Methodist Health Services Corporation & UnityPoint Health Methodist	Page 1 of 3	Section: UPM BB POL	Policy #: 01.042
Laboratory	Approved by: see signature block at end of document		Date: 7/11/17
	Date Revised:		
	Date /Reviewed: 7/11/17		
	Policy/Revision Submitted by: Vincent Strow		
	CAP Standard: TRM.40670, TRM.40680, TRM.40690		

POLICY GUIDELINE ON: Electronic Crossmatch

I. POLICY STATEMENT:

Electronic crossmatch (EXM) is a process for evaluation of the compatibility of blood intended for a patient. EXM may be performed in place of an Immediate Spin crossmatch (XMIS) to screen for ABO incompatibility, as long as specific criteria are met.

II. PURPOSE:

The purpose of EXM is to provide an effective, efficient, and accurate way of determining donor/patient compatibility through use of validated software logic in the Laboratory Information System (LIS). The EXM process is contingent upon proper entry of the donor units into the LIS, as well as all necessary Donor Unit Retyping being performed prior to allocation.

EXM is not intended to determine compatibility on patients with significant antibodies on file, positive current antibody screens, ABO discrepancies, or any patient lacking at least two separate instances of an ABORh being performed, and the LIS shall not allow EXM to be utilized.

Serological compatibility testing is required for any patients ineligible for EXM. See
-UPM BBPRO 02.014: Compatibility Testing, Immediate Spin
-UPM BBPRO 02.012: Compatibility Testing, AHG - Gel Card

III. GENERAL INFORMATION:

The LIS is validated to perform analysis of the compatibility between the donor's cell type and the recipient's plasma type, known as an electronic crossmatch. There are three main criteria that must be met in order for an EXM to take place:

1. **The LIS must have two separate instances of the ABORh being determined**,
    a. Both instances of ABORh must match.
    b. New patients require a confirmation ABORh be performed, on a second specimen, drawn at a separate time or by a second phlebotomist, if they are to qualify for EXM.
2. **The current antibody screen must be negative.**
3. **There must be no antibodies on file.**
    a. Passively-acquired anti-D (Rhogam, RhIG, Rhophylac) shall not exempt a patient from EXM if the current antibody screen is negative and all other criteria are met.
    b. DARA (ACD38) or preservative antibody (APRS) shall not exempt a patient from EXM if the current antibody screen is negative and all other criteria are met.

IV. PROCEDURE

A. The Type and Screen must be completed; EXM **only** replaces the XMIS compatibility testing.

B. Ensure all three criteria are met prior to performing an EXM.

1. The LIS must have two separate instances of the ABORh being determined
   a. Converted historical records will not qualify, due to the nature of Sunquest.
   b. If a retype is required, order a confirmatory ABORh test (ABRCNF) in Order Entry
2. The current antibody screen must be negative
3. There must be no antibodies on file

C. Patient retypes must be resulted in the LIS prior to selecting blood for EXM.

D. If a patient retype is unable to be obtained, **perform a serological crossmatch** (XMIS).

1. Emergent circumstances should require serological testing until such confirmation may take place; if 12 units have been transfused emergently, the crossmatch may be omitted.
2. EXM is an option; the technologist may elect to perform serological crossmatches if needed or desired.

E. Once the EXM has taken place in the LIS, the transfusion tag will be resulted with "ECMP" for electronically compatible, and shall be attached to the corresponding unit of blood.

V. NOTES

A. All policies and procedures on selection of blood for transfusion are still applicable, regardless of EXM or XMIS being used to determine compatibility.

B. If any error is suspected in the blood product entry or donor unit retyping of available units of blood, quarantine the unit and notify the lead.

C. Manual entry of EXM results is not possible.

D. Quality Assurance failures generated by the LIS will disqualify attempts to utilize EXM

VI. MAINTENANCE AND STORAGE:

A. All policies and procedures are reviewed every two years by Laboratory Administration and or the Medical Director of the Laboratory or designee.

B. The Laboratory Administration and Medical Director review policies and procedures when there are changes in practice standards, or requirements.

C. All policies and procedures are reviewed every two years by staff or at the time new or revised ones are put in effect.

D. All policies are retained 8 years after being discontinued or revised.

E. All procedures are retained 2 years after being discontinued or revised.

UnityPoint Health Methodist Laboratory is a CAP accredited facility, as of 7/1/11 the responsibility of new and/or substantially revised policies and procedures will be restricted the Laboratory Director whose name appears on the CLIA certificate, whose signature appears below. The biennial review will be completed by the Administrative Director.

POLICY CREATION :			
Author:	***Vincent Strow, MA, MLS (ASCP)CM***		***June 22, 2017***
Medical Director:	***Elizabeth A. Bauer-Marsh, MD***	Elizabeth A. Bauer-Marsh MD	***July 11, 2017***

MEDICAL DIRECTOR		
DATE	NAME	SIGNATURE
July 11, 2017	Elizabeth A. Bauer -Marsh	Elizabeth A. Bauer-Marsh MD
SECTION MEDICAL DIRECTOR		
	Elizabeth A. Bauer-Marsh	Elizabeth A. Bauer-Marsh MD

REVISION HISTORY			
Rev	**Description of Change**	**Author**	**Effective Date**
0	Initial Release	V. Strow	6/22/17

Reviewed by

Lead	**Date**	**Coordinator/Manager**	**Date**	**Medical Director**	**Date**
V. Strow	6/22/17	Jane Bambenek	7/10/17	Elizabeth A. Bauer-Marsh MD	7/11/17