cap | **ETME-B**
2013
(ETME1)

KIT# 26340514 2 01 80

CAP# 2463716-15 SEQ# 01 CD 52 0009
CLIA# 50D0631627

Results must be received at the CAP no later than midnight, Central Time by the due date below:

October 15, 2013

Online: cap.org (preferred method)
Fax: 866-FAX-2CAP (866-329-2227)

PRODUCTS: 2013ETME1 (ETME1)

ERIN TUOTT MT(ASCP)
HARBORVIEW MED CTR
TEL#206-744-3088 FAX#206-744-6565

Expanded Transfusion Medicine Exercises Result Form

Reporting Code Selection

- If your method summary page states, "Please Provide a Valid Code,"
- If your code is listed incorrectly, or
- If you have changed your methodology,

Review the master list for an appropriate code and enter it on the result form. If there is no master list, select the code directly on the result form.

If you cannot find an appropriate code:

Select **Other** from the kit instructions or result form and describe your method in the **Use of Other** section of the result form.

If you need assistance, please call the Customer Contact Center at 800-323-4040 option 1 (domestic), or 847-832-7000 option 1 (international).

View the e-*LAB* Solutions™ user guide via cap.org

Wet Challenge - ETM1-05R/ETM1-05S (Post transfusion specimens)

Case History

A 70-year-old African American female was admitted in the early morning for 4 vessel coronary bypass graft surgery that day. Review of systems revealed that she had moderate to severe coronary artery disease with 4 drug eluting stents placed over the past 3 years at another hospital. She recently developed angina on mild exertion. An angiogram showed worsening severe coronary atherosclerosis. She discontinued her clopidigrel about 4 months ago. Additionally, she has moderate chronic obstructive pulmonary disease from smoking 1 to 2 packs of cigarettes a day most of her adult life, and hypertension for 15 years treated with a beta blocker. Her hematocrit on this admission was 32%, WBC 9.5 k/μL, platelet count 291 k/μL. A type and crossmatch for two units was ordered. The blood bank found the patient to be B+ with a negative antibody screen. Two units were crossmatched by the immediate spin (IS) technique and the units were issued to the OR and placed in the OR refrigerator. The patient has not had a previous specimen for ABO/Rh at this hospital. Surgery began at 9:30 AM. Estimated blood loss was about 1200 mL and the patient began receiving two units of IS crossmatched red cells at 10:30 AM.

At noon the patient arrived in the recovery room where she had a blood pressure (BP) of 100/80 with a pulse of 102 per minute and a temperature of 100.4°F as compared to a BP of 140/70 with a pulse of 74 and a temperature of 98.5°F in the pre-op holding area prior to surgery. She was given 1500 mL of saline over the next 90 minutes to maintain her systolic BP over 100. At 2:30 PM the BP was 80/60 with a pulse of 110. Considerable increase in oozing of blood from the surgical site was noted as well as an increase in chest tube drainage of blood (220 mL/hr). She rapidly received two more units of B+ immediate spin crossmatched blood (using the original patient specimen in the blood bank) over the next hour. At 3:30 PM her BP was 84/60 with a pulse of 110 and her urine was darker than normal. A transfusion reaction investigation was initiated and a newly obtained patient blood specimen was sent to the blood bank for a transfusion reaction work up.

Repeat pretransfusion testing and new posttransfusion testing on the patient's specimens showed:

Test	Pretransfusion	Posttransfusion
Forward ABO grouping		
Patient cells with anti-A	0	0
Patient cells with anti-B	4+	1+ mixed field
Patient plasma with A1 cells	4+	4+

Test	Pretransfusion	Posttransfusion
Reverse ABO grouping		
Patient plasma with B cells	0	1+
Patient cells for Rh testing	4+	4+
Antibody screen	negative	negative
Hemolysis	negative	positive
DAT	negative	to be performed

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Wet Challenge - ETM1-05R/ETM1-05S (Post transfusion specimens), cont'd

The clerical check showed that the patient's name and medical record number matched on all paperwork including the crossmatch tag and the patient's arm band on both the pre- and posttransfusion specimen. The blood segments retained in the blood bank from the 4 transfused units all confirmed as B positive on retyping them.

The transfusion medicine physician went to see the patient and found her to be somewhat agitated. Besides dark urine, he saw that she had petechiae and ecchymosis over her arms and torso and that the surgical dressings were soaked with fresh blood. There was bleeding from venipuncture sites.

Tests to be performed by participants

1. Perform a direct antiglobulin test (DAT) on the post transfusion red cell specimen (ETM1-05R). If you find the DAT to be positive, please perform an elution and further serologic studies to determine if a specific antibody can be detected.
2. The surgeon wants at least 2 more units of red cells and 1 unit of apheresed platelets stat because the hematocrit is now 19% and the platelet count is 25 k/μL. Perform compatibility testing using specimen ETM1-05S and 2 red cell units from your own inventory.
3. Answer wet challenge questions.

Direct Antiglobulin Testing - ETM1-05R

Polyspecific Antiglobulin Reagent

Manufacturer of Reagents	Method	Exception Code
010 ● 183 Bio-Rad/DiaMed	020 ● 26 Tube testing	030 ○ 11
○ 119 ImmucorGamma	○ 27 Solid phase red cell adherence	○ 33
○ 118 Medion Diagnostics	○ 29 Column agglutination (gel testing)	
○ 121 Ortho-Clinical Diagnostics	○ 23 Buffered gel card	
○ 109 Other, specify in final section	○ 17 Other, specify in final section	
	○ 30 Polyspecific reagent not used	

Serologic Results

A response is required for serologic results. **Do not leave blank.**	**If a positive result, indicate the strength of reaction.**	**If a positive result, was a mixed field reaction observed?**
040 ● 30 Positive	050 ○ 24 Microscopic reaction	060 ○ 35 Yes
○ 29 Negative	● 25 1+ reaction	○ 36 No
○ 70 Not tested	○ 26 2+ reaction	● 71 Did not examine for a mixed field reaction
	○ 27 3+ reaction	
	○ 28 4+ reaction	

Direct Antiglobulin Testing - ETM1-05R, cont'd

Anti-IgG Reagent

Manufacturer of Reagents	Method	Exception Code
010 ● 183 Bio-Rad/DiaMed	020 ● 26 Tube testing	030 ○ 11
○ 119 ImmucorGamma	○ 27 Solid phase red cell adherence	○ 33
○ 118 Medion Diagnostics	○ 29 Column agglutination (gel testing)	
○ 121 Ortho-Clinical Diagnostics	○ 23 Buffered gel card	
○ 125 Laboratory developed	○ 17 Other, specify in final section	
○ 109 Other, specify in final section	○ 30 Anti-IgG reagent not used	

Serologic Results

A response is required for serologic results. **Do not leave blank.**	**If a positive result, indicate the strength of reaction.**	**If a positive result, was a mixed field reaction observed?**
040 ● 30 Positive	050 ○ 24 Microscopic reaction	060 ○ 35 Yes
○ 29 Negative	● 25 1+ reaction	○ 36 No
○ 70 Not tested	○ 26 2+ reaction	● 71 Did not examine for a mixed field reaction
	○ 27 3+ reaction	
	○ 28 4+ reaction	

Anti-C3b/C3d Reagent

Manufacturer of Reagents	Method	Exception Code
070 ○ 183 Bio-Rad/DiaMed	080 ● 26 Tube testing	090 ○ 11
○ 119 ImmucorGamma	○ 29 Column agglutination (gel testing)	○ 33
○ 118 Medion Diagnostics	○ 23 Buffered gel card	
● 121 Ortho-Clinical Diagnostics	○ 17 Other, specify in final section	
○ 109 Other, specify in final section	○ 30 Anti-C3b/C3d reagent not used	

Serologic Results

A response is required for serologic results. **Do not leave blank.**	**If a positive result, indicate the strength of reaction.**	**If a positive result, was a mixed field reaction observed?**
100 ○ 30 Positive	110 ○ 24 Microscopic reaction	120 ○ 35 Yes
● 29 Negative	○ 25 1+ reaction	○ 36 No
○ 70 Not tested	○ 26 2+ reaction	○ 71 Did not examine for a mixed field reaction
	○ 27 3+ reaction	
	○ 28 4+ reaction	

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Page: 5

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Eluate Testing - ETM1-05R

Antibody Screen and Identification

Method for Eluate Preparation	Manufacturer of Antibody Identification Panel	Method for Antibody Identification
010 ○ 18 Cold acid ○ 19 Digitonin acid ○ 20 Dichloromethane (DCM) Glycine acid: ● 47 Gamma ELU-Kit II ○ 94 Hemo bioscience ELUclear ○ 95 Other glycine acid method, specify in final section ○ 21 Glycine-HCl/EDTA ○ 01 Other, specify in final section	020 ○ 125 Laboratory developed ● 113 Alba Bioscience (Quotient Biodiagnostics) ○ 120 American Red Cross ○ 183 Bio-Rad/DiaMed ○ 119 ImmucorGamma ○ 118 Medion Diagnostics ○ 121 Ortho-Clinical Diagnostics ○ 111 Selected cells from any of the above ○ 010 Other manufacturer, specify in final section	030 Tube Testing: ○ 11 Albumin - AHG ○ 12 LISS - AHG ● 13 PEG - AHG ○ 22 AHG without enhancement ○ 27 Solid Phase Red Cell Adherence ○ 29 Column Agglutination (Gel Testing) ○ 01 Other, specify in final section

Exception Code 040 ○ 11 ○ 33	050 ○ 110 Unexpected antibody not detected ○ 111 Unexpected antibody detected
Exception Code 060 ○ 11 ○ 33	➲ If an exception code is reported, you **must** leave the corresponding result area blank. 070 [ ][ ][ ] 080 [ ][ ][ ] 090 [ ][ ][ ]

University of Washington
Harborview Medical Center.
325 Ninth Ave. Seattle, WA. 98104

Department of LABORATORY MEDICINE

Eluate Testing Form

Name: Capsurv, ETM1-05 **Accession #:** _____

Hospital ID: _____ **Date:** 11/26/13

Birth Date: _____ **Tech ID:** 3853

ABO/Rh: B POS			Antibody Screen (circle one) POS (NEG)	
DAT	Poly: 1+	IgG: 1+	C3: 0	CT: 0

Eluate Kit Lot Number: **All reagents in date?** (circle one) (YES) NO

Working Wash Solution _349019__ **Buffering Solution** _347017__

Eluting Solution _348014_____

LAST WASH

Lot #	PEG AHG	CC	INTER
S1	0	3+	Negative
S2	0	3+	
S3	0	3+	

Comments:

ELUATE

Cell Lot number/ Donor #	ABO	PEG AHG	CC	INTER
	A			
	A			
	A			

Cell Lot Number/ Donor #	ABO	PEG AHG	CC	INTER
	B			
	B			
	B			

See attached worksheet(s) for eluate results: (circle one) (YES) NO

Reviewed by: _____ Date: _____

KEY: INTER = Interpretation; POLY = Polyspecific AHG; CT = Control; POS = Positive; NEG = Negative;

ALBAcyte® REAGENT RED BLOOD CELLS FOR IDENTIFICATION OF UNEXPECTED ANTIBODIES - REF Z471U & Z472U

QUOTIENT BIODIAGNOSTICS

Patient/Sample Details				
Name: Capsurv, ETM1-05	D.O.B:	Sample Identification:	ABO Rh: B POS	
Diagnosis/History:	Hospital:	DAT: 1+	Anti-IgG: 1+	Anti-C3: 0

Lot No: V137845 & V137846
Expiry Date: 2013.10.07 **U.S. License 1807**

			Rh-hr								Kell						Duffy		Kidd		Lewis		MNS				P	Lutheran		Additional Antigens			TEST RESULTS				
Cell #	Rh-hr	Donor	D	C	E	c	e	f	V*	C^w	K	k	Kp^a	Kp^b	Js^a	Js^b	Fy^a	Fy^b	Jk^a	Jk^b	Le^a	Le^b	M	N	S	s	P_1	Lu^a	Lu^b	Xg^a	Wr^a	Special Types	IS	PEG AHG	CC		Cell #
1	$R_1^wR_1$	2768020134541	+	+	0	0	+	0	0	+	0	+	0	+	0	+	+	0	+	+	+	0	+	0	+	+	+	0	+	+	0		0	0	3		1
2	R_1R_1	3253465	+	+	0	0	+	0	0	0	+	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	+	0	+	+	0		0	0	3		2
3	R_2R_2	4244481	+	0	+	+	0	0	0	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	0	+	0	0	+	0	0		0	0	3		3
4	r'r	6042256	0	+	0	+	+	+	0	0	0	+	0	+	0	+	0	+	+	+	0	0	+	+	+	+	+	0	+	0	0		0	0	3		4
5	r''r	5024734	0	0	+	+	+	+	0	0	0	+	+	+	0	+	+	+	+	+	+	0	0	+	+	0	+	0	+	+	0		0	0	3		5
6	R_or	116414	+	0	0	+	+	+	0	0	0	+	0	+	0	+	0	0	+	0	+	0	0	+	0	+	+	0	+	+	0		0	0	3		6
7	rr	3306410	0	0	0	+	+	+	0	0	0	+	0	+	0	+	+	+	0	+	0	+	+	0	+	+	0	+	+	0	0		0	0	3		7
8	rr	4253633	0	0	0	+	+	+	0	0	0	+	0	+	0	+	0	+	+	0	0	+	+	0	+	0	+	0	+	+	0		0	0	3		8
9	rr	4211534	0	0	0	+	+	+	0	0	+	+	0	+	0	+	+	0	+	0	0	+	+	0	+	0	+	+	+	+	0		0	0	3		9
10	rr	143266	0	0	0	+	+	+	0	0	0	+	0	+	0	+	0	+	0	+	+	0	+	+	0	+	0	0	+	0	0		0	0	3		10
Patients cells																																					

Notes:
1. All cells are DAT negative.
2. M, N, S, s, Fy^a and Fy^b antigens are destroyed or depressed following enzyme treatment.
3. 's' = strong reactor, 'w' = weak reactor, NT = Not tested.
4. The f antigen status may have been determined presumptively based on Rh-hr phenotype.

*Indicates those antigens whose presence or absence may have been determined using only a single example of a specific antibody.

Conclusions/Further Testing Required:

Signature/Initials: Date:

Quotient Biodiagnostics Inc., 41 University Drive, Suite 400, Newtown, PA 18940
Product Technical Support Tel: 1-888-228-1990 Web: www.quotientbd.com

Z471U/Z472UPI/03

No hemolysis @ 37°C

IN RCAID - 9.1.13 3853

Eluate