1. **Principle**

The Galileo NEO is suitable for operation 24 hours a day. Initialization and daily maintenance must be done every 24 hours. The instrument must be powered down once a day as part of daily maintenance.

Capture-R® Ready Indicator Red Cells can be used no more than 24 hours after a stir ball has been added to the vial. Vials of reagents other than Indicator Red Cells that have remained continuously on the Galileo NEO for 72 hours (3 days) should be removed and replaced with fresh vials. Vials of reagents other than Indicator Red Cells that are removed from the Galileo NEO when not in use and refrigerated can be used up to their expiration dates. DAT control cells once open and loaded on the NEO expire after 7 days.

1. **Scope and Related Policies- N/A**
2. **Specimen**
   1. Centrifuged EDTA whole blood is used to perform “3\_cell” and “ABORH” assay.
   2. EDTA plasma or serum may be used to perform the “3\_ cell” antibody screen.
   3. It is important to check the anticoagulated EDTA samples for the presence of clots and/or hemolysis prior to testing. If a clot is present, the centrifuged plasma may be separated from the red cells and tested on NEO for the 3 cell screen. The red cells must not be run on the NEO. The ABO and Rh must be tested manually if enough free cells remain after separation, or a new sample must be requested.
   4. Samples that exhibit excessive hemolysis, lipemia or are icteric should not be tested on the Galileo NEO. Samples that exhibit a hemolysis grade of 3+ or greater must not be tested on the Galileo NEO because they may generate erroneous results. Process any such samples by hand or request a new sample.
   5. For assays using Capture-R® Select, do not use hemolyzed samples of grade 1+ or greater for creating a monolayer. Fragmented red blood cell membranes will interfere with monolayer formation.
3. **Material**

Equipment: Immucor Galileo NEO

Supplies: System Liquid container

Liquid waste container

Plate carriers

Reagent/Donor/Sample racks

Reagents: Anti-A series 1

Anti-B series 3

Anti-D series 4

Anti-D series 5

Monoclonal control

Reverse A1 and B cells

Capture LISS

DAT control cells

CMT strips

Greiner ABO plates

Capture-R ready-Screen (3)

Capture-R Ready-ID, Extend I & II

Capture-R Select

Capture-R Indicator Cells

CorQc Std

Capture-R serum controls

PHIX

1. **Quality Control**
   1. Refer to Galileo NEO QC
2. **Procedure**
   1. Pre-running start-up
      1. Log on/off using first key on the upper left hand side of the screen.
      2. Verify that QC has been performed.
      3. Initialize instrument once every 24 hours by pressing the second key in the upper left hand side of the screen. Follow the instructions on the screen. This is usually done as part of daily maintenance.
      4. Perform daily maintenance. Refer to NEO maintenance.
      5. Verify that liquid waste container is empty and PBS container is full.
   2. Performing a run
      1. Click on the Start Run Assistant (running man), third key on the upper left hand side of the screen.
      2. Select “Load Samples” on the following screen.
      3. Load sample rack into the first available green lane in the 14 lane bay.
      4. Select tests in the right hand column.
      5. Click “Done” key on the left hand bottom corner.
      6. Click “Load Resources” on the following screen.
      7. This screen will show Assay name, # of samples/strips and resources required.
      8. A green checkmark means resources are available. A red exclamation means resources are not loaded. Gray keys mean not required.
      9. If you haven’t already done so, load reagents.
      10. There are three reagent racks available. 12,9 and 5 position.
      11. The 14 lane bay has the last four lanes dedicated to reagent racks. Reagent racks take up two lanes and sit on top of stir bar.
      12. One 12 position reagent rack will always be loaded in the 14 lane bay with standard reagents to do T/S, DAT, Wk D, panels.
      13. All controls must be loaded into the 14 lane bay due to pipetting requirements.
      14. 9 and 5 position reagent racks are loaded into the 5 lane bay. 5 position rack holds 57 ml bottles of LISS and sample diluent and is loaded into the first three lanes with no stir bar.
      15. Load required number of strips into plate and then plate carrier, matching A1 to A1.
      16. Load plate carriers into plate loading tower. Close door once lights change to amber. Instrument will ID plates.
      17. Perform strips selection on plate screen.
      18. Highlight assay names on screen and push start.
      19. When the testing is complete the certain plate reports will print. See 7.0 Reporting
   3. Stat Testing

The Galileo NEO will do STAT testing. However depending on the type of tests already running, the sample may not be initiated immediately.

1. **Reporting**
   1. Once batch is finished, certain plate reports will print.
   2. Click on “Results”, 6th key on the top of the main screen.
   3. Review and edit all equivocal results.
   4. Highlight, approve and export results to Cerner LIS.
   5. Verify results in LIS.
   6. Give specimens and requisitions to routine bench technologist to perform further testing as required and for check to be performed.
2. **Procedural Notes**
   1. Manual Identification of Reagent(s)

Whenever a reagent cannot be identified a blank space will appear on the 14 or 5 lane bay.

* + 1. Remove the corresponding reagent rack, select lane and reinstall.
    2. If the error occurs again. You may remove rack, press recall and scan the barcode x2. Replace rack in the same lane.
  1. Manual Identification of Sample(s)

Whenever a sample cannot be identified a blank space will appear on the 14 lane bay.

* + 1. Remove the corresponding sample rack. Press recall.
    2. Scan the sample barcode x2.
    3. Replace rack in the same lane.
  1. Partially used strips cannot be reused.

1. **References**
   1. Galileo NEO Operator Manual, Chapter 7