**Purpose:**

This document describes how to perform quality control for ABO/Rh and antibody screen testing to ensure it is performed in an appropriate manner.

**Procedure**

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| **Step** | **Action** | **Related Documents**  |
| **General Statements:** |
| **A.** | * Quality Control Shall be performed:
	+ On each day of analyzer use
	+ When a reagent or plate lot number changes
	+ When a new lot of red cells or new preparation of Bromelin is placed on the system
	+ After service and/or repair of the analyzer
 |  |
| **B.** | * + - Required Materials include:
* Sample Controls (EDTA Lavender or EDTA Pink Top)
* Control Barcode Labels
* Solidscreen II Control
* Solidscreen II Control B
* Solidscreen II Negative Control
* 12 x 75 mm Test Tubes
 |  |
| **C.** | * + - The following limitations and precautions apply:
* Samples and reagents derived from human or animal blood are potentially biohazardous and/or infectious. Use appropriate PPE when handling such materials.
* Control samples must be less than seven (7) days old.
* Control samples should not be clotted, hemolyzed, lipemic or icteric.
* Avoid samples with mixed field or questionable results.
* Patient samples used for QC must return to room temperature prior to analysis if previously refrigerated.
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| **Control Definition:** |
| **A.** | * + - Select the ‘Samples/Controls’ button
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| **B.** | * + - Select the ‘Control Management’ button
 |  |
| **Step** | **Action** | **Related Documents**  |
| **C.** | * + - To define a new control:
* Select the ‘New’ button
* Enter the name of the control and barcode the product code for that control.
* Any given product code can be assigned to only one control.
* The product code is the first three digits of the control
 |  |
|  barcode label for that control.* Enter the time interval for the run in hours, 24 hours.
* Define the expected values by selecting the Target Value buttons and highlighting the expected result with the arrow keys. Select the ‘Enter’ key to select the expected result.
* Select the appropriate button to select the assays required for attaining the target values.
	+ Touch the ‘OK’ button. The new control will be displayed in the ‘Control Management’ window
 |  |
| **ABO/Rh Controls** |
| **A.** | * Controls may be selected from previously tested samples.
* Examine samples for acceptability, refer to limitations.
* Samples selected as controls should give the appropriate reaction, positive or negative, with the target antisera/reagent. The reactivity should be clearly interpreted by the TANGO.
 | * Tango User Guide, Section 4.1
 |
| **B.** | * Control samples should be selected to verify both positive and negative reactions for every reagent.
* An example of appropriate samples for ABO/Rh controls would be as follows:
	+ O neg and AB pos or A neg, B neg and O pos
	+ Other configurations as long as there is a positive and negative for each reagent.
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| **C.** | * + - Place the appropriate barcode label on samples to be used as controls.
* Barcode labels are provided by Bio-Rad.
* Alternately, the control name (number) can be manually entered.
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| **D.** | * + Place controls in a Control Rack (C) in the same manner that samples are placed in a rack.
 |  |
| **E.** | * + - After insertion of the Control Rack, the ‘Sample Loading’ window is displayed and the Sample ID’s of the controls are displayed, if barcode labels were used.
* The Sample ID starts with a lower case c.
* If not using a barcode, input the sample ID manually
 |  |
| **F.** | Start testing following Starting a Test Run SOP | * Starting a Test Run
 |
| **Antibody Screen Controls** |
| **A.** | * Two positive controls, Solidscreen II Control and Control B, are available for testing on the TANGO.
* The Solidscreen II Controls are supplied as a ready to use reagent.
* Solidscreen II Control contains a dilute anti-D
* Solidscreen Control B contains a dilute anti-c and is used in conjunction with Solidscreen II Control to QC the 3 cell screening assay.
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| **B.** | Solidscreen II Negative Control is available for testing on the TANGO. Alternately, a negative control may be selected from previously tested samples.* Examine samples for acceptability, refer to limitations.
* The sample selected as the negative control for the Solidscreen II assay should have previously produced clearly negative results on the TANGO.
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| **C.** | Control samples should be selected to verify a minimum of one positive and one negative reaction with each screening cell of the antibody screen assay. | Tango UserGuide Section 4.2 |
| **D.** | Aliquot a portion of each Solidscreen II control into a clean, properly labeled test tube.* When the Solidscreen II control aliquots are not in use, seal the tube and store at 2-8°C.
* The aliquot can be used until exhausted or until the expiration date on the original vial, whichever comes first.
 |  |
| **E.** | Place the positive and negative controls in a Control Rack (C) in the same manner that samples are placed in the rack. |  |
| **F.** | After insertion of the Control Rack, the ‘Sample Loading’ window is displayed and the Sample ID’s of the controls are displayed, if barcode labels were used.* The Sample ID starts with a lower case c.
* If not using a barcode, input the sample ID manually.
 |  |
| **G.** | Start testing following Starting a Test Run SOP | Starting a Test Run SOP |

**Referenced Documents:**

TANGO User Guide, Version 3.0.2