis has not been reported, please keep in mind that because CD38 is present on normal RBCs, there may be a mild (1mg/dl) drop in the treated patient's hemoglobin. Please help us provide better care for your patients by performing the appropriate testing prior to starting a patient on anti-CD38 treatment and communicating the use of that treatment to the blood bank.

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AUTORIZATION FOR TRANSFUSING INCOMPATIBLE / LEAST INCOMPAT RED BLOOD CELLS

On rare occasions it may not be possible for the Blood Bank to provide Red Blood Cells that are serologically compatible with the recipient. The pathologist will inform the patient's Physician/Health Care Provider when an incompatibility is identified. In these cases the pathologist and the patient's Physician/Health Care Provider have assessed the need for transfusion against the possible risks of transfusion and determined need for transfusion to be greater than the risk. The patient's Physician/Health Care Provider will sign for the incompatible Red Blood Cells and therefore accepts responsibility for the administration of the unit.

Patient Name: _____

Medical Record Number: _____

Consulting Pathologist: _____

Consulting Pathologist Signature: _____ Date:_____ Time: _____

Physician/Health Care Provider accepting responsibility for administration of incompatible / least incompatible Red Blood Cells:

_____ Date: _____ Time: _____

RESPONSIBLE PHYSICIAN / HEALTH CARE PROVIDER TO SIGN AND RETURN THIS FORM TO BLOOD BANK TUBE STATION #325.

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TRANSFUSING INCOMPATIBLE / LEAST INCOMPATIBLE RED BLOOD CELLS INSTRUCTIONS FOR TRANSFUSIONISTS

On rare occasions it may not be possible for the Blood Bank to provide Red Blood Cells that are serologically compatible with the recipient. The pathologist will inform the patient's Physician/Health Care Provider when an incompatibility is identified. In these cases the pathologist and the patient's Physician/Health Care Provider have assessed the need for transfusion against the possible risks of transfusion and determined need for transfusion to be greater than the risk. The patient's Physician/Health Care Provider will sign for the incompatible Red Blood Cells and therefore accepts responsibility for the administration of the unit.

Start the transfusion slowly

- If patient condition permits, start the transfusion slowly at one ml per minute for the first 15 minutes
- Observe the patient constantly for symptoms and signs of a reaction
- Take vital signs prior to starting transfusion, after the first 5 minutes, 15 minutes, 30 minutes and after the completion of transfusion

If no symptoms or signs of transfusion reaction are noted after 30 minutes

- Proceed with the transfusion and monitor the patient per usual transfusion practices.
- Repeat the entire process for each incompatible/least incompatible Red Blood Cell unit transfused.

If there is evidence of a transfusion reaction

- Stop the transfusion
- Initiate Transfusion Reaction Workup
- See Transfusion Therapy and Transfusion Reaction Policy 070.030
- See Transfusion Reaction Investigation Form 2874

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PROCEDURE: TRANSFUSING INCOMPATIBLE / LEAST INCOMPATIBLE RED BLOOD CELLS

COMPUTER TEST CODE & (OTHER ASSOCIATED TEST CODES): (NONE)

METHOD: Not applicable

INSTRUMENT/EQUIPMENT: Not applicable
REFERENCES: Not applicable

PRINCIPLE:
Transfusion of Cross Match-Incompatible Blood

On rare occasions it may not be possible for the Blood Bank to provide Red Blood Cells that are serologically compatible with the recipient. The Pathologist will inform the patient's Physician/Health Care Provider when an incompatibility is identified. In these cases the pathologist and the patient's Physician/Health Care Provider have assessed the need for transfusion against the possible risks of transfusion and determined need for transfusion to be greater than the risk. The patient's Physician/Health Care Provider will sign for the incompatible Red Blood Cells and therefore accepts responsibility for the administration of the unit. A signed authorization form must be present in the blood bank before blood product will be available for release to the patient, unless the product is for emergency release (in which case the form can be signed and returned as soon as possible.

SPECIMEN: Not applicable

REAGENTS/MATERIALS: Not applicable.

CALIBRATION: Not applicable

QUALITY CONTROL: See daily quality control for blood bank

PROCEDURE:

1. There must be documented consultation between clinical and pathology physicians indicating the need for transfusion to be greater than the risk. Form Authorization for Transfusing Incompatible / Least Incompatible Red Blood Cells will be filled out.
2. Nursing will follow standard operation procedure for procuring the blood from the blood bank.
3. All pre-transfusion checks will be performed prior to starting the transfusion.
4. Make copy of signed authorization, place one copy in the patient's blood bank folder and place the other copy in file folder by platelet incubator. There is a file labeled, "AUTHORIZATION".
5. Notify blood bank staff via email when there is a patient being transfused with least incompatible/incompatible packed cells.
6. Each unit will be issued with the instructions: Transfusing Incompatible/Least Incompatible Red Blood Cells.

Start the transfusion slowly:

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- Observe the patient constantly for symptoms and signs of a reaction.
- Take vital signs prior to starting transfusion, after the first 5 minutes, 15 minutes, 30 minutes and after the completion of transfusion.

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HAZARDS AND DISPOSAL OF HAZARDOUS MATERIALS:

1. Samples and controls contain human blood components. No known test method can offer complete assurance that products derived from human blood will not transmit infection. Therefore all blood derivative's should be considered potentially infectious. Follow standard laboratory procedure for the disposal of reagents, controls, blood and body fluids. See Safety Manual.
2. Personal Protective Equipment Required: See Safety Manual - Biological Safety Section