**Purpose:**

To describe specimen requirements and preparation of samples for testing on the Tango.

**Limitations and Precautions:**

* Samples and reagents are derived from human or animal blood, potentially biohazardous and/or infectious. Use appropriate PPE when handling such materials.
* Specimens must be at room temperature prior to testing.
* Clotted, grossly hemolyzed, lipemic or icteric samples may result in inaccurate typing or increased “No Type Determined” results.
* Donor units with container designations Container #1 and/or Container #2 are run manually.

**Procedure:**

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| **Specimen Requirements** |
| **Step** | **Action** | **Related Documents** |
| 1. | Samples must be at room temperature prior to testing as cold samples may cause dispensing errors or non-specific reactions. |  |
| **ABO/Rh testing** |
| 2. | Patient samples* Minimum volume requirements- 1 mL red cells and 1 mL plasma, 1 or 2 donor segments.
* Anticoagulated samples are required for processing.
* EDTA is the acceptable anticoagulant.
* Anticoagulated samples can be tested for up to seven (7) days.
* The day of collection is considered day zero (0),
* If the samples are not tested within 24 hours of collection, store samples at 2-8°C.
 | Sample acceptance evaluation |
| 3. | Donor samples* Samples collected in FDA approved citrate based anticoagulant solutions are acceptable for confirmation of ABO blood group and/or Rh type of labeled donor units.
* Anticoagulated blood from segments that have been stored at 1-6°C can be used up until the expiration date of the unit.
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| **Antibody screening** |
| 4. | Patient and Donor samples* Plasma or serum can be used.
* Samples may be tested for up to seven (7) days following collection.
* The day of collection is considered day zero (0).
* If the samples are not tested within 24 hours of collection, they should be stored at 2-8°C.
 | Sample acceptance evaluation |
| **Step** | **Action** | **Related Documents** |
| **Preparing Donor Segments for Testing** |
| 1. | Obtain donor segment by pulling on the last segment attached to the unit until it snaps off or use a pair of scissors to cut off the sealed end. |  |
| 2. | Obtain a donor unit barcode provided on the back of the donor unit and apply it to the side of the test tube no lower than 17 mm from the bottom of the tube. The barcode should be placed on the tube so that the lines are horizontal. Overall there should be no more than 5o slant to the barcode label.* If the donor unit barcodes are not available, hand write the donor number on the test tube.
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| 3. | Utilize a donor segment piercing device by placing it on the open end of a test tube and placing the segment into the device until the needle inside pierces the segment. |  |
| 4. | Once the segment is pierced, apply pressure to the donor unit segment until contents are placed into the test tube. |  |
| 5. | Repeat above steps for remaining donor segments and place them into a ‘B rack’ that is designated for donor retype testing on the Tango.* Ensure that the test tubes are seated completely to the bottom of the ‘B rack’ to avoid a possible probe crash.
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| **Preparing Patient Samples for Testing** |
| 6. | Remove sample cap and check for clots using 2 wooden sticks. Recap specimen.* If no clots are found, proceed to centrifuge specimen.
* If clots are detected, test manually.
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| 7. | Centrifuge sample for 5 minutes at 800-1000 x g.* There must be a distinct separation between the cellular and plasma layers.
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| 8. | Remove sample cap. |  |
| 9. | Load into appropriate rack and onto the instrument. | TANGO Initializing Test runs |

**Referenced Documents:**

TANGO User Guide, Version 3.3