**Purpose:**

To describe the loading of test racks, manually ordering tests and starting a test run based on testing urgency.

**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.
* Do not load samples while loading reagents or plates as only one loading window can be displayed at the same time.
* If samples are already in progress for testing on the Tango, perform manual testing to expedite the turn-around time on Stat orders.

**Procedure:**

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| **Step** | **Action** |
| **Test Confirmation and Rack Selection** | |
| 1 | Select the appropriate rack based on testing to be performed:  **E**: Emergency orders: assigns Emergency Status automatically to the samples  **N**: Routine Patient Samples  **B**: Donor Type Confirmations  **C**: Controls |
| 2 | Place the samples in the rack so that the barcode is visible through the opening in the side of the rack.   * Samples should be firmly pressed down to prevent probe crashes |
| **Sample Loading** | |
| 1 | Open the door of the sample station. This opens the ‘Sample Loading’ window. |
| 2 | Hold the sample rack firmly by the handle.   * Do not cover the accession label on the sample rack while loading the rack. |
| 3 | Slide the sample rack onto the track.   * A flashing red LED indicates the expected track. * When the rack has been inserted completely, the red LED lights up permanently. * If the rack is not identified, remove the rack and reinsert, ensuring that the barcode is not obscured. * When loading donor segments that have the small barcode affixed to the test tube, load onto sample tracks 6-12 by placing empty sample racks in track positions 1-5. * If using barcoded samples, the sample ID and sample type are displayed automatically in the ‘Sample Loading’ window. |
| **Step** | **Actions** |
| **Sample Loading (continued)** | |
| 4 | If barcode cannot be read properly on the sample or if there is no barcode, touch the ‘Manual Input’ button.   * Unread barcode field changes in color from gray to white and can now be edited. |
| 5 | Remove the rack. |
| 6 | Touch the appropriate field and enter the sample information by either typing in manually or using a hand held scanner. |
| 7 | Repeat for all necessary samples. |
| 8 | Re-insert the sample rack in the indicated track.  NOTE: If the rack is not removed from the track for manual entry, touch the ‘Accept Input’ button to save the information. |
| 9 | Select the sample(s) that is to be defined as emergency and touch the ‘Emergency’ button. A red dot will indicate the emergency status. |
| 10 | When all samples are entered, perform test ordering. |

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| **Ordering of Tests** | |
| 1 | For Controls, see the TANGO ABO/Rh Antibody Screen QC Procedure. |
| 2 | Select the ‘Samples’ button on the Main Menu. This will open the ‘Sample Loading’ window. The window will also open when sample racks are initially loaded and will display as long as the sample chamber door remains open.   * The ‘Sample Loading’ window will display the loaded racks on the left side of the screen. * The sample type, sample ID, assay and/or profile buttons will be displayed in the center of the screen. * Profiles appear at the top right of the screen. * Assays appear at the bottom right of the screen. |
| 3 | Touch the desired rack on the screen. In the ‘Sample ID’ area, the samples of the selected rack are displayed. |
| 4 | Select the desired sample by touching the corresponding sample in the Sample ID field. |
| 5 | Assign the desired assay or profile by selecting the respective button or buttons.   * An assay or profile has been assigned when the green indicator appears on the button. * Rack ‘B’ for donor unit retypes automatically default to ABO and Rh testing. * Rack ‘N’ for patient samples automatically defaults to TSCR testing. * If an incorrect assay or profile has been assigned, touch the button a second time to deselect. A red indicator will appear on the button. * If all samples in a rack have the same assay/profile, touch the ‘All’ button after requesting the appropriate assay/profile for the first sample. The TANGO will assign that assay or profile to the entire rack. |
| 6 | Continue steps 2-4 above to assign assays/profiles to all racks loaded. |
| 7 | When finished, close the sample chamber door and the ‘Sample Loading’ window will automatically close and accept the assigned assays/profiles. |
| 8 | The profile buttons will have a green indicator as soon as the rack is inserted. |
| **Step** | **Actions** |
| **Starting a Test Run** | |
| 1 | After plates, samples and reagents have been loaded and the appropriate tests have been ordered, touch the ‘Start’ button in the Main Menu.   * Confirm the correct number of tests have been ordered by comparing the sample number to the “demands ready to process” number. * The system checks to ensure that all reagents and resources are loaded on the analyzer. * The maximum number of samples which can be started at one time is limited to 144. |
| 2 | Touch the ‘OK’ button when the system check indicates that the instrument can be started. |
| 3 | If the ‘Start’ window indicates that not all necessary reagents are on the TANGO and the run cannot be started, select ‘Cancel’ and load the missing reagents/resources.   * After loading missing reagents/resources, touch ‘Start’ from the Main Menu or touch ‘Start’. * The ‘Start’ button can also be selected before missing reagents/resources are loaded. The TANGO will complete testing for which the reagents are available. When testing is completed, additional reagents can be loaded and ‘Start’ pressed again to complete the previously ordered tests.   NOTE: If plates are missing, ‘Start’ cannot be selected. Touch ‘Cancel’ and load missing plates. |

**Referenced Documents:**

Tango Optimo User’s Guide Version 3.3

Supplement to Tango Optimo User’s Guide Version 3.0.3