Sutter Health
Sutter Roseville Medical Center

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Owner:	*Nadera Dashty: Supervisor, Lab Analytic*
Policy Area:	*Lab - Transfusion Service*
References:	
Applicability:	*Sutter Roseville Medical Center*

Performing Manual (Tube) Reagent Quality Control (QC) for Transfusion Services

PURPOSE

To provide instructions on how to perform manual (tube) reagent quality control (QC) in Transfusion Services (TS).

POLICY

- Manual ABORh reagent QC is performed, documented, and must pass QC daily and with each new lot number/shipment prior to reporting patient or unit results.
  - Reagents that come as a set must be changed out simultaneously.
- Manual DAT, PeG, and LISS reagent QC is performed, documented, and must pass QC on each day of use and with each new lot number/shipment prior to reporting patient or unit results.
  - Use of PeG and/or LISS for antibody screens, antibody identifications, or crossmatches require QC to be performed.
- Following completion of reagent testing, a 2nd CLS must review the *Transfusion Services Daily Quality Control Log* and/or *Transfusion Services As-Needed Quality Control Log* for accuracy and completeness and document tech code on the log.

REAGENTS/SUPPLIES/EQUIPMENT

Reagents	Supplies	Equipment
• CorQC Reagents (corQC cell and corQC) • Panoscreen (PC) • Anti-A, Anti-B, Anti-AB, Anti-D • A1 Cell, A2 Cell, B Cell, O Cell • Monoclonal/Rh Control (Mono Cntl) • PeG • Antibody Enhancement Solution (LISS) • Polyspecific Antihuman Globulin (Anti-Poly) • IgG Antihuman Globulin (Anti-IgG) • Anti-C3b, C3d (Anti-C3) • Coombs Control • Complement Control (C3 Cntl)	• 12 x 75 Glass Test Tubes	• Centrifuge

PROCEDURE

ABORh Daily QC

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>1.</td><td>Obtain reagent racks and Transfusion Services Daily Quality Control Log (log).</td></tr>
<tr><td>2.</td><td>Document the date QC is performed along with the lot numbers and expiration dates for each reagent on the log.
Note: Lot numbers must be verified on every reagent rack prior to signing off on the day's QC.
• If lot number and expiration date has been documented on the current log on a previous day, a check mark may be placed in the designated space to indicate its verification.</td></tr>
<tr><td>3.</td><td>Verify and document on the log that the saline bottles on all of the benches contain the lot number, expiration date, and CLS tech code.</td></tr>
<tr><td>4.</td><td>Visually inspect all reagents to be QC'd in all racks.
<table>
<tr><th>If:</th><th>Then:</th></tr>
<tr><td>No hemolysis, cloudiness, or discoloration</td><td>Proceed with QC testing.</td></tr>
<tr><td>Hemolysis, cloudiness, or discoloration</td><td>Replace with new, visually acceptable vial of reagent and proceed with QC testing.
• If replacement vials are visually unacceptable, forward testing to alternate affiliate until appropriate replacement can be obtained.</td></tr>
</table>
</td></tr>
</table>

ABORh Daily QC cont.

Step	Action
5.	Perform reagent QC using the following guides. Mix, centrifuge for time posted on centrifuge, and read macroscopically. Note: Labeling convention is suggested below. Labeling may deviate from this convention so long as what is contained in each tube is readily identifiable. • **Rack A and B are to be QC'd on alternating days**

Label 9 tubes:	corA	corB	corAB	corD	corA1c	corA2c	corBc	corOc	corCntl
Add 1 drop of reagent	Anti-A	Anti-B	Anti-A,B	Anti-D	corQC	corQC	corQC	corQC	Mono Cntl
Add 1 drop of cells	corQC cell	corQC cell	corQC cell	corQC cell	A1 cell	A2 cell	B cell	O cell	corQC cell
Expected Results	**2-4+**	**2-4+**	**2-4+**	**2-4+**	**2-4+**	**1-3+**	**2-4+**	**0**	**0**

Label 7 tubes:	①A	①B	②AB	③D	Mono A1c	Mono A2c	Mono Bc
Add 1 drop of reagent	Anti-A	Anti -B	Anti -AB	Anti -D	Mono Cntl	Mono Cntl	Mono Cntl
Add 1 drop of cells	PC 1	PC 1	PC 2	PC 3	A1 cell	A2 cell	B cell
Expected Results	**0**	**0**	**0**	**0**	**0**	**0**	**0**

6.	Document results on log, verify reaction acceptability based on expected results, and indicate acceptability in appropriate column. Document performing CLS tech code in appropriate column. 2nd CLS must review the log for accuracy and completeness and document reviewing CLS tech code on the log.

ABORh Daily QC cont.

Step	Action
7.	If QC results are unacceptable, perform the following troubleshooting steps. If still unacceptable after performing all steps, forward testing to alternate affiliate, as needed, until appropriate reactions are obtained: • Repeat testing with same reagent. • Repeat testing with fresh bottle of same lot number. • If available, repeat testing using same lot number/different shipment date or different lot number.

PeG, LISS, and DAT As-Needed

Step	Action
1.	Obtain reagent racks and *Transfusion Services As-Needed Quality Control Log* (log).
2.	Document the date QC is performed along with the lot numbers and expiration dates for each reagent on the log. Note: Lot numbers must be verified on **every reagent rack** prior to signing off on the day's QC. • If lot number and expiration date has been documented on the current log on a previous day, a check mark may be placed in the designated space to indicate its verification.
3.	Visually inspect all reagents to be QC'd in all racks.

If:	Then:
No hemolysis, cloudiness, or discoloration	Proceed with QC testing.
Hemolysis, cloudiness, or discoloration	Replace with new, visually acceptable vial of reagent and proceed with QC testing. • If replacement vials are visually unacceptable, forward testing to alternate affiliate until appropriate replacement can be obtained.

4.	Perform reagent QC using the following guides. Note: Labeling convention is suggested below. Labeling may deviate from this convention so long as what is contained in each tube is readily identifiable.
5.	Document results on log, verify reaction acceptability based on expected results, and indicate acceptability in appropriate column. Document performing CLS tech code in appropriate column. 2nd CLS must review the log for accuracy and completeness and document reviewing CLS tech code on the log.

PeG, LISS, and DAT As-Needed cont.

Step	Action
6.	If QC results are unacceptable, perform the following troubleshooting steps. If still unacceptable after performing all steps, forward testing to alternate affiliate, as needed, until appropriate reactions are obtained: • Repeat testing with same reagent. • Repeat testing with fresh bottle of same lot number. • If available, repeat testing using same lot number/different shipment date or different lot number.

Peg/LISS

For PeG/LISS enhancement follow individual enhancement additive screen procedures to perform QC.

*Average expected positive QC results for PeG is 1-4+. Average expected positive QC results for LISS is 1-3+.

Label 6 tubes:	①corQC	②corQC	③corQC	①Mono	②Mono	③Mono
Add 2 drops of reagent	corQC	corQC	corQC	Mono Cntl	Mono Cntl	Mono Cntl
Add 1 drop of cells	PC 1	PC 2	PC 3	PC 1	PC 2	PC 3
Add 2 drops of enhancement	PeG/LISS	PeG/LISS	PeG/LISS	PeG/LISS	PeG/LISS	PeG/LISS
Expected Results	*	*	*	**0**	**0**	**0**

DAT

Mix, centrifuge for time posted on centrifuge, and read macroscopically.

Label 7 tubes:	PolyG	PolyC	Poly=	IgG+	IggG=	C3+	C3=
Add 2 drops of reagent	Anti-Poly 	Anti-Poly 	Anti-Poly 	Anti-IgG 	Anti-IgG 	Anti-C3 	Anti-C3 
Add 1 drop of cells	Checkcell 	C3 Cntl 	O cell 	Checkcell 	O cell 	C3 Cntl 	O cell 
Expected Results	**1-4+**	**1-4+**	**0**	**1-4+**	**0**	**1-4+**	**0**

RELATED DOCUMENTS

Performing a LISS Antibody Screen/Panel

Performing a Peg Screen or Additive Tube Method

All revision dates:

Attachments

Transfusion Services As Needed Quality Control Log.pdf
Transfusion Services Daily Quality Control Log.pdf