**Purpose**

To describe the process for addressing Quality Assurance (QA) failures in Sunquest.

**Policy**

HMC TSL will follow the process outlined below when performing QA overrides. All staff at HMC TSL have been assigned Sunquest (SQ) security levels based on their job description and classification. Appropriate security levels and QA override capabilities have been assigned to staff. It is the responsibility of the TSL staff to perform appropriate review prior to performing any QA failure overrides.

**Procedure**

|  |  |  |
| --- | --- | --- |
| **Step** | **Action** | **Related Documents** |
| 1 | General Statements* SQ has quality assurance failure messages related to products and testing
* QA failures have been assigned to different security levels upon review by the TSL Manager and TSL Medical Director(s)
* QA failures can be overridden if policy is in place or approved by TSL Medical Director or Manager
* Multiple QA failures may be generated if more than one error or discrepancies exist. Staff must review all discrepancies prior to completion of override
* The following sections address some of the most common QA failures seen in SQ. Appendix B includes all of the QA failures built in SQ.
 | Appendix A-Override Reason CodesAppendix B -Blood Bank Quality Assurance Table |
| 2 | Blood Products* All testing for blood products such as visual inspection and unit type confirmation must be performed prior to release of product to inventory and issuing on a patient
* Any QA failures associated with unit/product/donor testing require a MLS Lead or Manager review approval prior to override
 |  |
| 3 | Patient/Specimen Testing* Specimen testing must be complete and accurate. Changes to patient test results or incomplete patient testing can generate QA failures
* Examples of QA failures:

*“Specimen test result modification”* –Any time test result is modified with a different interpretation. Positive antibody screen has been changed to negative or vice versa. *“Specimen reaction entry does not match system interpretation”* -results in test grid do not match the interpretation entered. Mixed field reactions or different result than the expected was entered. | SQ Blood Order Processing Test Result Guide  |
| **Step**  | **Action**  | **Related Documents**  |
| 3cont | *“Specimen testing ABO does not match patient’s permanent ABO” –* Patient historical or previous blood type is different than specimen due to transfusion history, transplant, diagnosis. Can also be seen with cancellation of tests.*“Specimen testing Rh does not match patient’s permanent Rh”* -Patient historical or previous blood type is different than specimen due to transfusion history, transplant, diagnosis. Can also be seen with cancellation of tests. Usually ABO/Rh failures occur together with type and screens.*“Patient specimen testing incomplete”* -verify that all applicable testing has been completed. Okay to override if Medical Director consult is pending. |  |
| 4 | Unit Allocation* Applies to %TS and %XM. Must be completed prior to issue. Added on CM and AO must also be resulted
* Examples of QA Failures

*“Unit allocation testing incomplete”* -unit crossmatch is incomplete or transfusion status has not been resulted. May need to override if emergency release is necessary.*“Unit compatibility test result modification” -*if reactions have been changed and unit changed from compatible to incompatible. *“Unit compatibility reaction entry does not match system interpretation” -*wrong reaction grid entered which does not match the interpretation entered. Example a positive check cell with a positive AHG is not considered valid. Do not override without MLS Lead or Manager approval. *“Selected unit’s ABO does not match patient’s permanent ABO”* –compatibility table for the product does not match. Only approved to override with low titer group A plasma given to unknown, AB or B blood type. *“Selected unit’s Rh does not match patient’s permanent Rh”* –when Rh pos is given to Rh neg for red blood cells. Acceptable to override if matches policy. *“Selected unit’s ABO does not match specimen’s ABO”-* unit is O pos and patient is A neg. Okay to override if Rh type matches policy*“Selected unit’s Rh does not match specimen’s Rh”*- unit Rh is positive and specimen Rh is negative. Acceptable to override if matches policy  | SQ Blood Order Processing Test Result Guide  |
| 5 | Patient Attributes* Provide attribute(s) requirement unless approved by Medical Director
* Examples of QA Failures
 | Selection of Red Blood Cells |
| **Step**  | **Action**  | **Related Documents**  |
| 5cont | *“Patient/unit attribute incompatibility”* -unit does not match the patient attribute requirement. Do not override without investigation. *“Linked patient/unit attribute incompatibility”*-linked information has attribute requirement which is not indicated on the product and on the HMC mrn. Do not override without investigation. | Selection of Platelets, Plasma and Cryoprecipitate |
| 6 | Patient Ag/Aby requirements* Provide antigen negative products for red cell products based on policy
* Examples of QA Failures

*“Patient/unit Ag/Ab incompatibility” -*unit has antigen negative requirements missing. Investigate if clinically significant prior to override. Multiple antibodies must be closely reviewed if one of the antigen testing is missing.  | Policy for Provision of Crossmatch Compatible Blood |
| 7 | Other* QA failures can be generated when specimen or unit is expired. This should only be used for billing investigation
* Examples of QA Failures

*“Unit is expired” –* billing investigation*“Specimen expired”* – resulting consult or billing investigation.  |  |
| 8 | Override Reasons* Select appropriate reason code for override
* Free text any additional information as needed
 | Appendix A |
| 9 | File a QIM on QA failures that were overridden inappropriately  | Quality Improvement Monitoring Form |

**References**

Blood Bank Users Guide, Mysis Laboratory, Version 7.2

**Appendix A: Override Reason Codes**

|  |
| --- |
| **Reason Codes** |
| **Code** | **Mnemonic Defined** |
| **AAGT** | Additional antigen testing required  |
| **ABCIS** | Clinically insignificant antibody, antigen typing not required |
| **ABOCP** | ABO compatible  |
| **ABODIS** | Blood type discrepancy |
| **AMEN** | Results amended |
| **ARTR** | Adequate Return Time to Reissue  |
| **BBR** | Blood Bank Reason  |
| **BINV** | Billing investigation |
| **BROKEN** | Broke in waterbathREASON Codes are used in overrides but they are also used in other functions:Blood Product Entry: OTHR requires name of collection facility; enter Autologous or Directed informationBlood Status Update: Reason for FailureBlood Status Correction: Reason Code required but Search leads you to a LONG list for all of Lab Med |
| **CWG** | Interpretation consistent with grid results |
| **DUA** | Directed Units Available |
| **EE** | Entry Error  |
| **EMR** | Emergency release, uncrossmatched |
| **EXPMOD** | Expiration modified |
| **ICP** | Inventory control purposes  |
| **LOWTP** | Low Titer Product |
| **OD** | Outdated |
| **OKDOC** | Physician accepts |
| **OMS30** | Out of monitored storage >30 minutes |
| **PAO** | Pathologist approval obtained |
| **PIIP** | Problem Investigation in Progress |
| **PTSNA** | Patient specimen not available for testing |
| **QACOOL** | Unit returned from cooler |
| **QAFRIG** | Unit returned from refrigerator |
| **QAPBOX** | Unit returned from platelet box |
| **QAPTXM** | Post Transfusion Crossmatch |
| **REL** | Released  |
| **RHND** | Rh recheck not yet performed  |
| **RUNIT** | Remainder of unit discarded  |
| **SPEX** | Specimen expired |
| **SPROB** | See Problem Resolution  |
| **SUPR** | Supplier Recall |
| **TDONE** | Testing performed but not yet entered in computer |
| **UPDATE** | Order Update Required |
| **URGENT** | Urgent Release |
| **WPROD** | Wasted Product |
| **LEAS**  | Neutralization with Lewis substance |
| **RHIG** | Patient received Rh Immune globulin  |

**Appendix B: Blood Bank Quality Assurance Table**

UNIVERSITY OF WASHINGTON MEDICAL CENTER

INCLUDING LABORATORIES AT UWMC, HMC AND SCCA

CAP 24637-01, 24637-16, 24637-30, 24637-35, 24633-01

BLOOD BANK QUALITY ASSURANCE TABLE DEFINITIONS

BLOOD BANK QUALITY ASSURANCE FAILURE MESSAGE DEFINITION

FOR ALL HOSPITALS

 QA failure : 1 - "Product testing ABO/Rh does not match unit's permanent ABO/Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 2 - "Unit's ABO/Rh does not match product testing ABO/Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 3 - "Specimen testing ABO/Rh does not match patient's permanent ABO/Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 4 - "Unit testing ABO/Rh does not match patient's permanent ABO/Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 5 - "Unit testing ABO/Rh does not match specimen's ABO/Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 6 - "Unit testing ABO/Rh does not match unit's permanent ABO/Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 7 - "Selected unit's ABO/Rh does not match patient's permanent ABO/Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 8 - "Selected unit's ABO/Rh does not match specimen's ABO/Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 9 - "Unacceptable result on file"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 10 - "Rhogam not ordered"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 11 - "Product testing incomplete"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 12 - "Source unit's product testing incomplete"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 13 - "Patient specimen testing incomplete"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 14 - "Unit allocation testing incomplete"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : N

 QA failure : 15 - "Units issued versus Units ordered"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 16 - "Auto/directed unit assigned by name only, or patient not an assignee"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 17 - "More autologous/directed unit(s) available"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 18 - "Patient/unit Ag/Ab incompatibility"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 19 - "Linked patient/unit Ag/Ab incompatibility"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 20 - "Product reaction entry does not match system interpretation"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 21 - "Unit compatibility reaction entry does not match system interpretation"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 22 - "Specimen reaction entry does not match system interpretation"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 23 - "Product test result modification"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 24 - "Product test result modification"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 25 - "Unit compatibility test result modification"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 26 - "Specimen test result modification"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 27 - "O-NEG unit issued to a NON O-NEG patient"

 Security level : 23 Blood Bank - Technician level

 Requires reason : Y

 QA failure : 28 - "No blood type on file for patient and unit"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 29 - "Unit testing ABO/Rh does not match unit testing recheck"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 30 - "Input unit(s) expire before output unit: "\_QAV1\_" ("\_QAV2\_")"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 31 - "Input unit exp. date ("\_QAV1\_") prior to Output exp. date ("\_QAV2\_")"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 32 - "Product testing ABO does not match Unit's permanent ABO"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 33 - "Product testing Rh does not match Unit's permanent Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 34 - "Unit is expired"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 35 - "Unit status updated to inventory with unacceptable result(s) on file"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 36 - "ABO testing does not match ABO recheck testing"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 37 - "Rh testing does not match Rh recheck testing"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 38 - "Specimen testing ABO/Rh does not match specimen testing recheck"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 39 - "BAD file data changed while resulting"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 40 - "Specimen testing ABO/Rh does not match linked patient's permanent ABO/Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 41 - "Specimen testing ABO/Rh does not match allocated unit's ABO/Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 42 - "Unit allocated with no blood type on file"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 43 - "Unit's permanent ABO does not match product testing ABO"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 44 - "Unit's permanent Rh does not match product testing Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 45 - "Deletion of 'ABO' on previously filed unit"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 46 - "Deletion of 'Rh' on previously filed unit"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 47 - "Unit's ABO does not match Donor's ABO"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 48 - "Unit's Rh does not match Donor's Rh"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 49 - "Unit's ABO/Rh does not match Donor's ABO/Rh"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 50 - "Product testing ABO/Rh does not match Donor's ABO/Rh"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 51 - "Unit compatibility testing ABO/Rh does not match Donor's ABO/Rh"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 52 - "Donor unit ABO update. This modification will not update the donor record."

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 53 - "Donor unit Rh update. This modification will not update the donor record."

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 54 - "Medical Evaluation Modification"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 55 - "Eligibility Date Override"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 56 - "Deferral Override"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 57 - "Donor unit ABO/Rh update"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 58 - "Donor unit Ag/Ab update, this modification will not update the donor record."

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 59 - "Donor Age Override"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 61 - "Modification of donor evaluation data for unit in inventory"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 62 - "Passed donor prescreen while prescreen tests still pending"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 63 - "Product testing ABO does not match Donor's ABO"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 64 - "Product testing Rh does not match Donor's Rh"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 65 - "Active deferral(s) on file for donor of unit "\_QAV1

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 66 - "Specimen Expired"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 67 - "Patient/unit attribute incompatibility"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 68 - "Emergency use only"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 69 - "Conflicting Ag/Ab pair(s) on unit"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 70 - "Selected unit's ABO does not match patient's permanent ABO"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 71 - "Selected unit's Rh does not match patient's permanent Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 72 - "Selected unit's ABO does not match specimen's ABO"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 73 - "Selected unit's Rh does not match specimen's Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 74 - "Specimen testing ABO does not match patient's permanent ABO"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 75 - "Specimen testing Rh does not match patient's permanent Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 76 - "Specimen testing ABO does not match specimen testing ABO recheck"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 77 - "Specimen testing Rh does not match specimen testing Rh recheck"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 78 - "Specimen testing ABO does not match linked patient's permanent ABO"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 79 - "Specimen testing Rh does not match linked patient's permanent Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 80 - "Specimen testing ABO does not match allocated unit's ABO"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 81 - "Specimen testing Rh does not match allocated unit's Rh"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y

 QA failure : 82 - "Unit testing ABO does not match specimen's ABO"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 83 - "Unit testing Rh does not match specimen's Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 84 - "Unit testing ABO does not match patient's permanent ABO"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 85 - "Unit testing Rh does not match patient's permanent Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 86 - "Unit testing ABO does not match unit's permanent ABO"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 87 - "Unit testing Rh does not match unit's permanent Rh"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 88 - "Unit testing ABO does not match unit testing ABO recheck"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 89 - "Unit testing Rh does not match unit testing Rh recheck"

 Security level : 83 Blood Bank Lead Override

 Requires reason : Y

 QA failure : 90 - "Unit Compatibility testing ABO does not match Donor's ABO"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 91 - "Unit Compatibility testing Rh does not match Donor's Rh"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 92 - "Source unit's permanent ABO does not match the product testing ABO of derivative unit(s)"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 93 - "Source unit's permanent Rh does not match the product testing Rh of derivative unit(s)"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 94 - "ABO modified or deleted on unit. Review labeling of unit and any derivative unit(s)"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 95 - "Rh modified or deleted on unit. Review labeling of unit and any derivative unit(s)"

 Security level : 84 Blood Bank Supervisor Override

 Requires reason : Y

 QA failure : 96 - "Linked patient/unit attribute incompatibility"

 Security level : 81 Blood Bank - Technologist level

 Requires reason : Y