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**ABO AND RH CONSIDERATIONS WHEN TRANSFUSING PLASMA OR PLATELETS**

Provided by LifeServe Blood Center’s Medical Department

This document discusses ABO and Rh considerations and gives general guidelines when transfusing plasma and platelets.\*

NOTE: For pediatric patients, use type-specific plasma or platelet units when possible

1. **PLASMA**
	1. ***Rh-matching is not necessary for plasma transfusions***
	2. ABO-MATCHING
		1. Known recipient blood type:

|  |  |  |
| --- | --- | --- |
|  |  | **PLASMA CHOICE** |
|  |  | #1 | #2 | #3 | #4 |
| **RECIPIENT** | O | O | A | B | AB |
| A | A | AB | Contact Blood Bank Medical Director\* |
| B | B | AB |
| AB | AB |  |

* + 1. Unknown recipient blood type:
			1. Usually in an emergent situation, e.g. trauma
			2. Numerous studies have demonstrated that type-A plasma is safe for transfusion during trauma

|  |
| --- |
| **PLASMA CHOICE** |
| #1 | #2 | #3 |
| A or AB | B | O |

1. **PLATELETS**
	1. Rh-MATCHING
		1. Although platelets do not express Rh antigens, platelet products contain a small number of red blood cells
		2. It is very unlikely that an anti-D antibody will be formed in a Rh-negative recipient who receives Rh-positive platelets
			1. ***Because of this risk, Rh-negative platelets for premenopausal, Rh-negative females should be considered***
			2. If Rh-negative platelets are strongly desired for other recipient populations then they may be provided
		3. If Rh-negative platelets are unavailable for a Rh-negative recipient then Rh immune globulin (RhIg) may be given before the transfusion
			1. RhIg has a 3 week half-life therefore a single dose should provide prophylaxis for multiple transfusions over a 2 to 4 week period
	2. ABO-MATCHING
		1. Platelets have ABO antigens however, due to inventory constraints, it is difficult for facilities to consistently provide ABO-identical units for all recipients, therefore this has rarely been standard practice
		2. Transfusion of non-ABO-identical platelets may potentially result in a lower post transfusion platelet increment, but it is generally not clinically significant
		3. If ABO-compatible platelets are requested, then use the following table:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | **PLATELET CHOICE** |
|  |  |  | #1 | #2 | #3 | #4 | #5 | #6 | #7 | #8 |
| **RECIPIENT** | O Pos | All | OPos | ONeg | BPos | BNeg | APos | ANeg | ABPos | ABNeg |
| O Neg | MalesPostmenopausal Females |
| Premenopausal Females | ONeg | BNeg | ANeg | ABNeg | OPos | BPos | APos | ABPos |
|  |  |  |  |  |  |  |  |  |  |  |
| **RECIPIENT** | A Pos | All | APos | ANeg | OPos | ONeg | BPos | BNeg | ABPos | ABNeg |
| A Neg | MalesPostmenopausal Females |
| Premenopausal Females | ANeg | ONeg | BNeg | ABNeg | APos | OPos | BPos | ABPos |
|  |  |  |  |  |  |  |  |  |  |  |
| **RECIPIENT** | B Pos | All | BPos | BNeg | OPos | ONeg | APos | ANeg | ABPos | ABNeg |
| B Neg | MalesPostmenopausal Females |
| Premenopausal Females | BNeg | ONeg | ANeg | ABNeg | BPos | OPos | APos | ABPos |
|  |  |  |  |  |  |  |  |  |  |  |
| **RECIPIENT** | AB Pos | All | ABPos | ABNeg | APos | ANeg | BPos | BNeg | OPos | ONeg |
| AB Neg | MalesPostmenopausal Females |
| Premenopausal Females | ABNeg | ANeg | BNeg | ONeg | ABPos | APos | BPos | OPos |

* + 1. If a recipient’s blood type is unknown, e.g. an emergent situation, then use the following table:

|  |  |
| --- | --- |
|  | **PLATELET CHOICE** |
|  | #1 | #2 | #3 | #4 | #5 | #6 |
| **Females < 50 Y** | A or ABNeg | BNeg | ONeg | A or ABPos | BPos | OPos |
| **Males****Females > 50 Y** | A or ABPos or Neg | BPos or Neg | OPos or Neg |  |  |  |