Sutter Health
Sutter Roseville Medical Center

Origination:	*N/A*
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Owner:	*Nadera Poirier: Spvr, Transfusion Services*
Policy Area:	*Lab - Transfusion Service*
References:	
Applicability:	*Sutter Roseville Medical Center*

Performing a Rh Blood Type by Tube Method TS.ANA 10.17-RV

Performing a Rh Blood Type by Tube Method

Purpose	This procedure describes how to perform an Rh blood type.
Policy	An Rh Type and ABO group must be performed on each crossmatch specimen, on each admission when FFP is requested and on all patients without a historical blood type when requests for other components are requested. Weak D (Du) testing must be performed on all patients with negative D results in the following situations: • Cord Blood/Neonate <7 days old • Fetal Bleed evaluation • Allogeneic BMT (Bone Marrow Transplant) recipient/donor

Equipment/ Reagents/ Supplies		
Equipment	**Reagents**	**Supplies**
• Centrifuge • Agglutination viewer	• Anti D • ABO+Rh Control	• Test tubes • Test tube rack • Disposable pipettes

Specimen Requirements	• Adults: One (1) 10 ml EDTA stoppered tube (preferred) or red stoppered tube without separator gel- minimum of 3ml. • Infants: Two EDTA microtainers or 1.0 ml EDTA or red stoppered tube without separator gel • Donor red blood cells
Quality Control	Daily Reagent Quality Control
Procedure: Rh Typing	Follow the steps below to perform Rh typing:

Step	**Action**
	Label one test tube for Anti-D with patient and reagent identifiers.
	Add one (1) drop of Anti-D in the appropriately labeled test tube.
	Prepare a 3-5% patient cell suspension.

	Add one (1) drop of the cell suspension to the tube containing the Anti-D and mix gently.
	Centrifuge.
	Gently resuspend the cell button and examine macroscopically for agglutination.
	Grade and immediately record the result.
	Save tube for use in Weak D (Du) testing, if indicated. (See policy)
	If ABO type is type AB, perform an Rh control. Repeat steps 3 and 4 above substituting Anti-D with Monoclonal Control.

Interpreting Results	Follow the steps in the table to interpret the Rh test.

If	**Then**
Cells agglutinate and/or are hemolyzed	Positive reaction
Cells do not agglutinate/and or no hemolysis is present	Negative reaction

If:		**Then**
Anti D	**D Control**	
> 2+	0 or ND	Report
1-2+	0 or ND	Check microscopically for mixed field agglutination *If present, result as "mf" and free text a BBCNC comment with grade of reactivity*
If original testing in tube <2+	0 or ND	Result as Rh weak D
If original testing by ECHO <2+		Proceed to *Resulting Tests Using the ECHO Interface*
+ or 0	+	Invalid test

Procedure: Current results vs. historical or confirmation	Follow the steps below to compare current Rh type to historical/ confirmation results:

Step	**Action**	
1.	Compare current Rh type result to previous/confirmation.	
2.	**If:**	**Then:**
	Current Rh result **does** match previous/confirmation Rh type	Report results
	Current Rh result **does not** match previous/ confirmation Rh type	Refer to *Resolving Patient History Discrepancies*

Reporting Results	Enter results and Interpretation directly in LIS testing grid. mf=Mixed Field NA= Not applicable ND= Not done NR= Not required INCL= Inconclusive

D	**DC**	**Report Interp**
2-4+	0 or ND	P
<2+	0 or ND	

mf	0 or ND	See table below for Interpretation
0	ND	N
1-4+	1-4+	INVAL

If:	**Then:**
Rh resulted as INVAL	Transfuse Rh negative
Mixed field agglutination is present	• Consideration should be given to discrepancies resulting from circulating mixed cell types • If no history of Rh Type prior to non-identical Rh type RBC transfusion, Rh Type cannot be reported. • Transfuse Rh Negative units until Rh type can be determined • If previous history of Rh type prior to transfusion of non-identical Rh type RBC, result Rh same as previously resulted

Related Procedures	• Performing ABO Blood Group • Performing Weak D Rh Type • Daily Reagent Quality Control Procedure • Resolving Patient History Discrepancies
Reference	Manufacturer's product insert Blood Grouping Reagent Anti-D and ABORh Control

All revision dates:

Attachments

No Attachments

Approval Signatures

Step Description	Approver	Date
Laboratory Director	Lindsey Westerbeck: Dir, Lab	pending