# Applicable Laboratory(s)):

North Carolina Baptist Hospital (NCBH)

Lexington Medical Center (LMC)

Davie Medical Center (DMC)

Wilkes Medical Center (WMC)

High Point Medical Center (HPMC)

Westchester

Clemmons

# Procedure Statement

The purpose of this policy is to outline the requirements for ABO/RH determination on patients with NO prior ABO/RH history.

# Scope

i. Protocol owner/Implementer: Emmanuel Fadeyi

ii. Protocol prepared by: Julie H. Simmons

iii. Who performs protocol: Department staff/management

# Definitions

1. Policy: As defined in the Policy on Creating and Amending Policy, a statement of principle that is developed for the purpose of guiding decisions and activities related to governance, administration, or management of care, treatment, services or other activities of WFBH.  A policy may help to ensure compliance with applicable laws and regulations, promote one or more of the missions of WFBH, contain guidelines for governance, and set parameters within which faculty, staff, students, visitors and others are expected to operate.
2. WFBH Lab System: Wake Forest Baptist Lab System is a health system that includes Wake Forest Baptist Medical Center and all affiliated organizations including Wake Forest University Health Sciences (WFUHS), North Carolina Baptist Hospital (NCBH), Lexington Medical Center (LMC), Davie Medical Center (DMC), Wilkes Medical Center (WMC), High Point Medical Center (HPMC), Lab at Westchester and Lab at Clemmons.
3. TSX: Type and Screen
4. SCC: Blood Bank computer system
5. AABB Standards:

**5.11 Samples and Requests**

Identifying information of the patient and the sample shall correspond and be confirmed at the time of collection using two independent identifiers.

**5.14.1 ABO Group**

The ABO group shall be determined by testing the red cells with anti-A and anti-B reagents and by testing the serum or plasma for expected antibodies with A1 and B reagent red cells. If a discrepancy is detected and transfusion is necessary before resolution, only Group O Red Blood Cells shall be issued.

**5.14.5 Pretransfusion Testing for Allogeneic Transfusion of Whole Blood, Red Blood**

**Cell, and Granulocyte Components**.

There shall be two determinations of the recipient’s ABO group as specified in Standard 5.14.1. The first determination shall be performed on a current sample and the second determination by one of the following methods:

1. Comparison with previous records
2. Testing a second sample collected at a time different from the first sample, including a new verification of patient identification.
3. Retesting the same sample if patient identification was verified using a validated electronic identification system.

Standards 5.11 and 5.27.1 apply.

**5.27.1** Recipients whose ABO group is not known or has not been confirmed shall receive

group O Red Blood Cells or low-titer group O Whole Blood.

1. CAP Checklist

**TRM.30575 Misidentification Risk**

The facility has a system to reduce the risk of mistransfusion for non-emergent red cell

transfusions.

NOTE: Mistransfusion occurs from misidentification of the intended recipient at the time of

specimen collection for pretransfusion testing, during laboratory testing and preparation of

units to be issued, and at the time of transfusion. Misidentification at sample collection occurs

approximately 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.

Risk reduction options that might be considered include:

● Verifying the ABO group of the intended recipient on a second sample collected

at a separate phlebotomy (including the recording of the result in the institution's

historical record)

● Utilizing a mechanical barrier system

● Utilizing an electronic identification verification system that ensures that the

patient from whom the pretransfusion specimen was collected is the same

patient who is about to be transfused

● Other approaches capable of reducing the risk of mistransfusion.

The laboratory is expected to participate in monitoring the effectiveness of the system that it

implements.

The laboratory should also consider improvements in procedures and/or educational efforts as

part of its program to reduce the risk of mistransfusion.

# Policy Guidelines

1. Content
2. Potential recipients of red blood cells, low titer whole blood or granulocytes should have two Group/types documented before the issue of NON Group O packed cells, low titer whole blood or granulocytes per AABB Standard 5.14.5.
3. The first should be the current sample and the second can be either historical, a second sample collected at a different time with verification of patient identity or testing of the same sample IF patient identification was verified with an electronic identification system.
4. Inpatient phlebotomists use the electronic identification system.
5. Outpatient phlebotomists and nursing do NOT use the electronic identification system.
6. Recipients who type Group O, A, B, or AB on the first sample AND are collected by inpatient phlebotomist may have the current sample repeated by a second technologist or other instrument with a different suspension since they are collected using an electronic identification system. SCC Test: ABO2
7. Recipients who were **NOT** collected by inpatient phlebotomy with the electronic verification system should have a second sample obtained so that the ABO/Rh can be repeated.
8. The second sample can be obtained from Core Lab if collected at a different time (either before/after) the collection time of the current Blood Bank sample.
9. If Core Lab sample is available, then the technologist will request the sample be sent using a Blood Bank Request for Hematology Sample Form.

*Refer to BB-FORMS-0237*

1. If no Core Lab sample is available, then the technologist will place the PRCEXM order STAT in Wake One.
   1. Blood Bank tech will call the floor and alert the provider that an ABO2 is required, has been ordered, and a tube is on the way to be used for collection of the specimen.
   2. Blood Bank will stock 2mL pink top tubes and send them to the floor. No other location should stock this product.



* 1. Current floors utilizing this process: Adult ED

1. The current sample may be repeated and resulted in the ABOEO test in SCC by a different tech or instrument to permit electronic crossmatch of Group O red cells until a second acceptable sample is obtained.
2. The fake antibody ‘<2ABO’ (*Give O RCs until 2nd ABORh*) will be put into SCC to alert that Group O red blood cells, low titer whole blood or granulocytes must be transfused until receipt of second separate specimen.
3. Only Group O red blood cells, low titer whole blood or granulocytes may be issued until a second separate specimen is received and tested. Use ‘canned comment’ (NO2AB) at issue when exception is received to document Group O red blood cells were issued. The provider must sign the Blood Product Release form.
4. If blood is needed BEFORE the second sample is received for a non inpatient phlebotomy collection, the current sample can be retyped with the ABOEO test by a second tech or other instrument in order to electronically crossmatch Group O red cells.
5. Complete a Blood Product Release form to be signed by the provider.
6. The PRCEXM test will be ordered, collected, and received in Wake One by Front Desk technologist when the sample is received from Core Lab.

1. The PRCEXM will be received in SCC and then testing performed. The PRCEXM is mapped to the ABO2 test in SCC.
2. If a sample is received from surgery and the patient does not have a prior history, notify surgery immediately that additional sample is needed. Do NOT wait for testing to be completed.
3. The second ABORh forward/reverse (ABO2) will be performed and resulted.
4. Once the ABO2 test has been performed, then the fake antibody ‘<2ABO’ may be removed and the patient can receive group specific red blood cells.
5. NOTE: The separate ABO2 (PRCEXM) should be expired at this time. Enter one day prior to collection date to prevent products from attaching to this order in SCC.
6. During BEAKER downtimes, a second sample obtained from a different phlebotomy should be obtained since the electronic identification system cannot be used.
7. Audits will be performed monthly to verify that a second separate ABO has been obtained appropriately.
8. Audits will be located in the Quarterly QC folders.

# References

# Related policies/procedures (navex)

ABO Rh Protocol

ABO Testing Manual Method

Crossmatch Protocols

# Attachments/Linked documents (title 21)

Flow Chart for No History Patients with Potential Transfusion of Red Blood Cells, Low Titer Whole Blood or Granulocytes

SBAR notifications

# Revision Dates: Review Change Summary as represented in Title 21.