



LB.64.1.2 Only Rh-D negative red blood cell components are transfused to Rh-D negative patients.

LB.64.1.3 Identification of the conditions for the release of Rh-D positive red blood cells components to Rh-D negative patients.

LB.64.1.4 If the patient has current or previous history of clinically significant antibodies in the patient serum, the selected red cells must lack the corresponding antigen(s).

LB.64.2 There are policies and procedures for the selection of plasma components for transfusion to ensure the following:

LB.64.2.1 The selected plasma component is ABO group-specific or ABO group-compatible with the recipient's RBC.

LB.64.2.2 Conditions for the release of ABO-incompatible plasma are identified.

LB.64.2.3 In the presence of clinically significant antibody in the donor's plasma, the recipient red cells must lack the corresponding antigen.

LB.64.2.4 If the plasma components are visually contaminated with red blood cells (more than 2 ml of RBC), RBC selection criteria apply.

LB.64.3 There are policies and procedures for the selection of blood/blood components for patients with special requirements that address the following:

LB.64.3.1 The use of leukocyte-reduced cellular blood components.

LB.64.3.2 The use of irradiated-cellular blood components.

LB.64.3.3 Transfusion of known Hemoglobin-S patients.

LB.64.3.4 Massive transfusions.

#### **Standard Intent:**

Whenever possible, patients should receive ABO-identical blood; however, it may occasionally be necessary to make alternative selections. If the component to be transfused contains 2 mL or more of red cells, the donor's red cells must be ABO-compatible with the recipient's plasma.

D-positive blood components should routinely be selected for D-positive recipients. D-negative units will be compatible but should be reserved for D-negative recipients. D-negative patients (especially females of childbearing potential) should receive red-cell-containing components that are D negative to avoid immunization to the D antigen and possible HDFN. When ABO-compatible D-negative components are not available for a D-negative recipient, the medical director of the blood bank and the patient's physician should weigh alternative courses of action. Depending on the childbearing potential of the patient and the volume of red cells transfused, it may be desirable to administer Rh Immune Globulin (RhIG) to a D-negative patient who is given D-positive blood.



Antigens other than ABO and D are not routinely considered in the selection of units of blood for nonalloimmunized patients. If the patient has a clinically significant unexpected antibody(ies), blood lacking the corresponding antigen(s) should be selected for crossmatching. When crossmatch-compatible units cannot be found, the medical director of the transfusion service should be involved in the decision on how to manage the patient's transfusion needs.

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#### **LB.65 The transfusion services establish a process for compatibility testing.**

- LB.65.1 There is a process to ensure the detection of ABO incompatibility between the recipient's serum/plasma and the donor's RBC.
  - LB.65.2 The process ensures the compatibility testing is performed on integrally attached segment from the donor's RBC unit.
  - LB.65.3 The process ensures the checking for presence, now or in the past, of clinically significant antibody in the patient's serum.
  - LB.65.4 The process ensures the proper labeling of cross-matched units with patient's name, patient's identification number and patient's ABO /Rh-D.
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#### **Standard Intent:**

Unless there is an urgent need for blood, a crossmatch must be performed before a red cell transfusion. When clinically significant antibodies are not detected in current antibody detection tests and there is no record of previous detection of such antibodies, then a method is required that at least detects ABO incompatibility, such as an immediate spin (IS) or computer/electronic crossmatch (the antiglobulin test may be omitted).

When a patient has a clinically significant antibody identified currently or historically, even if the antibody is presently nonreactive, RBC lacking relevant antigens should be selected for transfusion and the crossmatch must include incubation at 37 C and the AHG test.

A tag or label indicating the recipient's two independent identifiers, Patient's ABO / Rh-D and the compatibility test interpretation, must be attached securely to the blood container.