

O Rh Negative Tips from Your Coach Time for Practice!

Think Positive

Case 1

A 58 year old male with an aortic aneurysm is admitted and scheduled for surgery later this evening. Two units of leukocyte-reduced red blood cells (LRBC) are ordered for the procedure. You have no record of this patient. He types as group A Rh Positive and the antibody detection test (screen) is negative. Your hospital policy requires a second sample be drawn when you have no previous record. While waiting for the second sample you receive a STAT request for 2 LRBCs because the patient has started to bleed. You explain you are waiting for the second type but the floor needs blood NOW!

What ABO group, Rh type would you issue?

Case 2

A 19 year old African American female with sickle cell disease comes in to the Emergency Department in pain crisis. Her hemoglobin is 5.7 g/dl. One unit LRBC is ordered for transfusion. A review of blood bank records shows she is group B Rh Positive. Your hospital policy is to provide Rh and K matched LRBCs for transfusion. Her phenotype is C+E-c+e+; K-. The current ABO, Rh type confirms she is B Rh Positive and her antibody detection test (screen) is negative.

What ABO group, Rh type would you select for antigen typing?

Case 3

There is a 45 year old Caucasian male who sustained multiple injuries in a motor vehicle accident and just arrived in the Emergency Department. The first trauma cooler was issued with 4 group O Rh Negative LRBCs. A sample is received and you find the patient is group O Rh Negative. An additional 4 units of LRBCs are issued and then you receive a call from the Trauma Team that they are initiating a Massive Transfusion Protocol (MTP).

What ABO group, Rh type would you consider issuing?

Case 4

The lab manager is aware of the increasing demand for O Rh Negative RBCs with declining supply and decides it is time to evaluate the use of O Rh Negative RBCs across their system of hospitals. The flagship medical center is a 300-bed tertiary care facility with a level 2 trauma center. There is 1 refrigerator in the operating room for storing blood products ordered for scheduled surgical procedures.

There are 4 acute care facilities, each with <50 beds, each keeps approximately 40 RBC units and provides products for both inpatient and outpatient transfusions. The lab at the small hospitals perform ABO/Rh testing but all antibody ID is sent to the flagship hospital. In addition, an off-site outpatient surgery center has 2 O Rh Negatives in a refrigerator at all times.

What factors should be considered in determining how many O Rh Negative RBCs should be available at each location?

What can be done to manage the supply of O Rh Negative RBCs across the system?

Do you know ABO?

Case 5

You receive a STAT request for 4 units of LRBCs for a 72 year old female with a GI bleed. She types as group A Rh Positive but her antibody detection test (screen) is positive. Blood bank records show she is A Rh Positive with no antibodies detected. While you are working on the antibody identification the patient's physician calls wanting the blood NOW and does not care about the antibody. You call the Transfusion Service medical director who approves emergency release LRBCs.

What ABO group, Rh type should you issue?

If a Guy, Don't Cry!

Case 6

A 36 year old Caucasian male is brought to the ED as a result of a farming accident. He is bleeding profusely and the trauma cooler has been sent with 4 O Rh Negative LRBCs. You receive a sample and find he is group A Rh Negative with a negative antibody detection test (screen). There is no previous type in the computer. He continues to bleed and the request comes for 4 additional units and a warning they are going to need more.

What ABO group, Rh type would you issue first?

If additional LRBCs are needed and you are 4 hours from your blood supplier what would you select next?

Case 7

A massive transfusion protocol has been called for a 48 year old male who has been admitted to ED with a gunshot wound. You have no record of this patient in your transfusion service laboratory information system.

What ABO group, Rh type would you consider issuing?

If Older, Think Bolder!

Case 8

A 67 year old female who is group O Rh Negative is undergoing open heart surgery. You have already issued 6 units of O Rh Negative LRBCs and a panicked call from surgery says "Things aren't going well" and they are requesting 6 more LRBCs.

What ABO group, Rh type would you set-up next?