**Purpose**

The Blood Order Processing (BOP) application is used to record patient specimen testing, allocate blood products and result compatibility testing one patient and one order at a time. BOP performs quality assurance checking with applicable problem alerts for the patient and/or the units selected. This procedure details routine blood order processing.

**Method**

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| **Step** | **Actions** | **Computer Processes** |
| 1 | Orders received and accessioned in TSL | * Open Blood Order Processing (BOP). The top left hand pull down selection allows access by patient HID, accession #, CID, or other assorted means.
 |
| 2 | Check Patient History and Demographics* **Review the BAD file**
* **Check for Yellow Sun indicators**
* **Special Patient requirements**
* **Problems**
* **Comments**
* **Review transfusion history**
* **Resolve any discrepancy and document on QIM**

**Before proceeding.** | ***Related Documents:*** * + Using Blood Bank Inquiry in Sunquest
	+ Laboratory Inquiry
	+ Historical Data Reconciliation
	+ Updating Patient Demographics in Sunquest to Match EPIC Registration Changes
	+ Linking Patient Records in Sunquest
	+ SQ Patient Name Display Formats
 |
| Information Tab provides access to:* Demographics- Patient location and Blood Bank Administrative Data (BAD file). Look for any Antigen/Antibodies, Problems, Comments and Transfusion attributes
* Linked/Archived-any linked patient records
* Order Data-tests and blood orders attached to the accession number/CID
* Designated –directed and autologous units for the patient
* History –transfusion history

The Patient Header will show the patient information such as Name, HID, Date of Birth, Age and Gender. In addition the BAD file data can be seen here such as the Type and Screen history, Antibodies, antigen and transfusion attributes. A blinking “yellow sun” indicates there is information to be seen in the BAD file. The “grey sun” indicates that no data exists.Patient has a history check found if data exists in the BAD file and or patient has historical type and/or screen |
| **Step** | **Actions** | **Computer Processes** |
| 3 | Order Access | Access using Patient HID requires clicking on the Order tab.* A list of orders will display based on the number of display days in the box. 99 days is the default. Change to 4 days if the number of patient orders is slowing access to BOP.
 |
| 4 | Test Battery  | Review and result appropriate testing for the battery ordered, patient history, comments, and appropriate reflex testing* Click on Patient Specimen Tab (5), and the following information can be seen:
	+ Order battery shows up in blue on the screen
	+ Blood component type that can be linked to the order
	+ Specimen testing has all tests attached to the test battery
	+ Compatibility testing will show the units allocated to the order

Follow the BOP test result guide to complete testing |
| 5 | Units Ordered (UO) | *Blood Component Orders Only** Review the number of units ordered.
	+ The number of units must be adjusted to keep up with the number of units requested at any point while the specimen is valid and in date.
	+ TSCR auto results to NONE
 |
| 6 | History Check – HXCK*All Orders*  | Using the specialized keyboard, enter:* + H - Previous history found
	+ Q - No history found.
 |
| 7 | Physician Instructions – PI | *Blood Component Orders Only** PI is physician instructions. The default is NONE and can only be changed in Order Entry.
 |
| 8 | Sample Use Expiration – EXX  | *Blood Component Orders Only** The EXX test shows expiration date for crossmatch capability and further testing. This can be modified for special protocols and/or with a deviation.
 |
| 9 | General Specimen Testing | To move the cursor to the results test grid use the Home Key.* Follow the BOP test result guide to complete testing
* The test field on left side of screen under specimen testing should populate with these entered results.
 |
| 10 | ABO/D test – ABR  | ABR is the primary ABO/D test.  |
| 11 | Antibody Screen – AS | Antibody Screen result entry |
| 12 | Battery ABRH2 | Prior to allocating and issuing blood components, HMC Policy requires 2 separate collections for ABO/D testing when the patient ABO/D has not been determined by TSL. |

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| **Step** | **Actions** | **Computer Processes** |
| 13 | ABO/D Recheck- ARC | ARC Testing:* Order test ARC (second blood typing)
* Second technologist performs ARC
* If a second technologist is not available, testing can be performed on a new cell suspension.

**Two applications of ARC in TSL for Patient Testing****ARC performed as described below:****Neonates:** perform ARC. ABRH2 does not apply to neonates.**SQ Disallows Electronic Crossmatch*** Sunquest may disallow Electronic Crossmatching if an ABR test is resulted as ND (BBCAN).
* Perform ARC on the same sample/current testing battery (TSCR, TXM, ABRH2) if **ALL** of the following are met:
* Previous ABO/D history is available and/or ABRH2 has been completed,
* Previous sample was rejected or cancelled, **AND**
* Patient qualifies for electronic crossmatching

***Note:*** *ARC does NOT replace requirement for 2 separate collections (ABRH2) prior to issuing type specific blood components for patients >4 months of age.*  |
| 14 | General Allocation | * Click on Allocation tab (6)
* Scan in the unit in the Unit# field
* Scan component type
* SELECT
* Unit appears on screen as allocated.
* Required testing is completed as described in component specific sections below.
* Transfusion tags will print
* Issue, Emergency Issue, or select No to store units until ready to issue.

***Note:*** *Each accession only allows allocation of 100 blood components. Create new accession for additional products with Order Comment containing original accession number. Transfer test results from original Accession, credit 2nd TXM, and add BBCS comment explaining 2nd accession creation.* |
| 15 | Allocation of Plasma components: * Thawed Plasma
* Cryoprecipitate
* Platelets
 | Follow BOP test result guide to complete TS test.***Related Documents:**** *Thawing Products Using the Helmer QUickthaw*
* *Preparation of Cryo in Sunquest*
* *Preparation of Thawed Plasma in Sunquest*
* *Preparation of Combined Platelets in Sunquest*
 |
| **Step** | **Actions** | **Computer Processes** |
| 16 | Allocation of Red Blood Cells or Granulocytes | Each unit allocated to the patient has a “XM” Crossmatch result and “TS” Transfusion Status* Follow BOP test result guide to complete appropriate compatibility testing and TS test.

***Related Document:**** *Policy for Provision of Crossmatch Compatible Blood*
 |
| 17 | Additional Unit Tests | Common uses:* + Antigen typing (AO)
	+ Unit comments to print transfusion tag (CM)
	+ Reprint of transfusion tag (UR)
 |
| 18 | To complete testing and print transfusion tags | If no products needed, click on Save to exit BOP* If blood products allocated, click on Save, the transfusion tag will print
* Verify transfusion tag is acceptable.
 |
| 19 | Blood Product Issue  | Once the transfusion tag is prints, the “Call BPI Continue to Blood Product Issue?” box pops upIf blood is * Not to be issued, click on “No”
* Emergency release select “Emergency”- branch to BPI
* To be Issued, click on “Issue” – branch to BPI
 |
| 20 | Remove Unit from allocation | Click on the Units Tab* Highlight unit not wanted then select Remove Unit.
* Select OK for confirmatory box.
 |
| 21 | Cancellation of test | To delete a test that has been added but not yet saved, select the result entry cell of the test, and press Shift +Delete.* If a test has been added and saved, it must be resulted with something or will be left as pending.

***Related Document:**** *Canceling Orders and Correcting Results in Sunquest*
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| 22 | General information | Any blue highlighted test field can be changed to type in the text code by using one semi colon. This changes the box from blue to grey fuzzy outline. To free text use two semi colons then type in field. |

**Related Documents:**

* SQ Order Entry
* ABO/D Testing by Tube Method
* Antibody Screen by LISS Tube IAT Method

**References**

Blood Bank User Guide, Misys Laboratory, Version 6.2