1. **Principle**
   1. WB corQC is used to evaluate the performance of Anti-A, Anti-B, Anti-D and the corresponding Rh control material, serum (reverse) grouping red blood cells and red blood cell antibody screening reagents by automated methods.
   2. The QC must meet or exceed parameters set by the manufacturer and Transfusion Medicine division in order for test results to be accepted as valid.
2. **Scope and Related Policies**
   1. QC on A/B/D monoclonal forward and reverse grouping and Capture-R Ready Screen strips must be run once per 24 hour time period. This time frame has been configured within the software and cannot be over-ridden. QC must also be run regardless of time elapsed since the last QC testing interval when one or more of the following events occurs:
      1. New lot number of reagents or strips is introduced. (This does not apply to PBS).
      2. Maintenance of any kind is performed prior to or between runs
   2. The parameters for QC testing to be deemed acceptable are as follows:

(Tube **1**) A Rh (D) Pos, red blood cells containing anti-B and anti-c

(Tube **2**) B Rh (D) Neg, red blood cells containing anti-A and anti-D

(Tube **3**) O Rh (D) Pos, red blood cells containing anti-A and anti-B

(Tube **4**) O Rh (D) Pos, red blood cells containing anti-A and anti-B

* + 1. A system QC pass or fail is dependent on the testing results and how they compare to preset expected results
    2. If expected results are not achieved the system will determine testing as “QC Fail”
    3. The system configuration does not allow specimen processing to proceed if a “QC Pass” is not obtained at the designated interval. Should one or more of the QC specimens fail to meet required criteria, all QC specimens must be repeated prior to processing patient specimens. Echo software will not interpret the QC interval as a “Pass” unless all four QC specimens are within limits.

1. **Specimen**
   1. WB corQC is prepared from red blood cells collected from human blood donors and a suspending medium containing antibodies to some common red blood cell antigens. Each individual donation contains the appropriate ABO and Rh blood group antigens. A set of WB corQC is composed of four tubes of varying antigenic and antibody makeup.
      1. The controls must be used at room temperature (18-25°C).
      2. Vials require to be centrifuged prior to first use. Centrifugation must be performed according to the standard laboratory practice for the centrifugation of patient samples. Subsequent upright refrigerated storage eliminates the need for further centrifugation unless the samples have been mixed.
2. **Material**

Equipment: Immucor Galileo Echo

Supplies: Liquid waste bottle (1)

PBS bottle (1)

Stir balls

Strip holders/trays

Reagent/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

CMT strips

Capture-R ready-Screen (3)

Capture-R Indicator Cells

WB corQC

PHIX buffered saline

1. **Quality Control- N/A**
2. **Procedure**
   1. Remove all four vials of WB corQC from refrigerator.
   2. Warm centrifuged QC to ambient temperature (18-25°C) before use.
   3. Ensure adequate volume of PBS.
   4. Empty the liquid waste container if necessary.
   5. Load reagents and strips.
   6. Remove color coded screw caps from QC.
   7. Load QC samples on to the Echo.
   8. Click on the running man.
   9. Select Group and screen. Click Next.
   10. Select samples. Click next.
   11. Click Begin Tests.
3. **Reporting**

When testing has completed, review results. If QC has passed, order TMQC Echo daily under the BB Gen QC patient in Cerner. Result the Qc as complete in Cerner.

1. **Procedural Notes**
   1. The above procedure also controls Capture antibody panels (Ready-ID, Extend I and Extend II).
   2. WB corQC is also used as a control for Weak D testing on the Capture-R select strips. Order Weak D testing on all four vials.
   3. Weak D, DAT and crossmatches procedures on Capture-R select strips also require the use of DAT control cells. Please refer to ECHO.005, 006, 007.
2. **References**
   1. Refer to ”Performing a Run on the Echo”
   2. Galileo Echo Operator Manual